Airbnb: Online targeted advertising, sense of power, and consumer decisions

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A B S T R A C T

Social media such as Facebook are a rich source of consumer information; however, how to effectively use such big data remains a question. To that end, marketers need to develop personalized messages to enhance click-through rates and online purchases. This study explores online advertising strategies for an emerging lodging concept—Airbnb. Airbnb distinguishes itself from traditional hotels by offering guests a "feeling at home" (e.g., belongingness) and an "atypical place to stay" (e.g., uniqueness). In this research, we examine the interaction effect of advertising appeal (belongingness vs. uniqueness) and an individual's sense of power (low vs. high) on click-through intention and purchase intention. The findings suggest that powerless individuals respond more favorably to the belongingness appeal, whereas powerful individuals react more positively to the uniqueness appeal. Furthermore, results from a mediation analysis reveal that self-brand connection is the underlying mechanism that explains these effects. Managerial implications for hospitality marketers are discussed.

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1. Introduction

"Welcome home. Rent unique places to stay from local hosts in 190+ countries."—Airbnb.com

The sharing economy, also known as peer-to-peer economy or collaborative consumption, has gained popularity during the past decade (Bardhi and Eckhardt, 2012; Belk, 2010; Botsman and Rogers, 2010; Gansky, 2010). Airbnb is the most successful peer-to-peer model in the hospitality industry. Founded in 2008, Airbnb is an online community marketplace for renting accommodations from private individuals. As of 2016, Airbnb has obtained over two million listings in more than 34,000 cities and 190 countries, and has served over 60 million guests (Airbnb, 2016). Airbnb has become a popular lodging alternative and it is expected to strike the hotel industry (Zervas et al., 2014). The company is currently valued at $25 billion, exceeding the valuation of large publicly-traded hotel chains including Wyndham Worldwide and Hyatt Hotels (Winkler and MacMillan, 2015). It is predicted that Airbnb will "usurp the InterContinental Hotels Group and Hilton Worldwide as the world's largest hotel chain—without owning a single hotel" (Carr, 2014).

Hospitality scholars have paid increasing attention to the rise of Airbnb, including its economic impact (Guttentag, 2015; Zervas et al., 2014), potential discrimination (Edelman and Luca, 2014), regulation issues (Koopman et al., 2015), and online reputation (Zervas et al., 2015). In spite of this, empirical research examining Airbnb from a marketing perspective is scant. To bridge that gap, the present paper examines two popular advertising strategies associated with Airbnb. We argue that Airbnb distinguishes itself from traditional hotels by offering a "feeling at home" (e.g., belongingness) and an "atypical place to stay" (e.g., uniqueness). Are these two appeals equally effective or do some consumers like one appeal better than the other? To shed light into this question, the current research introduces an important moderating factor—the consumer's sense of power. Power is associated with individual characteristics such as social status, income, health, age, and gender—all of these can be easily retrieved from big data sources like Facebook (Tucker, 2014).

As Airbnb is an internet-based business model (Guttentag, 2015), the present research focuses on online advertising. Specifically, we hypothesize that powerless individuals tend to have a communal orientation (e.g., be more submissive and lack perceived control), and consequently, they will show higher levels of click-through and purchase intention when a belongingness appeal is displayed. Conversely, powerful individuals tend to have an agentic orientation (e.g., be more dominant and have greater perceived

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control), and as a result, they will respond more positively to a uniqueness appeal. We further propose that self-brand connection, defined as "the perceived overlap between the self and the brand" (Escalas, 2004; Escalas and Bettman, 2003), is the psychological mechanism that underlies these effects. Findings of this research contribute to the emerging hospitality literature on Airbnb and have important managerial implications on online advertising and implicit personalization strategies.

2. Background literature

2.1. Targeted advertising and personalization

The hospitality and tourism sector contributes 9% of the $49.5 billion online advertising revenue in the U.S. (Interactive Advertising Bureau, 2015). As consumers increasingly rely on social media when discovering and purchasing hospitality services, online and dynamic advertising is vital to a brand's success. Accordingly, brand managers partner with publishers and social networking sites (e.g., Google, Facebook, Twitter) to reach out to a massive pool of potential customers. Facebook is a rich source of consumer information in the form of demographics, personal interests, connections, past behaviors, and future activities (Tucker, 2014). Using such data and complex targeting algorithms, Facebook is able to display personalized advertisements in the user's news feed to enhance advertising effectiveness (Aguirre et al., 2015). Prior e-marketing research suggests that personalized ad content is more appealing as it aligns with the consumer's interests and preferences (Anand and Shachar, 2009; Ansari and Mela, 2003; Franke et al., 2009; Goldfarb and Tucker, 2011a; Lambrecht and Tucker, 2013; Tucker, 2014). For example, recent research shows that personalized advertisements are twice as effective as their impersonal counterparts (Tucker, 2014). Given the rapid development of big data science and dynamic targeting technology, personalization is predicted to be the future of online advertising (Arthur, 2013; Nesamoney, 2015; Smith, 2014).

While personalized advertising is becoming a popular tool among practitioners (Hargrave, 2011; Hunter et al., 2010), its drawbacks cannot be ignored (Aguirre et al., 2015; Bleier and Eisenbeiss, 2015; Tucker, 2014). There is growing evidence to show that consumers experience feelings of discomfort and intrusiveness when personalized ads are too close to their true preferences (Tucker, 2012; Van Doorn and Hoekstra, 2013; White et al., 2008). For example, Aguirre et al. (2015) found sharp drops in click-through rates when consumers realized that their personal data were tracked and analyzed without their consent. Tucker (2014) suggests that personalized advertisements are effective only when consumers' privacy needs are met. To overcome these weaknesses, we propose a different personalization strategy—targeting the consumer's psychological motivations rather than using their personal information.

2.2. Psychological benefits of Airbnb

Airbnb accommodations provide guests with a feeling of "home", thus creating a sense of belonging (Guttentag, 2015). Airbnb's philosophy is to make guests feel at home and connect with the local people. Accordingly, the host is encouraged to "treat guests like friends or family," "share favorite places with guests," and "teach guests something local and unforgettable" because no one knows the place and the neighborhood better than the host (Airbnb, 2015a). Indeed, the desire for social belonging is a fundamental human need (Baumeister and Leary, 1995). In Maslow's (1968) hierarchy of needs, the need for belongingness arises as soon as survival and safety needs (e.g., food, water, shelter) are satis-

fied, and takes precedence over self-esteem and self-actualization needs. Previous research suggests that many travelers feel lonely and disconnected when being away from home (Cacioppo and Patrick, 2008; Lee and Hyun, 2015). Such feelings have negative consequences on guest experiences as there is plenty of evidence to show that feeling excluded has a pervasive impact on people's psychological well-being (Baumeister et al., 2002, 2005; Eisenberger et al., 2003; Twenge et al., 2002). Rather than staying at a traditional hotel and being served by uniformed employees, guests can experience a sense of belonging when talking with the local Airbnb host or having a cup of tea in a real home kitchen.

Airbnb also adds a flavor of uniqueness to the guest's journey. Airbnb has over two million unique accommodations that reflect the local host's lifestyle, personality, and culture. To attract consumers, Airbnb highlights a wide range of "atypical places to stay" in its marketing communication, such as the artist mirrored house, the seashell house on a Mexican island, and charming castles (Airbnb, 2015b). People have a fundamental need to differentiate themselves from others (Lynn and Snyder, 2002; Snyder and Fromkin, 1980), and Airbnb's idiosyncratic offerings provide guests distinctive lodging experiences that are different from traditional hotel stays. Indeed, as individual uniqueness is highly valued in the American society (Bellah et al., 2007; Kim and Markus, 1999), consumers tend to signal their uniqueness through distinctive consumption choices (Ames and Iyengar, 2005; Berger and Heath, 2007; Chan et al., 2012; Lynn and Harris, 1997; Mead et al., 2011; Wan et al., 2014; Xu et al., 2012). Airbnb provides an opportunity to satisfy the need for uniqueness.

To summarize, the essence of the Airbnb concept is the "belongingness" and "uniqueness" brought to the guest's experience. Recent marketing research suggests that belongingness and uniqueness play important roles in consumer judgments and decision-making processes (Liu and Mattila 2015; Loveland et al., 2010; Maimaranand and Wheeler, 2008; Wan et al., 2014; Zhu and Argo, 2013). For example, Zhu and Argo (2013) suggest that circular-shaped seating arrangements can activate the need for belongingness, and consequently, lead to more favorable responses to family-oriented appeals and majority endorsement. In contrast, they show that angular-shaped seating arrangements can trigger the need for uniqueness, and as a result, lead individuals to react more favorably to self-oriented messages and minority endorsement. Liu and Mattila (2015) reveal that individuals experience heightened need for belongingness when surrounded by out-group customers in an ethnic restaurant, whereas they experience intensified need for uniqueness when surrounded by in-group customers; as a result, customer satisfaction declines when an authentic menu is not offered. Extending this stream of research, we seek to understand the relative effectiveness of highlighting belongingness versus uniqueness in the Airbnb context. Moreover, we aim to examine which of the two appeal types is more effective across consumers with varying levels of sense of power.

2.3. Moderating role of consumers' sense of power

How would power, defined as the "perceived asymmetric control relative to another" (Rucker et al., 2012), influence consumer responses to belongingness versus uniqueness appeals? Research on power suggests that high power fosters an agentic orientation, which is associated with dominant behaviors, increased need for control, and independence; in contrast, low power is linked to a communal orientation reflecting submissive behaviors, lack of control, and dependence on others (Rucker et al., 2012; Wiggins, 1991). Prior research demonstrates that power leads people to be more self-oriented and become less likely to take the perspective of others (Galinsky et al., 2006). Similarly, power increases social distance (Lammers et al., 2012) and powerful people are less compassionate

toward others' suffering (Van Kleef et al., 2008). Power also engenders perceptions of illusory control over outcomes (Fast et al., 2009) and prompts people to take action (Galinsky et al., 2003; Magee et al., 2007).

Recent research suggests that consumers' sense of power plays an important role in various hospitality settings (e.g., Choi and Mattila, 2015, 2016; Wu et al., 2016; Zhang, 2013; Zhang and Hanks, 2015). In the service encounter context, Zhang and Hanks (2015) found that when receiving an unexpected hotel or airline upgrade, individuals with a low sense of power exhibited lower satisfaction and behavioral intention when they were with friends who did not receive an upgrade, as compared with when they were with strangers. Choi and Mattila (2016) show that individuals with a low sense of power are more likely to exhibit approach behaviors when other customers' dress styles are formal rather than informal. Power also influences consumers' online behaviors. Wu et al. (2016) demonstrate that powerless consumers are more likely to post positive reviews when the forum consensus is positive, whereas powerful consumers are more likely to post positive reviews when the overriding consensus is negative. Taken together, these findings provide support for the notion that powerless guests are more sensitive about the group composition and are dependent on others, whereas powerful guests are more independent and strive to differentiate themselves from others.

Building on these findings, we propose that there is an interaction between advertising appeal and sense of power on consumers' responses. Specifically, we expect that powerless individuals will react more positively to a belongingness appeal due to their communal orientation. Conversely, due to their agentic orientation, powerful individuals will respond more positively to a uniqueness appeal than a belongingness appeal, as they feel they want to take action to stand out. We focus on consumers' click-through and purchase intentions, as these are key indicators of targeted advertising effectiveness in the online marketing context (e.g., Aguirre et al., 2015; Bleier and Eisenbeiss, 2015; Chatterjee et al., 2003; Goldfarb and Tucker, 2011; Tucker, 2014; White et al., 2008). Accordingly, we put forth the following hypotheses:

H1. Powerless individuals will show higher levels of *click-through intention* when a belongingness (vs. uniqueness) appeal is displayed; in contrast, powerful individuals will show higher levels of *click-through intention* when a uniqueness (vs. belongingness) appeal is displayed.

H2. Powerless individuals will show higher levels of *purchase intention* when a belongingness (vs. uniqueness) appeal is displayed; in contrast, powerful individuals will show higher levels of *purchase intention* when a uniqueness (vs. belongingness) appeal is displayed.

2.4. Mediating role of self-brand connection

We further propose that self-brand connection is the psychological mechanism underlying the proposed effects. Self-brand connection refers to the extent of perceived overlap between the brand and the self (Escalas, 2004; Escalas and Bettman, 2003). Self-brand connection has three key components (Birdwell, 1968; Dolich, 1969; Gardner and Levy, 1955; Sirgy, 1982). First, consumers process brand messages focusing on brand meaning and brand benefits. Second, consumers have a notion of the self, regarding who they are (actual self) and who they want to be (ideal self). Finally, consumers engage in a matching process to evaluate the extent to which the brand is congruent with their self-concept. Escalas (2004) suggests that a self-brand connection may be formed based on perceived psychological benefits that a brand offers. For example, owning a pair of Google glasses provides a sense of coolness, smartness, and futurism. Individuals who identify themselves

as innovators are more likely to form a self-brand connection with Google glasses than those who like traditional ways of doing things.

Furthermore, the congruence between the brand and the self-concept influences consumer choices and their decision-making processes. Previous research shows that consumers conspicuously display their product choices for identity signaling or impression management purposes (Berger and Heath, 2007; Ferraro et al., 2013; Griskevicius et al., 2010). Therefore, when making brand choices, consumers tend to show higher levels of behavioral intention for brands they are most connected to and brands that best address their psychological needs (Aaker and Lee, 2001; Escalas and Bettman, 2003; Hirsh et al., 2012; Huffman et al., 2000). Based on our previous theorizing, we propose that powerless consumers should feel more connected to and prefer a brand that creates a sense of belonging, whereas powerful consumers should feel more connected to and favor a brand that helps them to be unique. This heightened self-brand connection, in turn, will contribute to high levels of click-through and purchase intention. Hence, we put forth the following hypotheses:

H3. Self-brand connection will mediate the impact of power and appeal on *click-through intention*.

H4. Self-brand connection will mediate the impact of power and appeal on *purchase intention*.

3. Methodology

3.1. Study design and sample

The study employed a 2 (power: low vs. high) × 2 (appeal: belongingness vs. uniqueness) between-subjects design. A total of 139 U.S. adult consumers, recruited via MTurk, participated in the online experiment. MTurk features a diverse nationwide pool of consumers, and it has become a popular data source for consumer experiments (Buhrmester et al., 2011; Paolacci et al., 2010). Compensation for participation was $.50. In terms of demographics, the mean age was 34.3 years, 58.3 percent of the respondents were male, 71.9 percent were Caucasian, 58.3 percent had a four-year college degree, and 54.0 percent had an annual income over $40,000.

3.2. Procedure and stimuli

First, participants were exposed to the power manipulation adapted from previous studies in the consumer behavior literature (Galinsky et al., 2003; Magee et al., 2007; Rucker et al., 2012; Smith and Trope, 2006). As a cover story, they were told that the researcher team was conducting a psychology study to understand human memory. Participants were randomly assigned to the two power conditions (see Appendix B). In the low-power condition, participants were instructed to (1) recall a particular incident in which someone else had power over them and (2) make grammatically correct sentences using words related to lacking power (e.g., submit, comply, obey, yield). In the high-power condition, participants were asked to (1) describe a particular incident in which they had power over another individual or individuals and (2) make grammatically correct sentences using words related to having power (e.g., authority, command, influence, dominate). This power manipulation technique has been successfully used in various disciplines, including marketing (e.g., Dubois et al., 2012; Mourali and Yang, 2013; Rucker et al., 2014), psychology (e.g., Galinsky et al., 2003; Magee et al., 2007; Smith and Trope, 2006), and hospitality (e.g., Wu et al., 2016; Zhang and Hanks, 2015; Choi and Mattila, 2016).

Next, participants were instructed to complete an ostensibly unrelated advertisement study.[1] They were randomly assigned to one of the two appeal conditions. Participants were asked to imagine that they were browsing on Facebook and encountered an Airbnb advertisement in their news feed. The ad was designed to mimic real sponsored posts on Facebook (see Appendix A). The belongingness appeal had the following tagline: "Wherever you go, you feel at home. Have a sense of belonging with Airbnb!" Conversely, the uniqueness appeal had the following tagline: "Wherever you go, your stay is unique. Have an atypical getaway with Airbnb!" Finally, participants were asked to respond to measures capturing their click-through intention, purchase intention, self-brand connection, manipulation checks, and demographics.

3.3. Measures

Click-through intention, adapted from Aguirre et al. (2015), was measured by asking participants how likely they would "click on the advertisement to get further information" on a 7-point scale (unlikely/likely, impossible/possible, and improbable/probable; $\alpha = 0.95$). Purchase intention was assessed by asking participants to indicate the likelihood that they would "make a reservation with Airbnb in the future" on a 7-point scale (unlikely/likely, impossible/possible, and improbable/probable; $\alpha = 0.96$) adapted from Yi (1993). Self-brand connection was measured using a 7-point scale adapted from Escalas and Bettman (2003). The scale contained seven items: "Airbnb brand reflects who I am," "I can identify with Airbnb," "I feel a personal connection to Airbnb," "I can use Airbnb to communicate who I am to other people," "I think Airbnb may help me become the type of person I want to be," "I consider Airbnb to be 'me'," and "Airbnb suits me well" (strongly disagree/strongly agree; $\alpha = 0.96$). In addition, we measured familiarity with Airbnb using three items: "How familiar are you with Airbnb?" "How experienced are you with Airbnb?" and "How knowledgeable are you about Airbnb?" (1 = not at all, 7 = extremely; $\alpha = 0.91$), adapted from Kent and Allen (1994). We also asked participants to indicate their familiarity with Facebook (1 = not at all, 7 = extremely). Familiarity scores for Airbnb and Facebook were included as covariates in the data analyses.

To check the manipulation of power, participants were asked to indicate the extent to which they felt powerful on a scale anchoring at "not at all powerful (1)" and "extremely powerful (7)" (Rucker et al., 2011). To check the manipulation of the appeal type, participants were asked to indicate whether the advertisement emphasized "a sense of belonging (1)" or "a unique stay (7)" on a bipolar scale. Realism of the stimuli was assessed through two questions: "How realistic was the Airbnb ad?" and "How difficult was it for you to imagine seeing this type of Airbnb ad in real life?" ($r = 0.70$, $p < 0.001$).

4. Results

4.1. Manipulation checks

We performed a two-way ANOVA on the power manipulation check. As expected, the results indicated only a main effect of power (F(1, 135) = 110.32, $p < 0.001$), such that participants in the high-power condition (M = 5.00, SD = 1.01) felt more powerful than their counterparts in the low-power condition (M = 3.06, SD = 1.13).
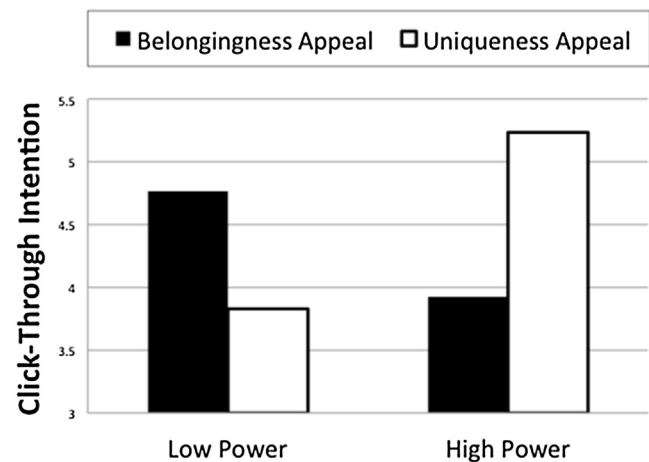

Fig. 1. The effect of power and appeal on click-through intention.

Next, we conducted a two-way ANOVA on the appeal manipulation check. The results revealed only a main effect of appeal (F(1, 135) = 91.83, $p < 0.001$), suggesting a significant difference between the belongingness-appeal condition (M = 6.04, SD = 1.34) and the uniqueness-appeal condition (M = 3.05, SD = 1.15). Finally, the mean rating on stimuli realism was 5.29, indicating that participants in this study perceived the ad stimuli to reflect real-life Airbnb advertisements. In conclusion, our experimental manipulations were effective.

4.2. Click-through intention

To test H1, we performed a two-way ANCOVA on click-through intention. Familiarity scores for Airbnb and Facebook were included as covariates in the model. The results revealed that only the power × appeal interaction was significant (F(1, 133) = 14.49, $p < 0.001$). This interaction is visualized in Fig. 1. Specifically, participants in the low-power condition were more likely to click through the belongingness appeal (M = 4.77, SD = 1.40) as opposed to the uniqueness appeal (M = 3.83, SD = 2.08; F(1, 133) = 4.32, $p < 0.05$). Conversely, participants in the high-power condition were more likely to click through the uniqueness appeal (M = 5.23, SD = 1.57) than the belongingness appeal (M = 3.93, SD = 1.62; F(1, 133) = 11.18, $p < 0.001$). These results are consistent with H1.

4.3. Purchase intention

To test H2, we conducted a two-way ANCOVA on purchase intention. Covariates in the model were familiarity scores for Airbnb and Facebook. Consistent with our predictions, the results indicated only a significant power × appeal interaction (F(1, 133) = 8.99, $p < 0.01$), presented in Fig. 2. Specifically, participants in the low-power condition were more likely to make a reservation with Airbnb when they viewed the belongingness appeal (M = 4.58, SD = 1.56) rather than the uniqueness appeal (M = 3.67, SD = 1.87; F(1, 133) = 4.97, $p < 0.05$). In contrast, participants in the high-power condition were more likely to make a reservation with Airbnb if they viewed the uniqueness appeal (M = 4.75, SD = 1.66) as opposed to the belongingness appeal (M = 4.06, SD = 1.60; F(1, 133) = 4.17, $p < 0.05$). Therefore, H2 is also supported.

4.4. Mediation analyses

To test H3, we ran a moderated mediation model using the bootstrapping approach (Hayes, 2013). In the model, appeal was

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[1] In the informed consent form, we clearly stated that this academic survey was designed to understand consumer judgments and decision-making processes. The participants were asked to imagine themselves in hypothetical scenarios and to view fictitious advertisements.
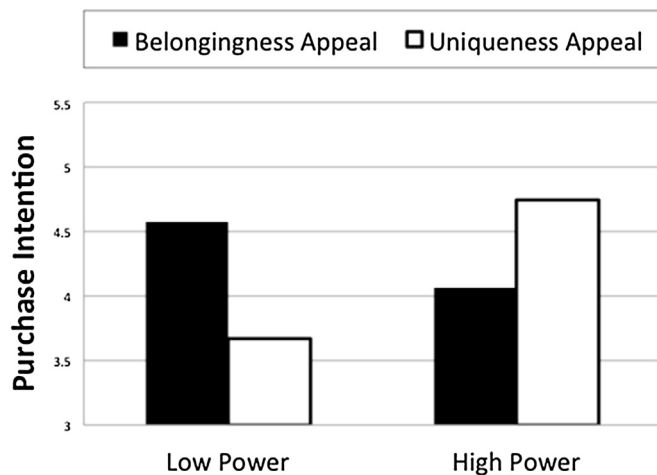
Fig. 2. The effect of power and appeal on purchase intention.

specified as the independent variable, power was the moderator, self-brand connection was the mediator, and click-through intention was the dependent variable (see Fig. 3). Also included in the model as covariates were familiarity scores for Airbnb and Facebook. Bootstrapping results confirmed that self-brand connection mediated the impact of appeal on click-through intention in the low-power condition (indirect effect = −0.57; 95% CI = −1.0847 to −0.1208) as well as in the high-power condition (indirect effect = 0.64; 95% CI = 0.1793 to 1.1666). Hence, H3 is supported.

To test H4, we performed a moderated mediation analysis using purchase intention as the dependent variable, appeal as the independent variable, power as the moderator, and self-brand connection as the mediator (see Fig. 4). Familiarity scores for Airbnb and Facebook were entered as covariates. Bootstrapping results suggested that self-brand connection mediated the impact of appeal on purchase intention in the low-power condition (indirect effect = −0.53; 95% CI = −1.0160 to −0.1383) as well as in the high-power condition (indirect effect = 0.60; 95% CI = 0.1665 to 1.0798). These results are consistent with H4.

5. Discussion

Social media, such as Facebook, are a rich source of consumer information, including demographics, interests, past behaviors, and future activities (Tucker, 2014). How to effectively use such big data remains a question. To that end, marketers need to develop targeted messages catered to an individual consumer (Aguirre et al., 2015; Lambrecht and Tucker, 2013; Tucker, 2014). This study explores online advertising strategies for an emerging lodging concept—Airbnb. Specifically, we examine the interaction effect of advertising appeal (belongingness vs. uniqueness) and sense of power (low vs. high) on consumers' click-through and purchase intentions. The study findings suggest that powerless individuals exhibit higher levels of click-through intention and purchase intention when a belongingness (vs. uniqueness) appeal is displayed, whereas powerful individuals respond more positively to a uniqueness (vs. belongingness) appeal. Furthermore, results from a mediation analysis reveal that self-brand connection is the underlying mechanism that explains these effects. These findings provide important theoretical and practical implications to hospitality marketers.

5.1. Theoretical implications

This research makes several theoretical contributions. First, the hospitality literature offers little understanding regarding how an Airbnb experience is different from traditional hotels, and how to effectively promote this innovative peer-sharing concept. Our work contributes to the hospitality advertising literature by examining the psychological aspects (belongingness and uniqueness) associated with Airbnb. Second, despite the growing interest in need for belongingness and need for uniqueness (Liu and Mattila, 2015; Maimaran and Wheeler, 2008; Zhu and Argo, 2013), the marketing literature offers little guidance on how consumers' sense of power influences their pursuit of belongingness versus uniqueness motivations. The current research addresses this gap by demonstrating that a low sense of power leads consumers to seek hospitality experiences that offer feelings of belonging, whereas a high sense of power motivates consumers to acquire unique experiences. We show that a match between the advertising appeal and consumers'
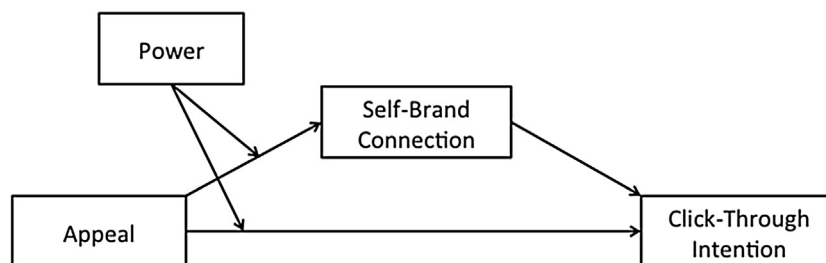

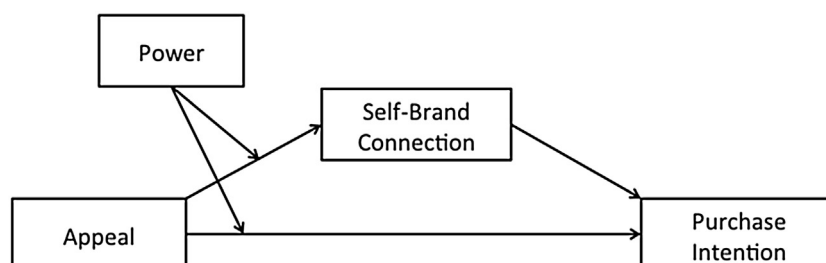**Fig. 3.** A moderated mediation model for click-through intention.

Fig. 4. A moderated mediation model for purchase intention.

sense of power leads to higher levels of click-through and purchase intention in the online advertising context. Hence, our findings extend the consumer behavior and online advertising literature by shedding light into the relationships between belongingness, uniqueness, and power. Furthermore, we uncover the underlying mechanism of these effects by examining the mediating role of self-brand connection. The study findings suggest that, in order to encourage clicks and purchases, hospitality marketers should design advertising messages that address consumers' psychological needs and make them feel connected to the brand. As a result, we also add to the branding literature.

5.2. Managerial implications

Retailers gather a large amount of personal information to create customized advertising messages (Arthur, 2013; Nesamoney, 2015; Smith, 2014). For example, once you have searched the word "Orlando" in your browser, you will start to see ads about hotels and restaurants in Orlando and flights from your city to Orlando. When consumers detect retailers' covert data collection, they feel vulnerable and become reluctant to click on such ads (Aguirre et al., 2015; Tucker, 2014; Goldfarb and Tucker, 2011b). To resolve this issue, we propose a novel personalization strategy that targets consumers' psychological motivations as opposed to their personal information. Findings of this study suggest that online marketers might want to program their ad display algorithms as a function of the consumer's sense of power. Prior research indicates that power is associated with structural factors in one's social environment (Rucker et al., 2012). Consequenlty, the belongingness appeal should be targeted at consumers who are lower in socioeconomic status, occupying subordinate roles, and have low levels of autonomy in their jobs whereas a uniqueness appeal should be targeted at consumers who are high in these factors (Bruner and Goodman, 1947; Dubois et al., 2011; Georgesen and Harris, 1998; Marmot, 2004). Furthermore, online marketers could use zip codes as a proxy of socioeconomic status (Han et al., 2010). For example, the zip code 93640 (Mendota, CA) is one of the most economically disadvantageous areas in the U.S. where over 42 percent of families fall below the poverty line, whereas the zip code 90274 (Palos Verdes Peninsula, CA) is one of the wealthiest areas in the country. When promoting Airbnb, it might be more effective to display the belongingness appeal to residents of Mendota and to show the uniqueness appeal to people living in Palos Verdes Peninsula.

5.3. Limitations and future research

As with any experiment, this study has several limitations. First, we conducted this study in an online experimental setting and only measured participants' behavioral intentions. To overcome this limitation, future research should examine our proposed personalization strategies in the field setting and measure consumers' actual click-through rates and purchasing behaviors. In addition, as pointed out by the reviewer, our sample size could have been larger given the relatively low cost of collecting MTurk data. Thus, future research on MTurk should consider larger samples. Second, the current study did not consider the sequential effects of ad arrays. Previous research suggests that exposure to one advertisement is likely to influence consumer responses to the next advertisement (Labroo and Lee, 2006). Considering that there are numerous posts on social media (e.g., Facebook), marketers should consider the impact of other online content on the focal consumer's sense of power and their subsequent responses to advertisements. For example, Dubois et al. (2012) show that a simple ad message (e.g., "We all feel powerless (powerful) in the morning: Treat yourself to delicious bagels") can activate a sense of low (high) power; consumers who received this message are likely to respond more favorably to a belongingness (uniqueness) appeal. Finally, online advertising relies heavily on big data and information technology, thus marketing and IT professionals should work collaboratively to develop innovative algorithms for the implicit personalization approach. While the current study serves as an initial examination of implicit personalization, future research should explore various psychological targeting strategies in different social media platforms and track their effectiveness in longitudinal studies.

Acknowledgement

Appendix A. Ad stimuli

Belongingness appeal

Uniqueness appeal

Appendix B. Power Manipulation

Low-power condition

Please recall a particular incident in which someone else had power over you. By power, we mean a situation in which someone else had control over your ability to get something you wanted, or was in a position to evaluate you. Describe what happened and how you felt in the box below.

Please use the following words to make a grammatically correct sentence:
1) Servant, submit, letter

2) Complied, janitor, depart

3) Obey, passive, plan

4) Subordinate, yield, position

High-power Condition

Please recall a particular incident in which you had power over another individual or individuals. By power, we mean a situation in which you controlled the ability of another person or persons to get something they wanted, or were in a position to evaluate those individuals. Describe hat happened and how you felt in the box below.

Please use the following words to make a grammatically correct sentence:
1) Authority, controls, letter

2) Captain, depart, command

3) Executive, influenced, plan

4) Dominates, position, privileged

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