

Do looks matter for hosts on the peer-to-peer sharing accommodation market?

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ABSTRACT

The presence of hosts' profile photo on peer-to-peer accommodation platforms is likely to influence consumers' judgments and purchase behavior. Based on the stimulus–organism–response theory and mental imagery theory, this study examines the existence and mechanisms of beauty premium via experimental designs. Results indicate that consumers tend to book and pay more for an accommodation offered by an attractive host, and these effects are mediated by potential consumers' perceived enjoyment and threats regarding their future stay. The study also highlights two factors that can weaken consumers' reliance on hosts' facial attractiveness when making purchase decisions: hosts' reputation and self-disclosure. This study enriches the literature on the beauty premium and ways to reduce consumers' reliance on hosts' facial attractiveness.

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Introduction

The emergence of short-term rental spaces in tourism has popularized peer-to-peer accommodation platforms such as Airbnb. By facilitating the trading of room spaces between citizens, peer-to-peer accommodations have disrupted the hotel industry (Dolnicar & Zare, 2020). Despite the prevalence of peer-to-peer accommodation platforms, multiple stakeholders have identified ambiguity about the quality of listings, hosts, and services (Li et al., 2022). Transactions on these platforms often occur among people who do not know each other; therefore, uncertainty pervades consumers' decision-making (Barnes & Kirshner, 2021). Hosts are encouraged to share authentic personal photos to mitigate consumers' concerns (Ert et al., 2016). Therefore, it is worth exploring how photo disclosure influences consumers' attitudes and behavior.

Drawing upon the stereotype of attractiveness, captured by the adage “what is beautiful is good” (Dion et al., 1972), academic work on facial attractiveness has revealed that people respond especially positively to beautiful objects (Gangestad & Simpson, 2000). This phenomenon is known as the “beauty premium”: people tend to perceive attractive individuals as possessing pleasant qualities (Fink et al., 2006). For example, Jaeger et al. (2019) revealed that hosts' facial attractiveness positively influenced Airbnb listing prices. Scholars have since begun to call attention to ugliness (i.e., low facial attractiveness), suggesting that its impact is not always negative (Peng et al., 2020). An ugliness premium may exist wherein unattractive people are seen as more competent; that is, unattractive people are thought to compensate for their appearance in other ways (Peng et al., 2020). Peng et al. (2020)

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concluded that hosts' facial attractiveness correlates with Airbnb occupancy rate in a U-shaped manner. Conversely, other authors have identified an inverted U-shaped effect of hosts' facial attractiveness on consumers' booking behavior on Tujia, a Chinese peer-to-peer accommodation platform (Li et al., 2022). Overall, however, researchers have yet to reach a consensus on the role of facial attractiveness in the peer-to-peer accommodation market (Barnes & Kirshner, 2021; Jaeger et al., 2019).

Different from other "pay-and-go" purchases, peer-to-peer accommodation platforms (e.g., Airbnb) involve remote online transactions and future stays. This two-stage process complicates accommodation reservations, as consumers' decisions are influenced by their feelings at the time of booking and expectations about their upcoming experience. Consumers also create mental imagery to anticipate consumption during pre-purchase deliberations (Kim et al., 2021). Studies have mainly linked hosts' facial attractiveness with perceived trustworthiness (Ert & Fleischer, 2020; Li et al., 2022). Most work has overlooked the role of consumption vision, evoked by the visual stimulus of hosts' facial attractiveness in profile photos, during the pre-booking stage. Whether hosts' facial attractiveness elicits distinct consumer expectations about future consumption and different consumer responses remains under-explored.

To address the above-mentioned knowledge gaps, this study draws upon the stimulus–organism–response theory (Mehrabian & Russell, 1974) and mental imagery theory (Goossens, 1994) while exploring three interrelated research questions: (a) does Airbnb hosts' facial attractiveness have significant and linear impacts on consumers' booking intentions and willingness to pay?; (b) what are the psychological mechanisms behind consumers' responses towards hosts with different levels of facial attractiveness?; and (c) what factors may attenuate the effect of hosts' facial attractiveness? Departing from earlier studies, this paper focuses on how consumers' envisioned peer-to-peer stays—and resultant emotional and psychological fluctuations when encountering hosts with different facial attractiveness—affect their purchase decisions. According to the stimulus–organism–response theory, individuals may react to incitements in two polarized ways: by approaching or averting (Kim et al., 2020). These responses activate two different behavioral systems—the behavioral inhibition system and the behavioral activation system (Gray, 1994). Thus, this study further examines the mediating effects of potential Airbnb consumers' mental imagery–based perceived enjoyment and perceived threat.

Furthermore, based on the dangerous decisions theory, Barnes (2021) recently confirmed the overvaluation of the effects of Airbnb hosts' profile images: he contended that the Airbnb host profile image effect should be treated with caution by testing its role alongside more objective host-related measures to reduce overvaluation. As such, the present study also aims to identify factors that may influence the host beauty premium effect. Hosts' reputation and self-disclosure have been identified as key host attributes that influence guests' booking decisions (e.g., Gao et al., 2022); these elements each serve as external information sources and promote consumers' rational judgments. Thus, both are included in this research as supplementary information (i.e., moderators) that may decrease the impact of hosts' facial attractiveness. Findings enrich the current thin literature on the beauty premium in the peer-to-peer accommodation market. Results also inspire managerial recommendations regarding profile photos and ways to reduce consumers' reliance on hosts' facial attractiveness when making purchase decisions.

Theoretical foundations and research hypotheses

Stimulus–organism–response theory

Stimulus–organism–response theory was taken as the theoretical foundation of this study. The model, proposed by Mehrabian and Russell (1974), states that the external environment acts as a stimulus that affects one's thoughts and emotions. These stimulated cognitions and emotions lead to either convergent or avoidant behavior (So et al., 2020) as follows: external stimulus → cognitive/emotional organism → response (Eroglu et al., 2003). Stimulus–organism–response theory has been extensively applied to understand consumers' decision-making in tourism and hospitality (e.g., Kim et al., 2020). In particular, it has been suggested as a suitable model to examine the impact of a visual stimulus (Knudsen et al., 2015). In this study, hosts' facial attractiveness serves as the stimulus, consumers' emotions (e.g., perceived enjoyment and perceived threat) constitute the organismic experience, and consumers' booking intentions and willingness to pay for accommodation represent the final responses.

Mental imagery, behavioral inhibition system, and behavioral activation system

Goossens (1994, p. 119) suggested a mental imagery processing model "to describe how information is mentally represented and how it affects consumers' emotional responses and behavioral intentions". Consumption vision is a form of mental imagery devoted to visual and imaginal processing that varies from conventional textual and semantic processing (Phillips et al., 1995); it is highly correlated with one's emotional state and shapes behavior (Goossens, 2000). Walters et al. (2012, p. 368) defined consumption vision as "visual images of certain product related-behaviors and their consequences—they consist of concrete and vivid mental images that enable consumers to vicariously experience the self-relevant consequences of product use".

Tourism literature has demonstrated that consumers can conjure up a consumption vision (e.g., a vacation experience) through vivid information from destination advertisements, which can then boost their travel intentions (e.g., Walters et al., 2012). Such information draws and keeps attention while evoking mental imagery and stimulating one's imagination (Walters et al., 2012). Consumption vision also enables individuals to vicariously experience product consumption before making a purchase: with concrete images of interacting with a desired product and experiencing its consequences, consumers can plan for an uncertain future. In this way, consumers can mentally test alternatives and pick the one that best meets their values and goals to have the greatest enjoyment during the consumption.

In mental imagery processing, consumers translate future consumption visions into current motivators. Customers might make inferences when assessing an object's benefits and costs during decision-making. Doing so can inspire approach- or avoidance-motivated behavior. Consumers' behavior is often guided by opposing motivational systems, namely the behavioral inhibition system and the behavioral activation system (Gray, 1994). The behavioral inhibition system is related to one's response to a threat; it is particularly sensitive to penalty signals and acts in a way to avoid or disengage from the threat. The behavioral activation system involves one's responses to rewarding incentives and drives approach-related motivation (Sutton & Davidson, 1997). This behavioral system theory is frequently used to study the effects of motivational/emotional variables (van Zeeland & Henseler, 2018), and thus is considered a compatible theoretical lens to interpret consumers' emotional state in this study.

Effects of hosts' facial attractiveness on peer-to-peer accommodation platform

Within the peer-to-peer accommodation market, building a "good" impression is essential to earning positive accommodation evaluations (Fan et al., 2021), and the human face is one of the most impactful sources for attracting visual attention and forming first impressions (Hung et al., 2016). People develop innate perceptions and attitudes about others based on facial features within 100 milliseconds (Bar et al., 2006). This phenomenon is known as face trait inference, where an observer makes assumptions about another person's possible traits (e.g., trustworthiness and aggressiveness) based on that person's facial features (Zebrowitz & Montepare, 2005). This process does not require cognitive effort—in fact, it can be completed within as few as 13 milliseconds—and the results are generally stable (Olson & Marshuetz, 2005).

Facial attractiveness is such a salient visual cue in interpersonal relationships that a halo effect can emerge, subsequently creating beauty premium effects (i.e., more booking behavior) (Peng et al., 2020). Hosts' profile photos on Airbnb could serve as valuable visual stimuli affording consumers greater insight into hosts' characteristics. Stimulus–organism–response theory suggests that consumers respond to visual stimuli (i.e., profile photos) during decision-making process, which may affect booking intentions and willingness to pay. Barnes and Kirshner (2021, p. 3) also argued that "unreflective traits rapidly inferred from photos can significantly influence how subsequent information is processed, which impact people's decisions". Individuals with high facial attractiveness are often seen as possessing desirable attributes, such as optimism, kindness, confidence, warmth, and sociability (Eagly et al., 1991). Beauty represents positive traits in most cases (Fink et al., 2006). Studies in various areas have indicated that people respond positively to facial attractiveness (i.e., the beauty premium).

However, the beauty premium in Airbnb only began to garner academic attention in the past few years. An overview of the literature on the impacts of hosts' facial attractiveness in online peer-to-peer accommodation market can be found in Appendix A. For example, Barnes and Kirshner (2021) and Jaeger et al. (2019) found that Airbnb hosts' facial attractiveness was positively associated with listing prices. The decision to book an accommodation (or not) and consumers' willingness to pay represent core components of purchase decisions in the Airbnb context. Based on the above discussion, hosts' facial attractiveness in profile photos (depicting an effective visual stimulus) is presumed to evoke positive consumer responses, including higher booking intentions and willingness to pay. The following hypotheses are proposed accordingly:

H1a. : Hosts' facial attractiveness positively affects consumers' booking intentions.

H1b. : Hosts' facial attractiveness positively affects consumers' willingness to pay.

Mediating effects of perceived enjoyment and perceived threat

Facial attractiveness is a stimulus with which people judge and form impressions of others. An approach or avoidance response of consumers can be generated by a stimulus with high or low facial attractiveness (i.e., of hosts) respectively, thus activating the behavioral activation or inhibition system (Goossens, 2000). As mentioned, one's envisioned future consumption experience while interacting with the host is closely tied to one's emotional state. Perceived enjoyment is one such state that strongly shapes consumers' attitudes towards Airbnb (So et al., 2020). Cognitive neuroscience has revealed that attractive faces engender more positive emotions in observers (Cloutier et al., 2008). Imagined interactions with beautiful people or imagined future stays in beautiful people's houses are also likely to be pleasant (Dion et al., 1972) because attractive faces activate the brain's reward system (Hahn & Perrett, 2014). Anticipating perceived enjoyment in response to high facial attractiveness drives positive consumer responses (i.e., higher booking intentions and willingness to pay). Perceived enjoyment also raises consumers' likelihood of expressing positive attitudes when choosing an accommodation (Lu et al., 2009). Envisioning hosts with warmer, friendlier, and better social personalities, owing to the halo effect, could lead consumers to book an accommodation. When consumers see an attractive host on Airbnb, they are likely to imagine a more positive future stay. This consumption vision strengthens their behavioral activation system along with their responses as hypothesized:

H2a. : Perceived enjoyment positively mediates the influence of hosts' facial attractiveness on consumers' booking intentions.

H2b. : Perceived enjoyment positively mediates the influence of hosts' facial attractiveness on consumers' willingness to pay.

Consumers are security-oriented when choosing peer-to-peer accommodation (Fagerstrøm et al., 2017), such that people consider their personal safety when making decisions on Airbnb (Fagerstrøm et al., 2017). Perceived threat refers to a sense of unease tied to the fear that something bad might happen (Renfro et al., 2006). Individuals can judge perceived threat based on others'

facial expressions within 39 milliseconds (Bar et al., 2006). This face-based threat perception is often associated with stereotypes about low facial attractiveness. People with less attractive faces are assumed to be less kind, honest, and friendly compared with more attractive people (Eagly et al., 1991). In the context of Airbnb, this threat arises from one's perception of a host and from concerns about a future stay. When confronted with a less attractive host, people might imagine greater threats during their experiences and thus initiate behavioral inhibition system, which will diminish their booking intentions and willingness to pay. Less attractive faces typically evoke negative emotional states (i.e., perceived threat) and avoidance (So et al., 2020). Avoiding a potentially unfavorable consumption experience should lead consumers to be less likely to book and pay for an accommodation as postulated below:

H3a. : Perceived threats negatively mediate the influence of hosts' facial attractiveness on consumers' booking intentions.

H3b. : Perceived threats negatively mediate the influence of hosts' facial attractiveness on consumers' willingness to pay.

Moderating effects of hosts' reputation

Liang et al. (2019) suggested that more information is needed for consumers to evaluate whether property listings and hosts are credible and reliable on peer-to-peer accommodation platforms. Hosts' reputation has been found to reduce perceived risk and choice uncertainty, promote trust in transactions, and spur product sales (Zhang et al., 2022) by endorsing hosts' high service quality and positive feedback (Liang et al., 2017). Signaling theory also supports this pattern (Spence, 1978), implying that agents can effectively communicate information to receivers by reinforcing beneficial signaling cues (Patrick et al., 2005). When consumers make purchase decisions with uncertainty on peer-to-peer platforms, hosts' good reputation can facilitate this process by strengthening positive signals to eliminate ambiguity about product quality and induce favorable decisions. In this case, reputation is hosts' record of past behavior, mainly including online reviews, review ratings, and whether the host has been named an Airbnb "Superhost" (Gao et al., 2022).

It is therefore reasonable to infer that a host with a positive reputation provides decision makers with salient information. Their tendency to form subjective judgments based on the consumption vision evoked by hosts' facial attractiveness therefore declines. The presence of clear information regarding hosts' positive reputation facilitates rational thinking as consumers weigh available information and depend less on intuition (e.g., feelings and perceptions). By contrast, upon encountering a less reputable host, consumers grapple with greater uncertainty and fewer decision signals. The presence of an attractive profile photo is one of the few pieces of information to which consumers can refer, based on which the beauty premium effect could manifest. The following hypotheses are hence put forth:

H4a. : Hosts' reputation negatively moderates the mediating effect of perceived enjoyment for the influence of hosts' facial attractiveness on consumers' booking intentions.

H4b. : Hosts' reputation negatively moderates the mediating effect of perceived enjoyment for the influence of hosts' facial attractiveness on consumers' willingness to pay.

H4c. : Hosts' reputation negatively moderates the mediating effect of perceived threat for the influence of hosts' facial attractiveness on consumers' booking intentions.

H4d. : Hosts' reputation negatively moderates the mediating effect of perceived threat for the influence of hosts' facial attractiveness on consumers' willingness to pay.

Moderating effect of hosts' self-disclosure

In the peer-to-peer accommodation context, hosts' self-disclosure entails the personal details and additional information that a host actively presents to consumers (Le et al., 2017). Such descriptions are found to play an important role in host-guest relationship development (Whitty, 2008). This phenomenon is underpinned by social penetration theory, which posits that interpersonal relationships become closer when people voluntarily open up to each other (Altman & Taylor, 1973). Under this theory, self-disclosure includes two dimensions: breadth (the number of topics that can be covered; e.g., hosts' personalities) and depth (the degree of private or personal information revealed) (Zhang et al., 2022). A high level of host information disclosure can reduce uncertainty, mitigate stranger-danger bias, foster trust, and benefit consumers' decision-making (Ert et al., 2016; Zhang et al., 2022). In particular, the identity, characteristics, and emotions displayed in hosts' self-disclosure increase multi-perspective information and thus facilitate guests' rational thinking when making decisions (Liu & Park, 2015).

In addition to the actual amount of information provided through greater self-disclosure, such exposure increases consumers' perceived trust and sincerity of the host (Liang et al., 2019). Consumers' tendency to immediately rely on hosts' facial appearance/attractiveness will likely decrease substantially upon seeing a host with high self-disclosure. Conversely, upon encountering a host with little self-disclosure, consumers' perceptions of the host's authenticity and integrity should be greatly diminished. When consumers are not allowed to make inferences about hosts' characteristics from other information, stereotypes based on hosts' facial attractiveness can bias consumers' decisions. Scholars (Liang et al., 2020; Zhang et al., 2018) have also confirmed that consumers

are more likely to book and post reviews for Airbnb listings with more detailed host descriptions. The following hypotheses are proposed thusly:

H5a. : Hosts' self-disclosure negatively moderates the mediating effect of perceived enjoyment for the influence of hosts' facial attractiveness on consumers' booking intentions.

H5b. : Hosts' self-disclosure negatively moderates the mediating effect of perceived enjoyment for the influence of hosts' facial attractiveness on consumers' willingness to pay.

H5c. : Hosts' self-disclosure negatively moderates the mediating effect of perceived threat for the influence of hosts' facial attractiveness on consumers' booking intentions.

H5d. : Hosts' self-disclosure negatively moderates the mediating effect of perceived threat for the influence of hosts' facial attractiveness on consumers' willingness to pay.

Fig. 1 illustrates the corresponding research model and theoretical foundations. This study aims to emphasize how hosts' profile photos, as visual information, elicit consumers' emotional responses and influence their subsequent behavior. Stimulus–organism–response theory serves as the core theoretical foundation: it conceptualizes consumers' emotional reactions (organisms; i.e., consumer perceptions) based on aesthetic stimuli (antecedents; i.e., facial attractiveness) and their behavioral consequences (responses). This research also concerns how consumers envision their future stay and resultant behavior. Mental imagery theory is thus adopted to strengthen the organism process.

Considering that consumers may translate future consumption intentions into distinct motivators in mental imagery processing, we further introduce the behavioral activation system and behavioral inhibition system to elucidate two opposing internal impact paths (i.e., perceived enjoyment and perceived threat). Hosts' reputation and self-disclosure are beneficial external information sources that may diminish consumers' emotional judgments and encourage more rational decisions. These two factors therefore serve as supplementary information (i.e., moderators) that we expect to attenuate the impact of hosts' facial attractiveness. Signaling theory and social penetration theory underpin this conjecture.

Method

A pilot study (see Appendix B) and three studies were performed to test the hypotheses. Study 1 included a main experiment and a supplementary experiment (Study 1A) to test the effect of hosts' facial attractiveness on consumers' booking intentions (H1a), the internal mechanisms behind this impact (i.e., the mediating effects of perceived enjoyment and perceived threat; H2a and 3a), and whether the effect of hosts' facial attractiveness on consumers' responses was linear. Study 2 further verified the effect of hosts' facial attractiveness on consumers' willingness to pay (H1b) along with the mediating effects of perceived

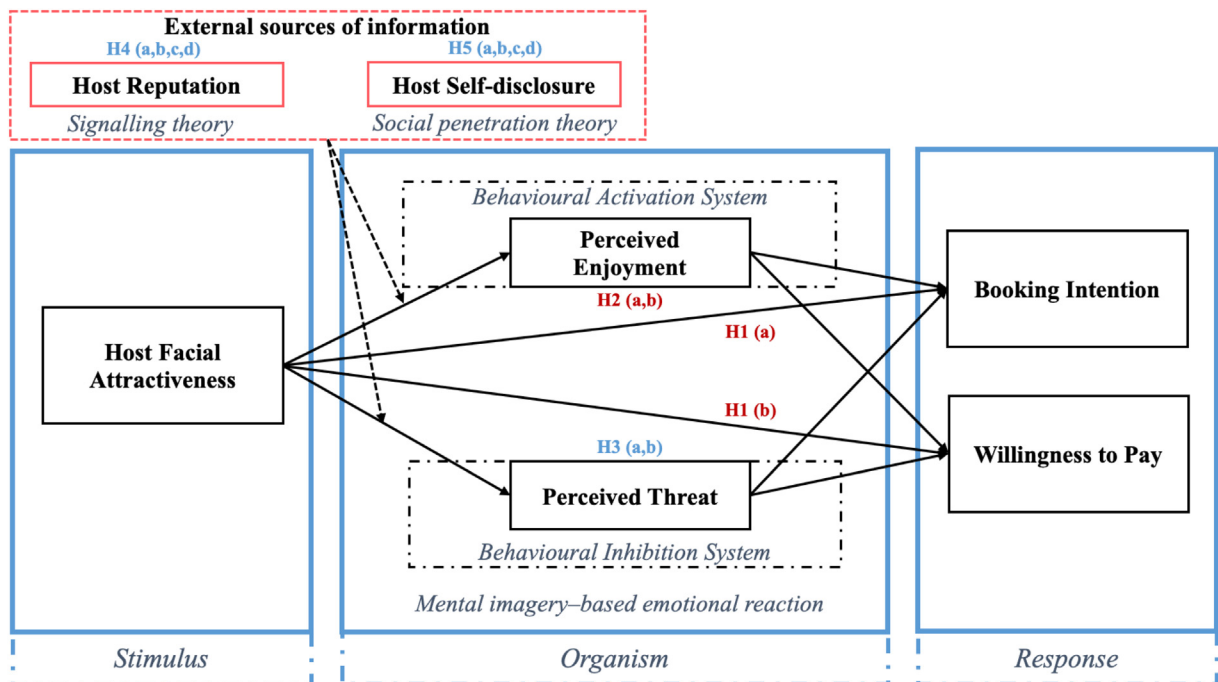


Fig. 1. Proposed research model and theoretical foundations.

enjoyment and perceived threat (H2b and 3b). The moderating effect of hosts' reputation on the indirect influences of hosts' facial attractiveness was tested on consumers' booking intentions and willingness to pay via perceived enjoyment and perceived threat (H4a–4d). Study 3 assessed the moderating effect of hosts' text-based self-disclosure on the indirect influences of hosts' facial attractiveness on consumers' booking intentions and willingness to pay through perceived enjoyment and perceived threat (H5a–5d).

As indicated in Appendix A, most studies in this vein have focused on Western faces (e.g., Jaeger et al., 2019). This study is unique in its use of Asian faces as experimental stimuli. China was chosen as our research context for specific reasons: its peer-to-peer accommodation market is growing in its offerings and transactions, but this market's effects on consumer behavior remain understudied. To minimize the potential gender effect of the host, only female hosts were presented in the experimental materials. At the same time, we also considered the potential moderating effect of bookers' gender; no significant effect was found, and thus it was excluded from the following discussion. All experiments were designed and conducted in Chinese (see Appendix C for a summary).

Study 1

Design and participants

Study 1 included a 2-group (hosts' facial attractiveness: high vs. low) between-subjects design to test the effect of hosts' facial attractiveness on consumers' booking intentions. It should be noted that, in a supplementary experiment a third group (i.e., plain-looking hosts) was also included to further explore whether the effect of hosts' facial attractiveness on consumers' booking intentions was linear (Study 1A). Appendix E provides the details of Study 1A. Results were consistent with those of the initial two groups.

According to G*Power analysis, at least 59 participants were required for each condition to achieve 85 % power with a medium effect size. Monetary rewards were offered as an incentive to participants recruited from a survey platform (<https://www.wjx.cn/>). Considering that the experimental materials were based on Asian faces (see Appendix C), we selected Chinese participants to prevent cultural and racial differences from interfering with facial attractiveness ratings. Eligible participants had to be over age 18 and had used a peer-to-peer accommodation platform to make a reservation in the last year. The survey contained several attention check questions to exclude individuals who failed to respond with care. Ultimately, 125 participants passed these screening and attention check questions; 61 were randomly assigned to the unattractive host group and 64 were assigned to the attractive host group. Fifty-nine (47.6 %) of the participants were male. Most participants belonged to one of two age groups: 26–30 years old (28.8 %) and 31–40 years old (41.6 %). The majority (92 %) held at least a bachelor's degree. Regarding monthly income, 36.3 % of participants earned between 8,001 and 12,000 RMB, while 32.8 % earned 5,000–8,000 RMB.

Stimuli and procedures

To begin, participants were instructed to imagine that they were about to book an accommodation for an upcoming trip: "Imagine that you are planning an upcoming vacation. To ensure a perfect trip, the first thing you need to do is to choose a suitable accommodation on Airbnb. After a careful screening process, you have finally found an ideal accommodation with a reasonable price, convenient location, and good facilities. Before making your final decision, you will now go to the host's personal page to view her photo and personal description as well as the reviews she has received." Participants were randomly distributed across the two scenarios: (1) a host with high facial attractiveness or (2) a host with low facial attractiveness. The stimuli for Study 1 appear in Appendix D.

Then, a 7-point Likert scale (1 = *not at all*, 7 = *definitely*) adapted from Confente and Vigolo (2018) with the item "Based on your impression of the host, would you like to book her room?" was used to gauge participants' booking intentions. Next, participants were instructed to answer several questions about their perceived enjoyment and perceived threat. Perceived enjoyment was measured using four items scored on a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*) adapted from Cha (2020) (Cronbach's $\alpha = 0.933$; see Appendix D for the detailed measure). Perceived threat was evaluated using four items scored on a 7-point Likert scale (Cronbach's $\alpha = 0.943$; see Appendix D for the detailed measure) adapted from Liang and Xue (2010). To prevent potential interference, participants' familiarity with the host ("The host looks like someone I know well") was also measured on a 7-point Likert scale. Participants' demographic information was collected as well.

Results

Manipulation check. To determine whether the manipulation of hosts' facial attractiveness was successful, the following question on a 7-point Likert scale: "Based on the photo of the host in the picture above, to what extent do you agree that the host is a facially attractive person?" was asked to participants. An independent samples *t*-test showed that the manipulation was effective ($M_{\text{attractive}} = 6.29$; $M_{\text{unattractive}} = 2.05$; $t = 26.940$, $p < 0.001$).

Booking intention. Based on the results of an independent samples *t*-test, this study revealed that participants preferred to book accommodations from attractive hosts ($M_{\text{attractive}} = 5.81$, $SD = 0.924$) versus from unattractive hosts ($M_{\text{unattractive}} = 3.90$, $SD = 1.502$), and the difference was significant ($t = 8.611$, $p < 0.001$). Hypothesis 1a was thus supported.

Mediation analysis. The mediating roles of perceived enjoyment and perceived threat were examined for the effect of hosts' facial attractiveness on consumers' booking intentions using Model 4 in the PROCESS procedure (Hayes, 2018). First, taking perceived enjoyment as the mediating variable, the indirect effect through perceived enjoyment did not include 0 at a 95 % bootstrap confidence interval ($\beta = 0.8172$, $SE = 0.1026$, lower limit confidence interval [LLCI] = 0.6264, upper limit confidence interval [ULCI] = 1.0244), indicating a significant mediating effect. Second, the operation was conducted with perceived threat as the mediator. The indirect effect also did not contain 0 at a 95 % bootstrap confidence interval ($\beta = 0.2984$, $SE = 0.0982$, LLCI = 0.1136, ULCI = 0.5150) and again suggested a significant indirect effect.

Lastly, a bootstrap mediation test was carried out using PROCESS procedure Model 4, with reference to the test for multiple parallel mediators proposed by Hayes (2018). The two mediating variables operated jointly ($\beta = 0.8211$, LLCI = 0.6311, ULCI = 1.0220). The effect size for perceived enjoyment was 0.7151 ($SE = 0.1036$, LLCI = 0.5182, ULCI = 0.9239); that for perceived threat was 0.1060 ($SE = 0.0561$, LLCI = 0.0141, ULCI = 0.2348). Hypotheses 2a and 3a were therefore supported. Results are summarized in Fig. 2.

Discussion

Study 1 provided evidence that hosts' facial attractiveness can positively influence consumers' booking intentions. The black box of this impact was also unlocked: findings indicated that perceived enjoyment and perceived threat jointly mediated the host beauty effect. Different from prior studies (e.g., Ert et al., 2016) in which perceived trustworthiness was a mediator, this study proposed a different influencing path of hosts' facial attractiveness. According to Goossens's (1994) mental imagery theory, high versus low facial attractiveness can evoke emotional responses through two systems (i.e., the behavioral inhibition system and the behavioral activation system) based on individuals' envisioned future consumption. Perceived enjoyment positively mediated this process: when faced with an attractive host, consumers perceived more enjoyment, which inspired subsequent booking intentions. On the contrary, perceived threat negatively mediated this process; when faced with an unattractive host, consumers perceived a stronger threat, which discouraged subsequent bookings. Such emotional states have been found not to consume excessive cognitive resources but to nevertheless profoundly influence consumers' decision-making (Lemay et al., 2010). Peer-to-peer accommodation thus appears to be a safety-sensitive scenario (Fagerström et al., 2017), such that people are concerned about the pleasantness of their accommodation experience and whether it might threaten their personal safety and property security.

Study 2

Design and participants

A new dependent variable, willingness to pay, was integrated in Study 2 to further test the effect of hosts' facial attractiveness. Another objective of this experiment was to test the moderating role of hosts' reputation. A 2 (hosts' facial attractiveness: low vs. high) \times 2 (hosts' reputation: high vs. low) between-subjects design was used. According to G*Power analysis, 85 % power with a medium effect size can be reached with a total sample size of 204 participants. Participants were recruited in the same manner as in Experiment 1 and randomly assigned to one of the following four groups: (1) an attractive host with a positive reputation ($n = 56$); (2) an attractive host with a negative reputation ($n = 50$); (3) an unattractive host with a positive reputation ($n = 50$); and (4) an unattractive host with a negative reputation ($n = 56$). As in Study 1, Chinese participants over age 18 who had used Airbnb at least once in the last year were invited to take part.

In the end, 212 participants passed the screening and attention check questions. Ninety-one (42.8 %) were male. Many participants fell into two age groups: 26–30 years old (32.1 %) or 31–40 years old (39.6 %). Most (86.3 %) had a bachelor's degree, and

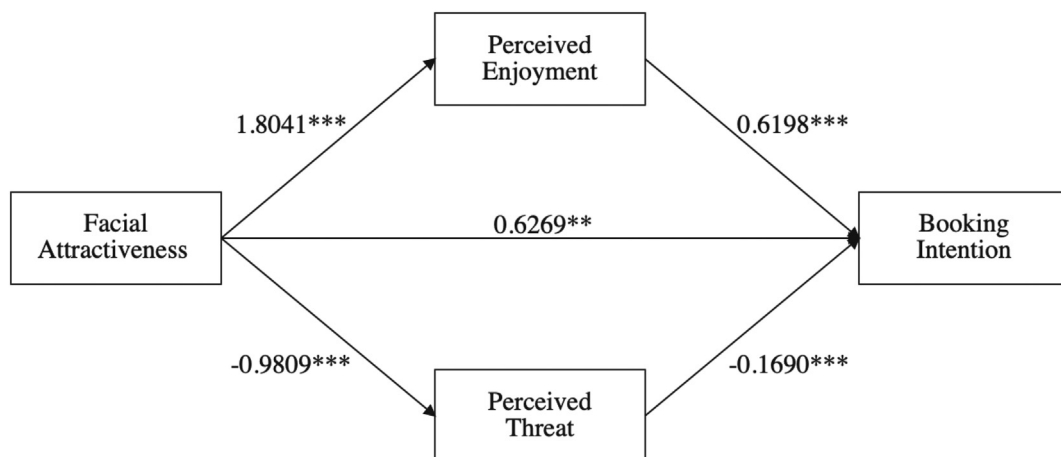


Fig. 2. Mediating effects of perceived enjoyment and perceived threat.

13.4 % had a graduate degree. In terms of monthly income, 34.2 % of participants earned 8,001–12,000 RMB; 24.6 % earned 5,000–8,000 RMB.

Stimuli and procedure

A similar procedure as in Study 1 was used to ask the participants to imagine that they were going to book an accommodation. They were specifically instructed to review the host's personal information (the host in each condition had a different manipulated facial attractiveness and reputation status). Participants were randomly assigned across the above-mentioned four scenarios. Hosts' facial attractiveness was manipulated as in Study 1, while hosts' reputation was manipulated according to the following three pieces of information: (a) presence of a Superhost badge; (b) number of online reviews; and (c) average rating. A highly reputable host had a Superhost badge with a high average review rating and a large number of online reviews; a less reputable host had no Superhost badge and had a small number of reviews with a low average review rating. The stimuli for Study 2 appear in Appendix F.

Participants were next asked about their intentions to book the Airbnb accommodation and their willingness to pay. In addition, questions that measure the participants' perceptions of enjoyment and threat were asked subsequently. The measures on booking intention, perceived enjoyment, and perceived threat were identical to those in Study 1. The measurement of willingness to pay was adapted from Marozzo et al. (2020) and included the following question: "Based on your impression of the host in the picture above, what is the most you would be willing to pay for the house/apartment?". Participants were told to choose the price they deemed appropriate along a sliding bar; the reference price was 218 RMB, and participants could pick any price ranging from 0 RMB to 500 RMB. Finally, participants described their use of peer-to-peer accommodation, such as frequency and attitude. Demographic information was also collected.

Results

Manipulation check. Two manipulation checks were carried out. First, to confirm whether hosts' facial attractiveness was successfully manipulated, participants were asked to answer the question "Based on the photo of the host in the picture above, to what extent do you agree that the host is a facially attractive person?" on a 7-point Likert scale. An independent samples *t*-test suggested that the manipulation was successful ($M_{\text{attractive}} = 5.91$, $M_{\text{unattractive}} = 2.04$; $t = 28.233$, $p < 0.001$). Another question scored on a 7-point Likert scale was asked to discern whether hosts' reputation was manipulated successfully: "Based on the information in the picture above, to what extent do you think the host is a person with a positive reputation?". Participants perceived the stimuli as intended ($M_{\text{high}} = 6.10$, $M_{\text{low}} = 1.96$; $t = 32.390$, $p < 0.001$).

Moderated mediation analysis. As suggested by Viglia and Dolnicar (2020), the statistical software SPSS with PROCESS add-ons is a practical tool for testing mediation and moderation models. Therefore, the moderated mediating effect was investigated using Model 7 in the PROCESS procedure (Hayes, 2018), taking facial attractiveness as the independent variable, perceived enjoyment and perceived threat as parallel mediators, hosts' reputation as the moderating variable, and booking intention as the dependent variable. The test of the equality of conditional indirect effects (index of moderated mediation = -0.2951 ; 95 % confidence interval: LLCI = -0.5745 , ULCI = -0.0744) showed that the indirect effect of hosts' facial attractiveness via perceived threat was much stronger in the low-reputation group ($\beta = 0.4298$; LLCI = 0.1281 , ULCI = 0.7800) than in the high-reputation group ($\beta = 0.1346$; LLCI = 0.0317 , ULCI = 0.2726).

Similarly, the indirect effect through perceived enjoyment was more pronounced in the low-reputation group ($\beta = 0.8877$; LLCI = 0.5571 , ULCI = 1.2275) than in the high-reputation group ($\beta = 0.3502$; LLCI = 0.1133 , ULCI = 0.6056), and there was a significant difference when the indirect effect was compared between the two groups (index of moderated mediation = -0.5375 ; LLCI = -0.9431 , ULCI = -0.1389). Hypotheses 4a and 4c were supported; in other words, hosts' reputation negatively moderated the mediating effects of perceived enjoyment and perceived threat for the influence of hosts' facial attractiveness on consumers' booking intentions. Specific results are outlined in Fig. 3.

PROCESS procedure Model 7 was then performed again with willingness to pay as the dependent variable. Similar findings were obtained: the indirect effect of hosts' facial attractiveness on willingness to pay through perceived enjoyment was positive and significant for high-reputation hosts ($\beta = 13.1407$; 95 % bootstrap confidence interval: LLCI = 4.1149 , ULCI = 23.0839), and this effect was stronger for low-reputation hosts ($\beta = 33.3102$, LLCI = 20.2802 , ULCI = 48.0924). A significant difference emerged in the indirect effect between the high- and low-reputation host groups via the equivalence test (index of moderated mediation = -20.1694 , LLCI = -36.1723 , ULCI = -5.3344). Relatedly, the indirect effect of facial attractiveness on willingness to pay through perceived threat was significant for high-reputation hosts ($\beta = 5.0536$, LLCI = 0.7588 , ULCI = 10.9202), and this effect was amplified for low-reputation hosts ($\beta = 16.1311$, LLCI = 3.3074 , ULCI = 31.6256). A test of the equality of conditional indirect effects between these groups showed a significant difference (index of moderated mediation = -11.0775 , LLCI = -23.0868 , ULCI = -2.1514). Empirical results are displayed in Fig. 4. H1b (i.e., the direct effect of hosts' facial attractiveness on consumers' willingness to pay), H2b and H3b (i.e., the mediating effects of perceived enjoyment and perceived threat), and H4b and H4d (the moderated mediating effect of hosts' reputation on the indirect influences) were all supported.

Discussion

Study 2 demonstrated the moderated mediating effect of the hosts' reputation. Consumers' decisions to book peer-to-peer accommodation and their willingness to pay based on hosts' facial attractiveness were attenuated in the presence of more salient

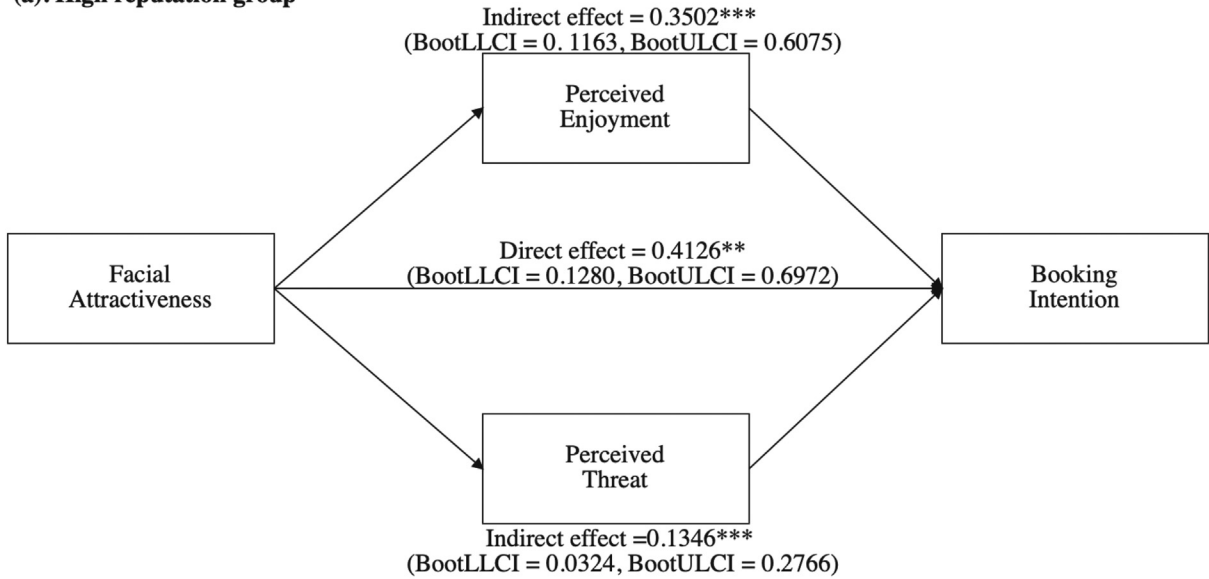
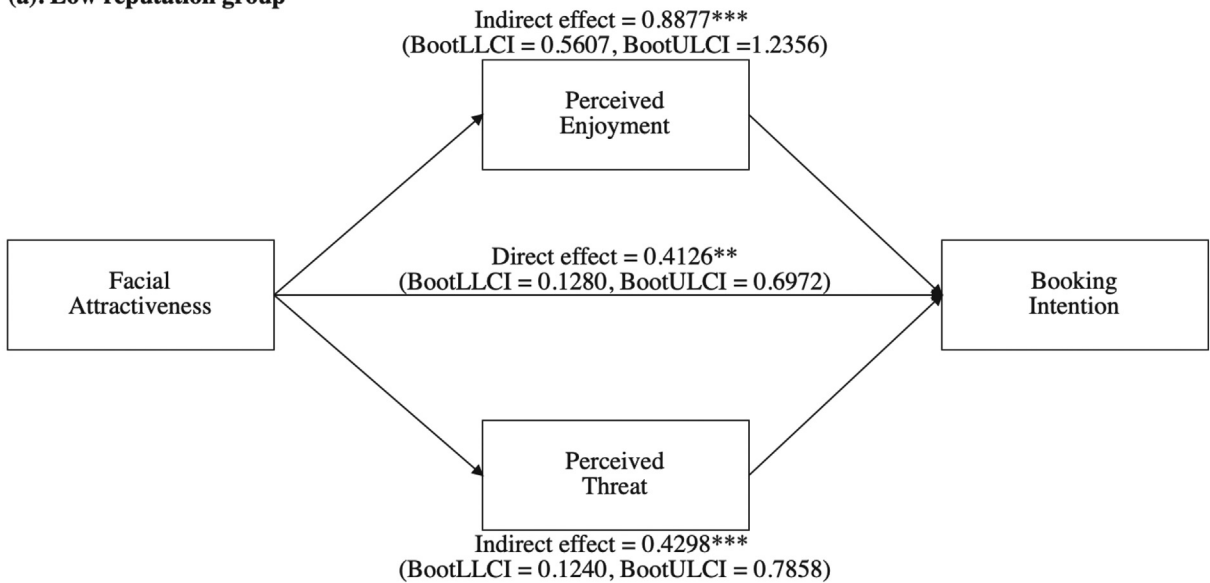
(a). High reputation group**(a). Low reputation group**

Fig. 3. Moderated mediating effect of hosts' reputation with booking intention as the dependent variable.

cues (i.e., hosts' reputation) to guide decisions. These results indicate that hosts' reputation (i.e., Superhost badge, many reviews, and high review ratings) can provide consumers with important information to influence consumers' mental imagery-induced perceptions. Reputation signals often demonstrate hosts' satisfactory historical performance (Gao et al., 2022). In this case, hosts' positive personal reputation significantly reduces consumers' tendency to rely on facial attractiveness when making purchase decisions; a strong reputation provides consumers more salient signs for judgment, greatly diminishing ambiguity. This finding echoes dangerous decisions theory, which claims that intuitive evaluations of the face can bias subsequent assessments; additional information sources are then required for a more balanced judgment (Barnes, 2021). In other words, high-quality and more objective reputation information could temper consumers' initial impressions based on hosts' profile image.

Study 3

Design and participants

This study examined the moderating effect of hosts' self-disclosure via a 2 (hosts' facial attractiveness: high vs. low) \times 2 (hosts' text-based self-disclosure: high vs. low) between-subjects design. Overall, 210 individuals from an online survey platform

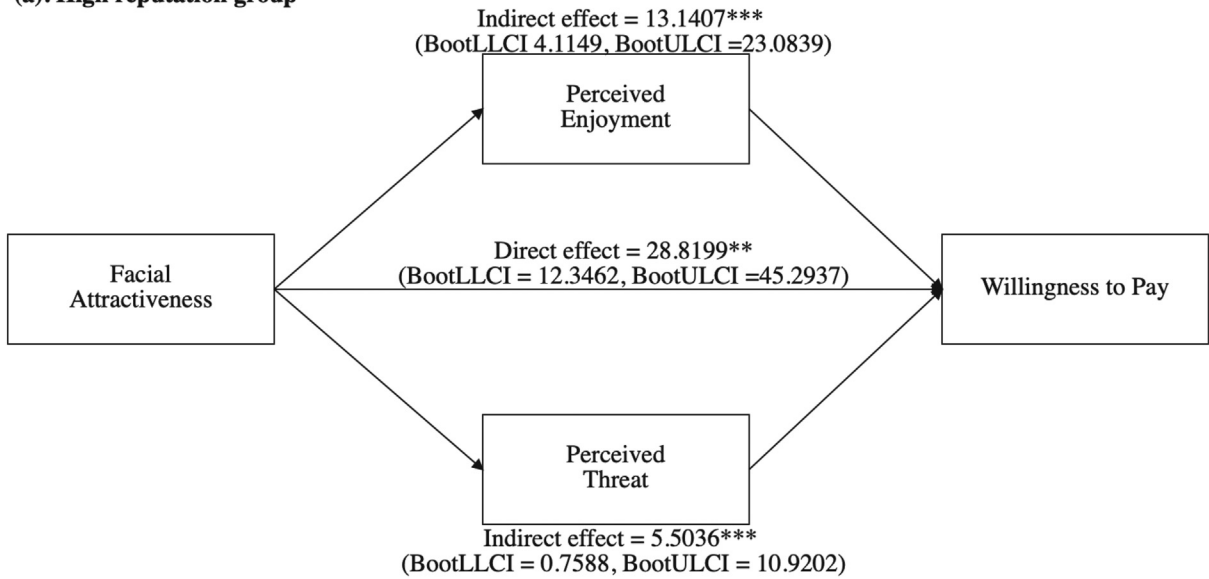
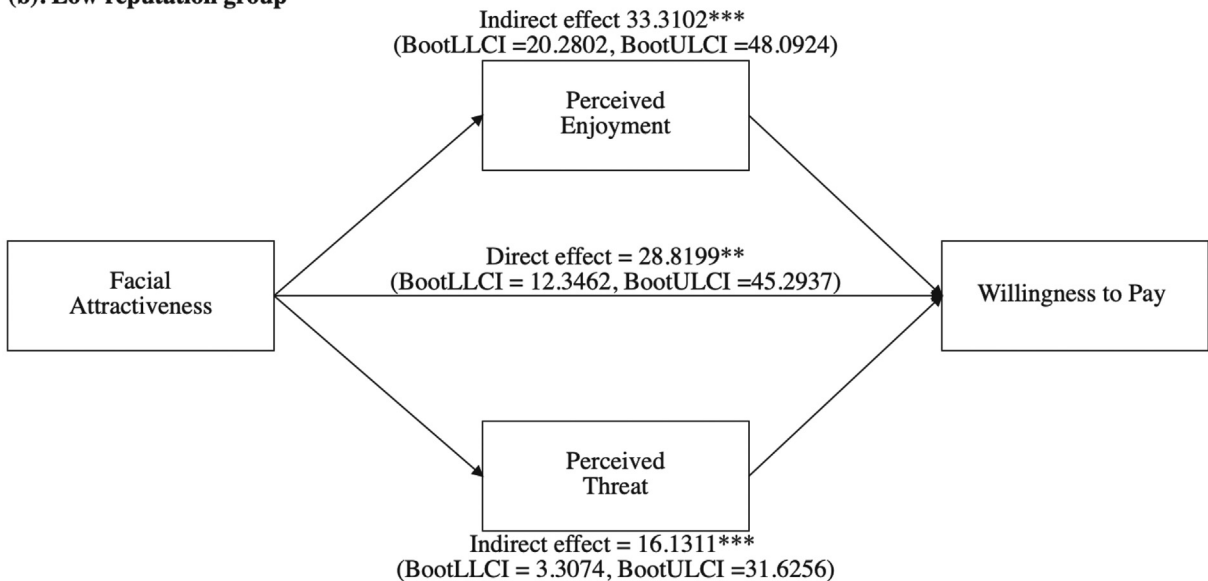
(a). High reputation group**(b). Low reputation group**

Fig. 4. Moderated mediating effect of hosts' reputation with willingness to pay as the dependent variable.

(<https://www.wjx.cn/>) participated in exchange for a monetary reward. The inclusion/exclusion of participants was determined by the pass/fail of attention tests. 203 participants were randomly assigned to the following four situations: (1) an attractive host with high self-disclosure ($n = 47$); (2) an attractive host with low self-disclosure ($n = 52$); (3) an unattractive host with high self-disclosure ($n = 51$); and (4) an unattractive host with low self-disclosure ($n = 53$).

Slightly more than half (56.9 %) of participants were female. The age distribution was similar to that of the prior two studies: 29.6 % were aged 25–30, and 34.7 % were 31–40. Most (81.5 %) had a bachelor's degree. About one-third (31 %) of participants earned 8001–12,000 RMB monthly; 26.4 % earned 5000–8000 RMB.

Stimuli and procedures

Similar to Studies 1 and 2, participants were told to imagine an accommodation booking scenario. After reading information about the accommodation, they would move to the host's home page. Participants were randomly placed into one of the four scenarios described above. Hosts' facial attractiveness was manipulated as in Study 1, whereas hosts' text-based self-disclosure was manipulated in terms of (a) the length of the self-description and (b) the number of topics covered in the self-description. The

greeting “Hi, I’m Qiaodou” was used to manipulate the low self-disclosure condition; a longer self-description covering more aspects of the host was used to manipulate the high self-description condition. Eight common topics, as proposed by Ma et al. (2017), were incorporated into Airbnb hosts’ self-descriptions (i.e., interests & tastes, life motto & values, work & education, relationships, personality, originality or residence, travel, and hospitality). The remaining steps were identical to those in Study 2. The stimuli for Study 3 are provided in Appendix G.

Results

Manipulation check. Two manipulation checks were performed. First, the same question as in Studies 1 and 2 was employed to test if the manipulation of hosts’ facial attractiveness was successful. Per an independent samples *t*-test, participants reported significantly higher ratings for the high facial attractiveness group than for the low facial attractiveness group ($M_{\text{attractiveness}} = 5.95 > M_{\text{unattractiveness}} = 2.34$; $t = 25.431$, $p < 0.001$). The following question was used to check whether the manipulation of hosts’ self-disclosure was successful: “To what extent do you agree that the host has disclosed enough information in the personal description section?” (1 = *strongly disagree*; 7 = *strongly agree*). Participants rated hosts in the high self-disclosure group significantly higher than those in the low self-disclosure group ($M_{\text{high}} = 4.95 > M_{\text{low}} = 2.60$; $t = 12.836$, $p < 0.001$), suggesting that hosts’ self-disclosure was manipulated effectively.

Moderated mediation analysis. Model 7 in the PROCESS procedure was applied to test the moderated mediating effect with bootstrapping using 5000 samples (Hayes, 2018). Facial attractiveness served as the independent variable, perceived enjoyment and perceived threat were parallel mediators, hosts’ self-disclosure was the moderating variable, and booking intention was the dependent variable. The indirect effect through perceived threat was stronger in the low self-disclosure group ($\beta = 0.5678$; 95 % bootstrap confidence interval: LLCI = 0.2208, ULCI = 0.8783) than in the high self-disclosure group ($\beta = 0.1715$, LLCI = 0.0588, ULCI = 0.3075), and a test of the equality of conditional indirect effects showed a significant difference between these groups (index of moderated mediation = -0.3963 , LLCI = -0.6543 , ULCI = -0.1489).

In the same way, a test of the equality of conditional indirect effects (index of moderated mediation = -0.9835 , LLCI = -1.3750 , ULCI = -0.6212) revealed that the indirect effect of hosts’ facial attractiveness on consumers’ booking intentions through perceived enjoyment was stronger in the low self-disclosure group ($\beta = 1.5931$, LLCI = 1.2423, ULCI = 1.9690) than in the high self-disclosure group ($\beta = 0.6096$, LLCI = 0.3521, ULCI = 0.8964). These outcomes support Hypotheses 5a and 5c: hosts’ self-disclosure negatively moderated the mediating effects of perceived enjoyment and perceived threat for the influence of hosts’ facial attractiveness on consumers’ booking intentions. That is, the mediation processes were attenuated among hosts with high self-disclosure. Findings are summarized in Fig. 5.

PROCESS procedure Model 7 was next re-run with willingness to pay as the dependent variable. The indirect effect of hosts’ facial attractiveness on consumers’ willingness to pay via perceived threat was more pronounced in the low self-disclosure group ($\beta = 26.6089$; 95 % bootstrap confidence interval: LLCI = 10.1863, ULCI = 42.9550) than in the high self-disclosure group ($\beta = 8.0384$, LLCI = 2.8189, ULCI = 14.6556). A test of equality of the conditional indirect effects in the two groups revealed a significant difference (index of moderated mediation = -18.5705 , LLCI = -33.6300 , ULCI = -7.6098). Similarly, the indirect effect via perceived enjoyment was stronger in the low self-disclosure group ($\beta = 55.1158$, LLCI = 39.7329, ULCI = 72.4652) than in the high self-disclosure group ($\beta = 21.0899$, LLCI = 11.5731, ULCI = 32.3823), and a test of the equality of conditional indirect effects in the two groups revealed a significant difference (index of moderated mediation = -34.0260 , LLCI = -49.0892 , ULCI = -20.7414). Hypotheses 5b and 5d (the moderated mediating effect of hosts’ self-disclosure on the indirect influences) were supported. Fig. 6 depicts these findings.

Discussion

Study 3 indicated that hosts’ text-based self-disclosure moderated the indirect effect of hosts’ facial attractiveness on consumers’ booking intentions and willingness to pay through perceived enjoyment and perceived threat. In detail, consumers were more inclined to make appearance-based decisions when hosts’ self-description contained less information. By contrast, consumers’ tendency to refer to hosts’ facial attractiveness when making purchase decisions (i.e., booking intentions and willingness to pay) declined as hosts’ self-disclosure rose. In addition to hosts’ reputation, hosts showing high (vs. low) self-disclosure could inform consumers’ purchase decisions to the point that they were less likely to prioritize hosts’ facial attractiveness. This outcome mirrors that of Kite and Whitley Jr (2016), who revealed that self-disclosure plays an important role in reducing prejudice. Similarly, our findings corroborate those of Zhang et al. (2022): consumers can make balanced judgments when presented with more host-related information (i.e., reputation and self-disclosure). We further verified the moderating effects of hosts’ reputation and self-disclosure on consumers’ mental imagery perceptions of facial attractiveness.

Conclusion and implications

Conclusion

Using an experimental design approach, this study tested the existence of the beauty premium in peer-to-peer accommodation based on the stimulus–organism–response theory. The empirical results showed that hosts’ facial attractiveness in their profile photos positively affected consumers’ booking intentions and willingness to pay. This finding partly resolves inconsistencies in

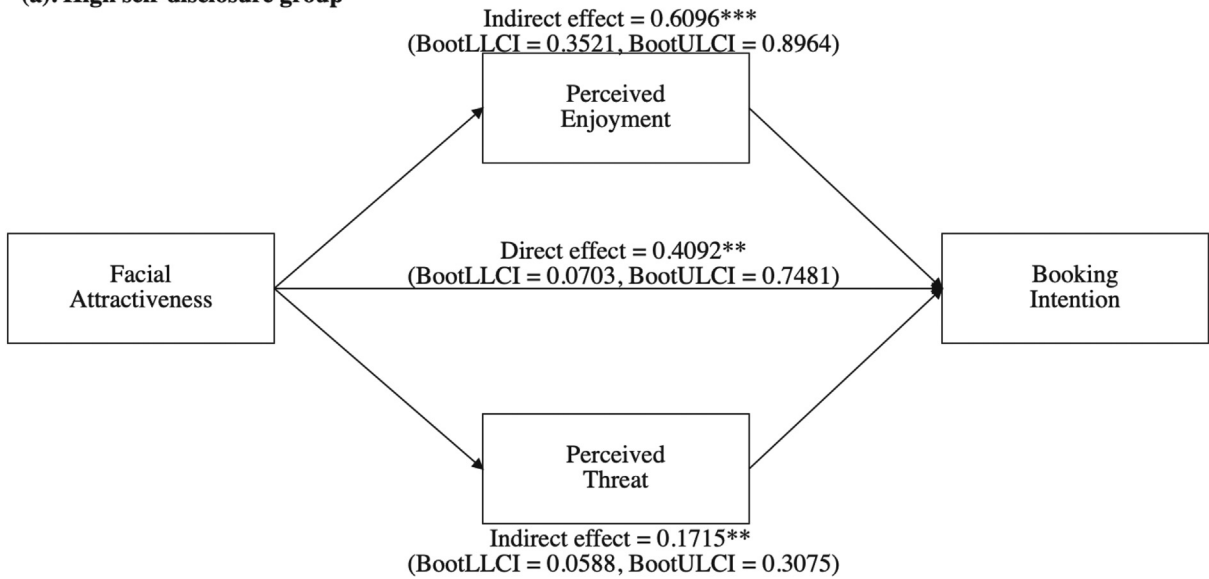
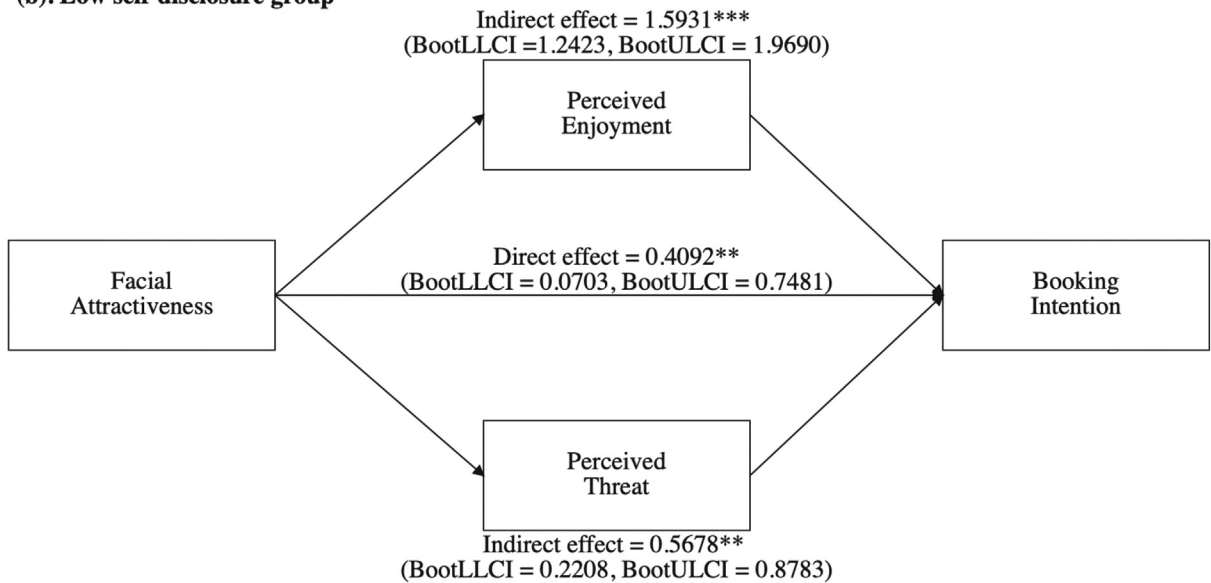
(a). High self-disclosure group**(b). Low self-disclosure group**

Fig. 5. Moderated mediating effect of hosts' self-disclosure with booking intention as the dependent variable.

the literature (Barnes & Kirshner, 2021; Ert et al., 2016; Jaeger et al., 2019). For instance, Ert et al. (2016) noted that Airbnb hosts' attractiveness positively influenced the likelihood of their listing being reserved; meanwhile, the impact of hosts' attractiveness on Airbnb listing prices was insignificant. On the contrary, Jaeger et al. (2019) and Barnes and Kirshner (2021) discovered that hosts' attractiveness exerted a significant positive impact on listing prices. Our study further verified the roles of hosts' facial attractiveness on consumers' booking intentions and willingness to pay. Moreover, different from previous studies demonstrating either a positive U-shaped (Peng et al., 2020) or an inverted U-shaped relationship (Li et al., 2022) between hosts' facial attractiveness and consumer behavior, we found that the impacts of hosts' facial attractiveness were linear.

Also distinct from some studies (Barnes, 2021; Li et al., 2022) discussing the effect of facial attractiveness through the mechanism of perceived trustworthiness, this study unearthed the underlying mechanism of the beauty premium on mental imagery theory. Results highlighted the mediating roles of perceived enjoyment (i.e., a positive emotional state when the behavioral inhibition system is activated) and perceived threat (i.e., a negative emotional state when the behavioral activation system is activated), which shaped consumers' booking intentions and willingness to pay. This study further confirmed two approaches to reducing consumers' reliance on hosts' facial attractiveness: hosts' reputation and self-disclosure.

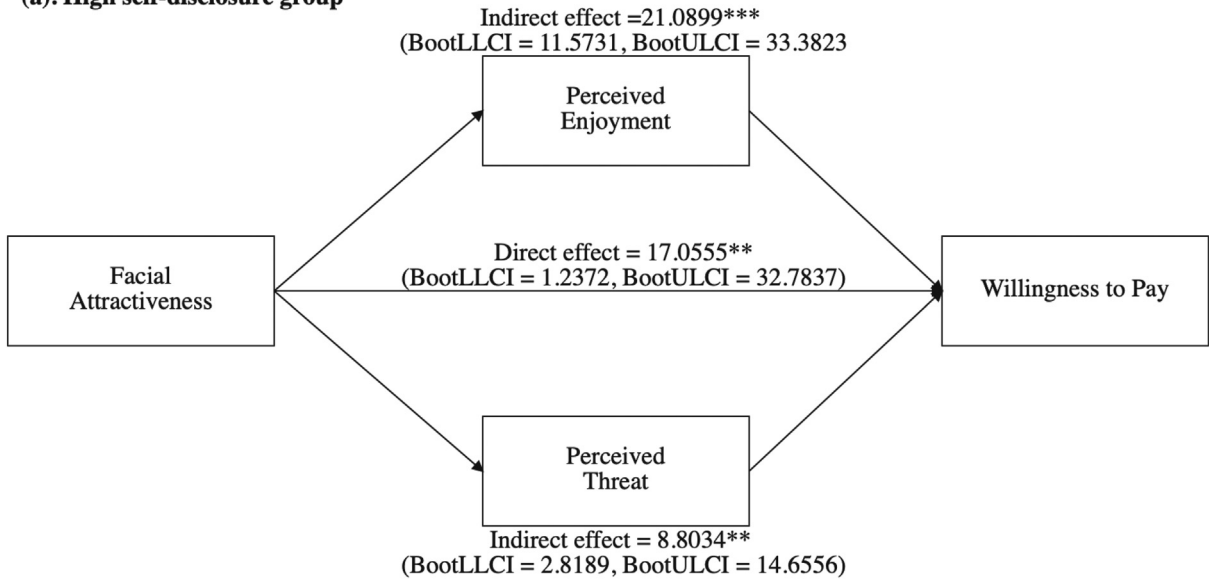
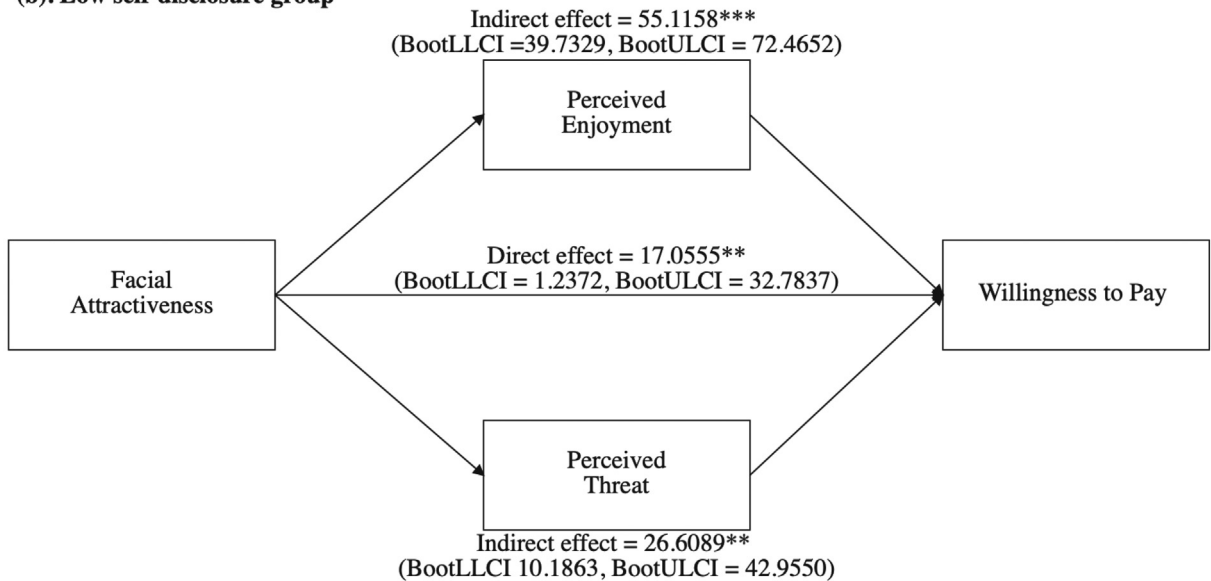
(a). High self-disclosure group**(b). Low self-disclosure group**

Fig. 6. Moderated mediating effect of hosts' self-disclosure with willingness to pay as the dependent variable.

Theoretical implications

This research contributes to the relevant literature in three respects. First, it enriches work on the impact of hosts' facial attractiveness on consumers' decisions about peer-to-peer accommodation platforms by integrating stimulus–organism–response theory and mental imagery theory. Although some scholars have performed preliminary investigations on this topic (Ert et al., 2016; Jaeger et al., 2019; Li et al., 2022), findings have been contradictory and potentially controversial. Based on three studies, the present study not only verified the positive role of hosts' facial attractiveness on consumers' booking intentions (i.e., the beauty premium exists in the Airbnb market) but also extended this line of work by testing the beauty premium in relation to consumers' willingness to pay. Furthermore, our findings shed new light on whether the effects of facial attractiveness are linear on peer-to-peer accommodation platforms.

Second, this research presents an alternative mechanism to elucidate the beauty premium in the peer-to-peer accommodation market. The findings in this study contextualizes the mechanisms underlying the impact of hosts' facial attractiveness on consumers' behavioral responses based on the integration of stimulus–organism–response theory and Goossens's (1994) mental imagery theory. We have therefore answered Peng et al.'s (2020) call for closer scrutiny of this matter. Peng et al. (2020) specifically

suggested that attractive sellers are viewed as more credible because of their perceived competence and sociability, whereas unattractive sellers are seen as more credible thanks to their perceived competence.

In addition, most studies on facial attractiveness have focused on trust, suggesting that host photos featuring high facial attractiveness are more likely to elicit strong perceived trustworthiness. As an initial effort, the current study underlines the impact of visual stimulus-induced consumption vision on consumers' decision-making when encountering hosts of varying facial attractiveness. In particular, individuals may react to incitements (i.e., the high vs. low hosts' facial attractiveness photos) in one of two ways. Perceived enjoyment and perceived threat—as anticipated emotional psychological feelings in response to stimuli—each played mediating roles based on consumers' mental imagery of their stay. This research also extends the application of mental imagery theory. Past work on consumption vision/mental imagery revolved around advertising (Lv et al., 2020), such that the displayed material was designed to stimulate consumers' imagination about product or service consumption. The current study extends this theory to the peer-to-peer accommodation setting.

Third, this research represents an early attempt to test factors that can influence beauty premiums (in terms of consumers' booking intentions and willingness to pay) on peer-to-peer accommodation platforms. This effort comes in response to Barnes's (2021) suggestion to examine more objective and relevant signals of hosts' characteristics from Airbnb profiles; doing so can reduce overvalued and biased effects of hosts' profile images. The present study theorizes hosts' reputation and text-based self-disclosure as moderators in minimizing the effects of hosts' facial attractiveness on consumers' mental imagery perceptions. Findings frame hosts' text-based self-disclosure and reputation as key information sources that can alleviate mental imagery-induced emotional perceptions caused by facial attractiveness in the peer-to-peer accommodation market. Results support the importance of sellers' reputation in consumers' selections on accommodation platforms (Ert et al., 2016) and the positive roles of hosts' self-disclosure on hosts' perceived trustworthiness and consumers' purchase behavior (Ma et al., 2017). Additionally, our results add to the evidence that hosts' reputations and text-based self-disclosure reduce consumers' bias and contribute to rational decisions.

Practical implications

This study offers some recommendations for peer-to-peer platform managers and hosts operating on such platforms. Facial attractiveness was found to be an effective visual stimulus on online peer-to-peer platforms: it evoked consumers' mental imagery and consequently affected booking intentions and willingness to pay. Thus, hosts whose faces are not dominant in profile photos should seek to improve their personal reputations on the platform to compensate. It is also paramount for personal branding on peer-to-peer platforms. Hosts can improve their reputation by responding proactively to consumers, becoming Superhosts, and providing consumers with high-quality services to gain excellent reviews. Hosts should also carefully consider how they write their self-descriptions in terms of depth (i.e., degree of private or personal information) and breadth (i.e., aspects of hosts' personality and everyday life). This text can help prospective consumers learn more about a potential host. In-depth self-disclosure will afford consumers more information about the host, and then consumers can make more rational judgments.

The results of this research can also aid peer-to-peer accommodation platform operators in diminishing consumers' dependence on hosts' appearance when making decisions. First, platforms should provide hosts with more opportunities to showcase themselves. More vivid information can further reduce consumer uncertainty and enhance host–guest communication. For example, Airbnb generally allows hosts to upload only pictures; however, videos would provide a more comprehensive introduction to the host and their property. Second, platforms should pay attention to content quality management on the host side to facilitate a better consumer experience and promote platforms' sustainable development. Notably, due to the linear impact of facial attractiveness, platforms may consider improving the screening of hosts' profile photos to flag unsuitable images that could generate negative consumer reactions. Platforms can also offer detailed onboarding guidance to help hosts set up listing pages and engage in high-quality self-disclosure. Clear information about a platform's reputation status upgrade system should also be provided. Platforms are further advised to regularly monitor listings' content quality along these dimensions and troubleshoot underperforming listings as needed.

Limitations and directions for future research

This research is not free from limitations. First, to investigate causal relationships and associated internal mechanisms, this study employed a scenario-based experimental design for hypothesis testing. Future work could use actual online secondary data and field experiments to further validate the findings. Second, the research sample was limited to China. Consumers' cultural backgrounds may affect judgments of facial attractiveness and its influences. Subsequent studies can bolster the validity of the current results by considering other cultural contexts. Third, only Asian and female hosts were featured in our experimental materials. Follow-up research could explore the potential roles of race and gender in the effect of hosts' facial attractiveness on consumers' responses in the peer-to-peer accommodation context. Lastly, this study only focused on one type of visual information (e.g., hosts' photos); future research can compare the relative importance of different types of visual information (e.g., photos of the accommodation itself) in customer decisions on peer-to-peer platforms.

Data availability

Data will be made available on request.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.annals.2022.103510>.

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