

The Effect of Para-Social Interaction in Endorsement Advertising: SEM Studies Based on Consumers' Exposure to Celebrity Symbols

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Abstract

This paper explores how consumers' para-social interaction (PSI) bridges source credibility and consumer brand-related responses when they are exposed to advertising images with celebrity symbols. Two studies were conducted by collecting data through online surveys. The results, based on a structural equation modelling analysis, show that both perceived attractiveness and expertise of celebrities could affect the strength of consumer-celebrity PSI, which in turn allow the consumer to establish a personal connection with the endorsed brand and result in positive brand-related responses. Additionally, when a celebrity possess only one kind of advantage, whether it is perceived physical appearance or perceived expertise in specific field, the audience's willingness to interact with the celebrity would increase as the celebrity's perceived expertise increases. But when a celebrity is outstanding in both perceived physical appearance and perceived expertise, the intensity of the audience's willingness to interact with the celebrity is more susceptible to the change of the perceived appearance of the celebrity. The research proves the indispensable role of the consumer-celebrity PSI for transferring the symbolic meaning of the celebrity endorser to the meaning of the consumer self, inspiring the consumer-celebrity relationship perspective in endorsement advertising research. In addition, the research supplies the source credibility models and brand attitude models.

Keywords: celebrity image, symbolic meaning, para-social interaction, self-brand connection, brand attitude

1. Introduction

Celebrity endorsement refers to a marketing strategy that utilizes a celebrity's public recognition to represent a product by putting it in an advertisement (McCracken, 1989). Advertising enables culture to be transferred from intangible cultural constructs to tangible goods so that consumers can understand the given cultural meaning of goods (McCracken, 1986).

In the process of converting a favorable impression of the celebrity endorser to consumers' approval of the celebrity-endorsed brand, the merits of the celebrity endorser may not directly lead to positive brand attitudes. The factors of how consumers perceive, understand, identify with, and establish cognitive and emotional interactions with celebrity endorsers are still lacking in empirical studies for providing a complete understanding of the mechanism of the endorsement process stimulated by celebrity symbols.

Para-social interaction (PSI) may be a key factor in encouraging the transferring of celebrity images and enabling the endorsement process to resonate among target consumers. Previous studies have shown the influence of PSI in celebrity worship, noting that audience-celebrity PSI is powerful in predicting celebrity worship (Grant, Guthrie & Ball-Rokeach, 1991; Schramm & Hartmann, 2008). However, the literature related to celebrity endorsement provides relatively few and limited insights into the influence of PSI on the bridging of source credibility and consumers' brand-related responses. The integration of the consumer-celebrity relationship into the celebrity-centered paradigm remains largely unexplored.

Hence, the main problem of this paper is to explore the specific role of consumer-celebrity PSI in linking perceived physical attractiveness/ expertise reflected through celebrity images and consumer brand-related responses towards the brand endorsed by the celebrity.

This paper proposes a research model of the endorsement process to achieve dual purposes: highlighting the significance of consumer-celebrity PSI on endorsement effectiveness and discovering new factors that could affect consumer-celebrity interaction. Specifically, the objectives of the study are as follows: (1) to develop a conceptual framework that can provide a better understanding of the relationship between PSI and celebrity endorsement; (2) to delineate the underlying mechanisms through how PSI bridges the source credibility with consumer brand-related responses

by focusing on the mediating role of PSI; and (3) to explore the potential drivers of PSI through integrating PSI into a source credibility model.

2. Theoretical Framework

2.1 Values gained from symbolic meaning of celebrity images

The meaning transfer theory is effective in explaining the transformation of symbolic meaning from celebrity to brand and then to consumer (Belch & Belch, 2013; Bergkvist & Zhou, 2016). A celebrity endorser constructs the symbolic meaning of their image through both objective and subjective elements such as physical appearance, popularity, reputation, professional achievements, and participation in activities for the public good (McCracken, 1989).

The “meaning” here is reflected through the image of the celebrity. The persuasion process in endorsement advertising is the process that transfers the meaning of the celebrity’s image, which includes three stages (Langmeyer & Walker, 1991; McCracken, 1989). In the first stage, a certain cultural context enables the celebrity to establish an image with symbolic meanings reflected in identity, gender, age, social class, personality, lifestyle, and other aspects. In the second stage, the symbolic meaning of the celebrity is transferred to the product when the celebrity and product appear together in advertisements. In the third stage, consumers gain the symbolic meaning and reconstruct their selves and their image of the world through consuming, using, or gifting the product.

Celebrity has become a carrier that entrusts certain cognitions, emotions, and hopes of audiences. Celebrity image has risen from a general entertainment symbol to a symbol that reflects the audience’s ideal life and values (Assael, 1984). The audience’s certain desires, hopes, and dreams can be expressed and realized indirectly through a celebrity’s language, actions, and encounters in performance (Kamins, 1990). Through exposure to the celebrity, the inner beliefs and values of the audience are confirmed by the symbolic images of the celebrity. The fact that the image of a well-known celebrity is difficult to be forgotten by fans is not only because the celebrity has created an indelible screen image or has won the Olympic medals, but also that his/her image itself has become a symbol of the value that the audience desires and pursues.

Reference groups such as celebrities in endorsement (Escalas, 2004), with value-expressive functions (Bearden, Netemeyer & Teel, 1989) of providing comparative points for consumers to evaluate their own attitudes and behaviors, is an important source for brand image (Han, Nunes & Dreze, 2010) and plays a significant role in consumers' self-shaping (Escalas & Bettman, 2005), as supported by the logic of the self-concept theory (Sirgy, 1982). Consumers improve their self-concept through identifying with the celebrity reference group based on the emulation of the behaviors of the celebrity endorser. The endorsement process helps to convey the symbolic meaning that is reflected through images of celebrities so that it can be absorbed by consumers in constructing their selves (Wattanasuwan, 2005). Consumers tend to be moved by the good looks and personal magnetism of the celebrity endorser, with the underlying motivation of being accepted or admired by people in their lives if they themselves are perceived to possess the similarly cherished traits reflected through the celebrity images. This motivation is transformed into a willingness to try the goods that represent the symbolic meaning of the celebrity's image.

2.2 Para-social interaction

Para-social interaction is a concept that originated in the field of interpersonal communication, where it could not be separated from studies related to human motives and affective attachment, to describe a person pretending to be concerned about another person in order to control the interpersonal relationship with this person (Merton, 1946). PSI was defined as an audience's imaginary interaction with media figures (Horton & Wohl, 1956), which is a general social need of the audience in carrying out their daily life through exposure to media (Schramm & Hartmann, 2008) and has been proved to be a powerful predictor of the relationship between an audience and media figures (Maltby, Houran & Mccutcheon, 2003, 2006).

Previous studies (e.g. Cohen, 2009; Giles, 2002; Hartmann & Goldhoorn, 2011; Klimmt, Hartmann & Schramm, 2006) divided PSI into the three dimensions of cognitive, affective, and behavioral interactions. The cognitive interaction of PSI refers to an audience's awareness of information and knowledge in watching media personae and comparing of his ideas with the opinions of media personae. Affective interaction focuses on the audience's emotional attachment and psychological affinity with the media personae. Behavioral interaction refers to when an audience makes

comments on products represented by media personae, seeks information related to media personae, and discusses media personae with others. The three dimensions can theoretically occur separately from each other but are usually combined to be tested in a study.

As consumers' brand attitudes are closely related to consumers' cognitive and emotional satisfactions (Ha & Perks, 2005; Oliver, 2014; White & Yu, 2005), a high degree of PSI, which indicates an audience's strong psychological and emotional connection with a celebrity, may be important in predicting consumers' attitudes towards the brand related to the celebrity. It has been verified that high degrees of PSI will encourage the audience to become more active in collecting information about a celebrity, and frequently watching and purchasing from the program in which the celebrity participated (Mahlke, 2005; Park & Lennon, 2004). Bao and Dong (2010) put forward the three-dimensional characteristics of PSI in the online transaction community environment, that is, the interaction of attitudes, cognition, and behaviors that had a strong and positive correlation with the purchase intention of users as well as their loyalty to the community. Sha and Zhou (2013) pointed out that PSI on social media had a positive impact on the shaping of brand relationships and directly acted on the brand purchase behavior of users. Xiang et al. (2016) found that PSI could affect users' impulse consumption on a social commerce platform. Centeno (2016) found that PSI helped build celebrity culture, which was a component of people's social connections, identities, and decisions in their democratic participation and commercial consumption. Escalas and Bettman (2017) claimed that PSI enlarged the persuasiveness of celebrities in endorsement. Jia, Hung and Zhang (2017) explained how fans' PSI with celebrities motivated them to join commercial activities related to those celebrities and buy products endorsed by those celebrities in an organized way. Gong and Li (2017) found that source credibility—including trustworthiness and expertise, and the matching between celebrity and brand—mediated the relationship between PSI and consumers' attitudes towards advertising and brands. Chung and Cho (2017) observed in their studies that para-social relationships could improve consumers' perceived credibility of the celebrity-endorsed brand via enhancing consumers' perceived trustworthiness of the endorser. In all these studies, PSI influenced persuasion with positive effects.

Although the celebrity-endorsement process is usually a one-way persuasive process influencing consumers through information reflected on the image and attributes of a celebrity, consumers are not passive receivers in the process that are unable to affect the fluent transformation of the information. The role that the consumer-celebrity relationship plays in the endorsement process still needs to be clarified.

2.3 Perceived source attractiveness/source expertise

Source credibility can be reflected through various aspects that include the attractiveness, expertise, trustworthiness, qualification, sociability, and some other qualities of a celebrity perceived by the audience. These perceived traits are the standard-bearers when advertisers select endorsers for their brands and products (Giffin, 1967).

Perceived physical attraction focuses on the good appearance and body shape of an individual (McCroskey & McCain, 1974; Ohanian, 1990). The positive effect of perceived source attractiveness on consumers' good attitudes towards advertisements and brands is found in quite a lot of research into advertising since the 1970s (e.g., Amos, Holmes & Stratton, 2008; Kahle & Homer, 1985; Till & Busler, 2000; Till, Stanley & Priluck, 2008; Tripp, Jensen & Carlson, 1994). It was proved that a perceived attractive communicator could more easily change attitudes and even beliefs of information receivers. Advertisers utilized celebrity endorsers who were perceived attractive either in appearance or character to bring sensual stimuli to consumers, creating an atmosphere that indicated to consumers that they would gain the similarly perceived traits if they purchased the products endorsed or used by the celebrities.

Perceived expertise is another dimension of source credibility (Applbaum & Anatol, 1972; Ohanian, 1990), which has a positive effect on attitude change in persuasive communication (Belch & Belch, 1999; Maddux & Rogers, 1980; Buhr, Simpson & Pryor, 1987). The dominant theoretical explanations of perceived source expertise were traced back to the point made by Hovland, Janis and Kelley (1953) that celebrities were symbols of expertise on their brands, providing consumers with confidence which led to consumers' acceptance of the brands and then affected consumers' purchase motivations. Ohanian (1991) found that perceived expertise

was the most important factor among the several dimensions of source credibility in influencing consumers' purchase intention.

In terms of the influence of source credibility on the consumer-endorser relationship, perceived source attractiveness has been claimed as an important factor in affecting audience-celebrity PSI in previous studies (e.g., Conway & Rubin, 1991; Hartmann & Goldhoorn, 2011; Schiappa, Allen & Gregg, 2007). However, perceived source expertise, another indispensable dimension of source credibility, has not yet had its effect on audience-celebrity PSI explored. Although the effect of perceived source expertise on the audience's PSI with a media figure has yet to be tested directly in previous studies, some works have explored the impact of professional skills or knowledge on the audience's perception of PSI with media personae. It has been suggested that the audience tend to have PSI with media figures with perceived capacities for accomplishing tasks and achieving goals (Baliantine & Martin, 2005; Wheelless & Reichel, 1990; Turner, 1993). People preferred to cooperate with a person they believe has a serious work ethic and a qualified ability to get the job done, as the professional attitude and capacity of an individual can provide confidence and a sense of dependence for other partners in getting things done (Duran & Kelly, 1988). Turner (1993) pointed out that in the construction of PSI between an audience and television actors—compared with the perceived attractiveness relative to the appearance of actors—the audience's perception of the actor's ability in collaborating to accomplish a task was more important. Baliantine and Martin (2005) argued that the capacity of media figures in dealing with tasks has a more significant influence on function-oriented audiences than physical attractiveness.

2.4 Self-brand connection

Self-brand Connection (SBC) refers to the extent to which the consumer uses a certain brand to build, strengthen, and express himself/herself (Batra, Ahuvia & Bagozzi, 2012; Chernev et al., 2011), which is formed based on the congruence between the perceived self-image of an individual and the image of a brand (Escalas & Bettman, 2003, 2005).

SBC has been proved to have positive effects on brand attitude and purchase intention (Escalas & Bettman, 2005; Cheng, White & Chaplin, 2012; Hwang &

Kandampully, 2012). Brands also have personalities similar to humans (Aaker, 1997), which reflect the feelings of a person on the brand. When personality characteristics are consistent between brands and consumers, consumers have brand association, which produces the thought that this is a brand similar to me (Govers & Schoormans, 2005). Once consumers find that their own personality characteristics are similar to brand traits, which means that what they already believed is confirmed, they get a sense of security and stability (Swann, Stein-Seroussi & Giesler, 1992) and are eager to purchase the brand to get the right self-perception and reduce their uncertainty (Litter & Melanthiou, 2006).

In terms of the relationship between PSI and SBC—given that the function of reducing uncertainty in audiences (consumers) can both be provided by PSI (Rubin & Rubin, 2001) and SBC (Litter & Melanthiou, 2006) alongside celebrities being regarded as a reference group aiding the construction of the self (Escalas, 2005; Kamins, 1990)—a positive relationship is expected between PSI and SBC. The significant correlations between source credibility and SBC (Dwivedi, Johnson & McDonald, 2016; Razmus, Jaroszyńska & Pałęga, 2016), and between PSI and SBC (Escalas & Bettman, 2017), can be supported respectively. As endorsement is a dynamic and coherent process, however, SBC needs to be put into a complete framework to prove its specific role.

2.5 Research hypotheses

According the literature review above, source credibility is powerful in predicting consumers' brand-related responses (including self-brand connection and brand attitude) and might be the driver for consumers' sense of intimacy, namely PSI, with the celebrity endorser. Meanwhile, consumer-celebrity PSI might be powerful in predicting consumers' brand-related responses, including consumer SBC and consumer-brand attitude. Hence, the hypotheses of this paper are proposed as follows, and the conceptual model to be tested is designed as Figure 1.

H1: Source credibility, namely attractiveness (H1a) and expertise (H1b) of celebrity, enhances consumer's brand attitude.

H2: Source credibility, namely attractiveness (H2a) and expertise (H2b) of celebrity, enhances consumer-celebrity PSI.

H3: Source credibility, namely attractiveness (H5a) and expertise (H5b) of

celebrity, enhances consumer's SBC.

H4: Consumer-celebrity PSI enhances consumer's brand-related responses, namely SBC (H4a) and brand attitude (H4b).

H5: Consumer-celebrity PSI mediates the relationship between source credibility and consumer's brand-related responses.

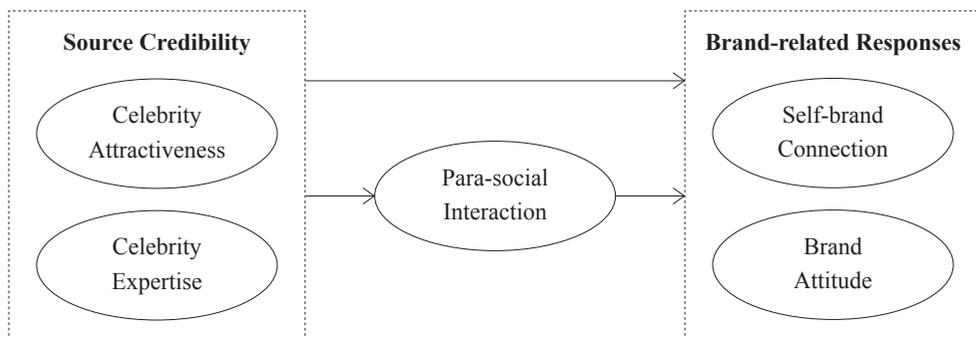
H5a: Celebrity attractiveness firstly affects consumer-celebrity PSI before affecting consumer's SBC.

H5b: Celebrity attractiveness firstly affects consumer-celebrity PSI before affecting consumer's brand attitude.

H5c: Celebrity expertise firstly affects consumer-celebrity PSI before affecting consumer's SBC.

H5d: Celebrity expertise firstly affects consumer-celebrity PSI before affecting consumer's brand attitude.

Figure 1. Conceptual framework of celebrity endorsement based on PSI



3. Research Design

Two studies are conducted in the research. For entertainment celebrities and sports celebrities, the two kinds of celebrities which usually appear in advertising endorsements, perceptions of their attractiveness and expertise may vary in degree. For sports celebrities, there was a relatively objective standard based on their records in contests for evaluating their expertise (Hung, Chan & Tse, 2011), but for entertainment celebrities, it was difficult to find a common standard to judge their professional performances (King, 2010). The majority of entertainment celebrities

had an obvious physical attractiveness to a wide audience, but some may not show advantaged skills in his/her specific field. Most sports celebrities have outstanding achievements and have won medals representing professionalism, but some may have no advantages in perceived physical appearance or personality.

With the purpose of testing whether the proposed hypotheses can be verified in terms of the celebrities with different degrees of perceived attractiveness and expertise, this study plans to collect data on three celebrities. One is the celebrity who is perceived to have both the characteristics of attractiveness and expertise; and the other two are celebrities who are perceived to have obvious advantages separately in attractiveness and expertise.

3.1 Celebrity selection pretest

The pretest for Study 1 aimed to select a celebrity who satisfied both the attractiveness and expertise dimensions of source credibility. We began with the top 30 celebrities listed in the *2017 Chinese Celebrity Income Rank* (Jiemian, 2017). The income ranking allowed us to include celebrities highly involved in endorsement, as endorsement often makes up a significant part of a celebrity's income. All but one (athlete) of the celebrities on the list worked in the entertainment industry. We sent the list to 40 respondents (20 males and 20 females, including young people between 18-34, middle-aged people between 35-49, and elderly people above 50) and asked them to select one celebrity among the 30 perceived to be both attractive and an expert. The respondents worked independently. The results show that Liu Tao (LT) had the highest votes (11 votes), followed by Jacky Cheung (9 votes). The other votes were quite diverse. Thus, LT, who had the seventh highest income according to the list, was selected for Study 1.

The pretest for Study 2 aimed to choose two celebrities who were separately advanced in perceived attractiveness and expertise. To facilitate the comparison of attractiveness and professionalism between celebrities of the same gender, we chose female celebrities in Study 2. The respondents were provided with five female celebrities, Fan Bingbing, Yang Mi, and Yang Ying, who were the top three actresses in the *2017 Chinese Celebrity Income Rank* (Jiemian, 2017), Zhu Ting, who was ranked the most influential female athlete in China (*People Net*, 2018), and Li Na, who was the highest-paid female athlete in China (*Guanchazhe*, 2014). We

provided six questions (I perceive the celebrity is beautiful / charming / attractive / having expertise / experienced / skilled) related to attractiveness and expertise to 40 respondents (19 males and 21 females, including young people between 18-34, middle-aged people between 35-49, and elderly people above 50). Participants were asked to rate the five celebrities for each of the six questions on a scale of one to five. The results show that Fan Bingbing (FB) was considered the most attractive, but wasn't considered to have very much expertise (average 4.00 in attractiveness and 2.86 in expertise) and Li Na (LN) was considered to have the most expertise but wasn't ranked as very attractive (average 4.96 in expertise and 2.80 in attractiveness). Thus, FB and LN, who had the highest income among entertainment celebrities and female sports celebrities respectively, were selected for Study 2.

3.2 Product category selection pretest

The aim of this pretest was to select a product that carried both utilitarian and symbolic values. Utilitarian value (i.e., economic, rational, functional, and physical values) is an important goal for consumers in selecting products (Lai, 1995), and is the basic aspect to be taken into consideration when testing product involvement. Meanwhile, as this research tried to test consumers' SBC, the connection between consumers and the product should not be ignored, as the signal meaning of the product may have influence on consumers' involvement with the product and then affect consumers' connection with the brand. Thus, the sign-value (i.e., self-concept related value, social value, or impression management values) of product (Sheth, 1974) is also included in this study.

Fifty respondents (29 females and 21 males, including young people between 18 and 34, middle-aged people between 35 and 49, and elderly people above 50) joined the pretest. They were given a list of four products (mobile phone, bottled mineral water, facial cleanser, and facecloth). Using a sentence completion task adapted from Mittal and Lee (1989), the respondents were instructed to select one (or more) products from the list to complete the sentences, thus indicating the respective products' utilitarian and symbolic values. Multiple responses were allowed. The results in Table 1 show that bottled mineral water had the highest utilitarian (133 out of 150 possible mentions) and symbolic (97 out of 150 possible mentions) values, followed by mobile phones (utilitarian: 127; symbolic: 81). Thus, bottled mineral

water was selected as the stimulus.

Whistler was a brand of bottled mineral water produced in Canada that was not available in China at the time of the study. Using a real brand provided an externally valid context, but its unavailability in the Chinese market minimized prior consumer-brand association. The stimulus of the study would feature the selected three celebrities separately holding a bottle of *Whistler* in three ad format images.

Table 1. Respondents' choice in terms of utilitarian & symbolic value of product

Questions		Respondent's selection							
		Mobile phone		Bottled mineral water		Facial cleanser		Facecloth	
		%	Raw No.	%	Raw No.	%	Raw No.	%	Raw No.
Product utilitarian value	_____ is important to me.	86%	43	86%	43	60%	30	70%	35
	_____ is a useful thing.	88%	44	92%	46	66%	33	72%	36
	_____ makes daily life easier.	80%	40	88%	44	64%	32	68%	34
Product symbolic value	Using _____ helps me express my personality.	72%	36	60%	30	50%	25	42%	21
	I like the way I see myself when I am using _____.	26%	13	68%	34	46%	23	38%	19
	Knowing whether or not someone uses _____ tells a lot about that person.	64%	32	66%	33	54%	27	38%	19

Note. % refers to the percentage of respondents who chose the product among the 50 people

Raw No. refers to the real number of respondents who chose the product



Image 1



Image 2



Image 3

3.3 Measures

The measures used in this study were adapted from established scales. We used Ohanian's (1990) measures to assess Celebrity Attractiveness and Celebrity Expertise. PSI was adapted from Rubin, Perse and Powell (1985) and SBC was adapted from Escalas (2004). Brand attitude was adapted from two previous measures: Grier and Deshpandé (2001) and Torres, Sierra and Heiser (2007). The measures were translated into Chinese and then back-translated into English to ensure construct equivalence. Responses were made on 5-point Likert scales (5 = strongly agree, 1 = strongly disagree). Details of the measures can be found in Table 2 (which takes Liu Tao as an example).

Table 2. Measurement items and reliability & validity assessment based on LT sample

	<u>SFL</u>
<i>Celebrity Attractiveness:</i> CR=0.784, AVE=0.425, Cronbach's α =0.773	
1. I think LT is attractive	0.700
2. I think LT is good looking	0.651
3. I think LT is classy	0.701
4. I think LT is elegant	0.698
5. I think LT is sexy	0.483
<i>Celebrity Expertise:</i> CR=0.778, AVE=0.414, Cronbach's α =0.768	
1. I think LT is an expert	0.656

2. I think LT is experienced	0.664
3. I think LT is knowledgeable	0.551
4. I think LT is qualified	0.660
5. I think LT is skilled	0.675
<i>Para-social Interaction:</i> CR=0.870, AVE=0.404, Cronbach's α =0.895	
1. I like to watch LT on media	0.588
2. If LT appeared on a (different) television program, I would watch that program	0.589
3. When I watch the television series played by LT, I would put myself into the role or plot	0.656
4. When LT joins an interview, she seems to understand what I want to know	0.696
5. When LT shows me how she feels about something, it helps me make up my own mind about the issue	0.632
6. I sometimes compare what LT has said on media with my own ideas	0.612
7. LT makes me feel comfortable, as if I am with friends	0.603
8. If there is no news about LT on the media for a while, I will miss her	0.707
9. I would like to meet LT in person	0.546
10. If there are information, comments, and stories about LT on media, I will read them	0.702
11. I sometimes make comments on programs that LT participates in	0.598
12. If I hear words of other athletes different from LT, I will be not satisfied	0.669
13. I feel sorry for LT when she makes a mistake	0.599
<i>Self-brand Connection:</i> CR=0.877, AVE=0.542, Cronbach's α =0.875	
1. Whistler seems to suit me well	0.719
2. Whistler seems like a brand I can see myself drinking	0.712
3. Whistler could be a brand representing me	0.698
4. Whistler seems to convey some of my personal information	0.765
5. Whistler seems to reflect the way that I want to present myself to others	0.753
6. I think Whistler could help me become the type of person I want to be	0.768
<i>Brand Attitude:</i> CR=0.836, AVE=0.459, Cronbach's α =0.834	
1. I think Whistler is high quality.	0.652
2. I think Whistler is favorable.	0.647
3. I like Whistler.	0.688
4. I would like to try Whistler	0.660
5. I look forward to Whistler being available in China	0.732
6. I will recommend others to try Whistler	0.682

N=510

3.4 Respondents and procedures

The online questionnaire was placed on WJX, the largest non-proprietary Chinese online survey platform. To avoid repeated responses, any one IP address can only access the questionnaire one time. The WJX owns more than 2.6 million sample resources. The diversity of its sample is reflected in gender composition (48% females and 52% males), age distribution (21.04% for people below 20 years old, 25.03% for people between 21 and 25 years old, 29.34% for people between 26 and 30 years old,

16.26% for people between 31 and 40 years old, and 8.33% for people above 40 years old), identity structure (26.30% school students, 39.20% ordinary workers, 10.20% enterprise managers, 9.70% researchers, 4.20% civil servants, 3.10% professional and technical personnel, 1.80% freelancers, 5.50% others), and regional distribution (33.14% for people in northeastern cities of China, 51.71% for people in southeastern cities of China, 15.06 for people in western cities of China, 0.06% for people in Hong Kong and Macao, and 0.03% for people in other Chinese regions) (Official site of WJX, retrieved from <https://www.wjx.cn/sample/service.aspx>). The diversity of sample resources on WJX is guaranteed.

In the first question, a jump option was set. Respondents randomly chose one of the three options “A”, “B” and “C” and jumped to the questions related to only one celebrity among FB, LN, and LT. For example, option A was set to be linked with questions only related to FB, and option B was set to be linked with questions only related to LN. Respondents could not see the questions related to the other two celebrities after they made choice in the first question. In order to counterweigh the amount of samples for each of the three celebrity images, the maximum size for respondents to choose the same image was set to 600. Each respondent received 5 RMB through the WJX system as incentive for participation.

During the data collection proper, we included several screening questions to eliminate respondents (1) who did not have the habit of drinking bottled mineral water, and (2) who had heard of the *Whistler* brand of mineral water. During data cleaning, respondents who gave the same responses throughout the questionnaire (e.g., all “3’s”) were deleted, as recommended by Meade and Craig (2012).

There were separately final samples of 510 respondents for Liu Tao, 425 respondents for Fan Bingbing, and 430 respondents for Li Na obtained. Among the 510 respondents of Liu Tao, there were 267 (52.4%, N=510) females and 243 (47.6%, N=510) males; those with an age of between 18 and 30 occupied more than half (67.6%, N=510) of the sample population; two thirds (66.7%, N=510) of the respondents had obtained a university degree; and the respondents were relatively evenly distributed in the first-tier (20.4%), new first-tier (28.2%), second-tier (25.6%), and third-tier (21.7%) cities of mainland China. The demographic distribution of the respondents of the other two celebrities (Fan Bingbing and Li Na) showed a trend consistent with that of Liu Tao’s respondents. Among the 425 respondents of Fan

Bingbing, there were 238 (56%, N=425) females and 187 (44%, N=425) males; those with an age of between 18 and 30 occupied more than half (54.6%, N=425) of the sample population; and nearly two thirds (64.5%, N=425) of the respondents had obtained a university degree. Among the 430 respondents of Li Na, there were 225 (52.3%, N=430) females and 205 (47.7%, N=425) males, those with an age of between 18 and 30 occupied more than half (54.2%, N=430) of the sample population; and nearly two thirds (65.3%, N=430) of the respondents had obtained a university degree. Generally, this younger, well-educated, widely distributed respondent pool is consistent with the segment of bottled mineral water users in China, and consists of upscale consumers looking for healthier consumption choices (Askei, 2018).

4. Study 1

In Study 1, we first tested the proposed model based on the celebrity LT who satisfied both the attractiveness and expertise dimensions of source credibility.

4.1 Descriptive statistics

The means, standard deviations, inter-construct correlations, and Cronbach alphas scores of all continuous variables are presented in Table 3. The construct means range from 3.50 to 4.17 (out of 5.0). Corresponding standard deviations range from 0.594 to 0.888. Inter-correlations are positive and significant for all pairs of constructs ($p < .01$). All Cronbach alphas are greater than the commonly accepted level of 0.70 (Petrick & Backman, 2002).

Table 3. Descriptive statistics based on LT sample

Variable	Mean	S.D.	AT	EX	PSI	SBC	BA
Attractiveness (AT)	4.02	.638	<i>.773</i>				
Expertise (EX)	4.17	.594	.675**	<i>.768</i>			
Parasocial Interaction (PSI)	3.74	.709	.600**	.512**	<i>.895</i>		
Self-brand Connection (SBC)	3.50	.888	.321**	.239**	.604**	<i>.875</i>	
Brand Attitude (BA)	3.97	.657	.435**	.464**	.552**	.660**	<i>.834</i>

Note. N=510. Cronbach alphas value is given in italics along the diagonal.

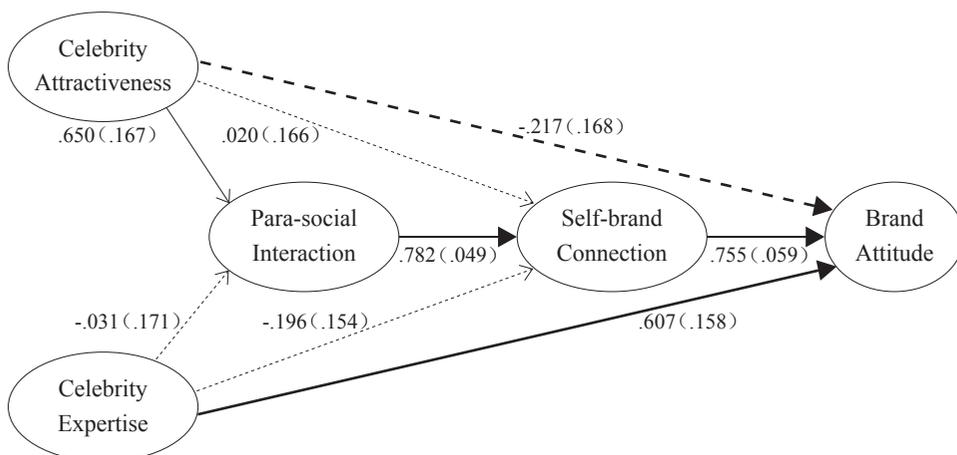
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

4.2 Hypothesized path model test (H1-H4)

The proposed model was analyzed using SEM (Mplus version 7). The resulting model had a good fit: Chi-square value $X^2(454) = 1058.621$, Root Mean Square Error of Approximation (RMSEA) = 0.051, Comparative Fit Index (CFI) = 0.915, and Root Mean Square Residual (SRMR) = 0.051. The model produced in this study reaches good data-model fits suggested by Bagozzi and Yi (2012), and the model was examined as initially specified without any changes.

According to the results shown in Figure 2, contrary to H1a, Celebrity Attractiveness did not exert significant effects on Brand Attitude ($\beta = -.217, p = .196$) but Celebrity Expertise did ($\beta = .607, p < .001$), in support of H1b. Meanwhile, Celebrity Attractiveness exerted significant effects on PSI ($\beta = .650, p < .001$), in support of H2a, but Celebrity Expertise did not ($\beta = -.031, p = .856 > .05$), contrary to H2b. The results also show that Celebrity Attractiveness ($\beta = .020, p = .906 > .05$) and Celebrity Expertise ($\beta = -.196, p = .205 > .05$) could not directly affect consumers' SBC, thus H3 was not supported. In addition, PSI exerted significant effects on consumers' SBC ($\beta = .782, p < .001$) but not on Brand Attitude ($\beta = -.100, p = .198$), thus, H4a was supported but H4b was not.

Figure 2. Statistical model of endorsement path based on LT sample



Note. N=510. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

All the solid line paths are statistically significant, while the dotted line paths are not significant.

Model fit: Chi-square value $X^2(454) = 1058.621$, RMSEA = 0.051, CFI = 0.915, TLI = 0.907, SRMR = 0.051

Generally, the results indicated that perceived source attractiveness enhanced consumer-celebrity PSI, and PSI enhanced consumers' SBC with the brand endorsed by the celebrity.

4.3 Test of mediation effect of PSI (H5)

The study next tested whether the mediation effects of consumer-celebrity PSI existed in bridging the path from source credibility to consumer brand-related responses. According to the above test of the path model, as there were no significant relationships between perceived celebrity expertise and PSI as well as between PSI and brand attitude base on the data of LT sample, the mediation test here focuses on the mediating effect of PSI on the relationship between celebrity attractiveness and consumer SBC.

Mplus can help get the confidence interval of Bootstrap through Bootstrap syntax and Model Indirect and Cinterval instruction (Muthén & Muthén, 2010). Table 4 shows the output file with detailed information of the estimated mediation effects, as well as the BC bootstrap confidence intervals. It is presented that the 95% BC confidence interval for the mediation effect from attractiveness to SBC via PSI does not contain zero (lower 2.5% limit = 0.128; upper 2.5% limit = 0.888). Meanwhile, the 95% BC confidence interval for the mediation effect from attractiveness to brand attitude via PSI and SBC does not contain zero (lower 2.5% limit = 0.089; upper 2.5% limit = 0.678).

Table 4. Output file of confidence intervals of standardized mediation effects based on LT sample

Confidence Intervals of Standardized Total, Total Indirect, Specific Indirect, and Direct Effects							
	<i>L</i> .5%	<i>L</i> 2.5%	<i>L</i> 5%	Estimate	<i>U</i> 5%	<i>U</i> 2.5%	<i>U</i> .5%
Effects from AT to SBC via PSI							
Sum of indirect	0.009	0.128	0.189	0.508	0.827	0.888	1.007
Specific indirect							
SBC							
PSI							
AT	0.009	0.128	0.189	0.508	0.827	0.888	1.007
Effects from PSI to BA via SBC							
Sum of indirect	0.329	0.391	0.423	0.590	0.757	0.789	0.851
Specific indirect							
BA							
SBC							
PSI	0.329	0.391	0.423	0.590	0.757	0.789	0.851
Effects from AT to BA via SBC PSI							
Sum of indirect	-0.003	0.089	0.136	0.384	0.631	0.678	0.771
Specific indirect							
BA							
SBC							
PSI							
AT	-0.003	0.089	0.136	0.384	0.631	0.678	0.771

Note. AT=Attractiveness, SBC=Self-brand Connection, PSI=Para-social Interaction, L=Lower, U=Upper

The above results show that the mediation effect from celebrity attractiveness to consumer SBC via PSI is significantly different from zero, and the mediation effect from celebrity attractiveness to consumer brand attitude via PSI and SBC is significantly different from zero. Hence, H5a is supported in that celebrity attractiveness firstly affects consumer-celebrity PSI before affecting consumers' SBC. Meanwhile, H5b is partially supported in that celebrity attractiveness firstly affects consumer-celebrity PSI as well as consumers' SBC before affecting consumers' brand attitude.

Generally, the mediation test indicated that there is a path from source attractiveness to consumer-celebrity PSI, and then to consumers' SBC with the brand endorsed by the celebrity, and then finally to good brand attitude.

5. Study 2

According to Study 1, the expertise of Liu Tao, who has satisfied both characteristics of attractiveness and expertise, has no significant effect on consumers' PSI with her. In order to further explore the relationship between source credibility, especially celebrity expertise and consumer-celebrity PSI, as well as to validate the proposed model repeatedly, we then tested the model through utilizing the data of the other two celebrities who separately have apparent advantages in attractiveness and expertise.

5.1 Differences in terms of source credibility levels

One-way ANOVA was used to check whether there are significant differences between the samples of Fan Bingbing and Li Na in terms of their degrees of attractiveness, expertise, consumer-celebrity PSI, consumer self-brand connection, and brand attitude.

Table 5. Test of variables differences between samples of FB and LN

Variable	M(FB)	M(LN)	L (Sig.)	W (Sig.)	B (Sig.)	F(Sig.)
Variable	4.01	3.34	.161	.000	.000	.000
Expertise	3.31	4.05	.002	.000	.000	.000
PSI	3.62	3.75	.326	.026	.026	.026
Self-brand Connection	3.62	3.79	.069	.004	.004	.004
Brand Attitude	3.63	3.74	.088	.057	.057	.057

Note. L = Levene Statistic, W=Welch, B=Brown-Forsythe, F=One-way ANOVA

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

According to the results shown in Table 5, there were significant differences in all the variables except for consumer brand attitude between FB and LN. FB had significantly higher level of attractiveness than LN [$F(1, 853) = 95.160, p < .001$], while LN was perceived to be significantly more professional than FB [$F(1, 853) = 147.004, p < .001$].

In addition, respondents had significantly stronger PSI [$F(1, 853) = 4.986, p = 0.026 < .05$] as well as self-brand connection [$F(1, 853) = 8.326, p = 0.004 < .005$] with LN than with FB, but respondents had no significant difference in terms of their

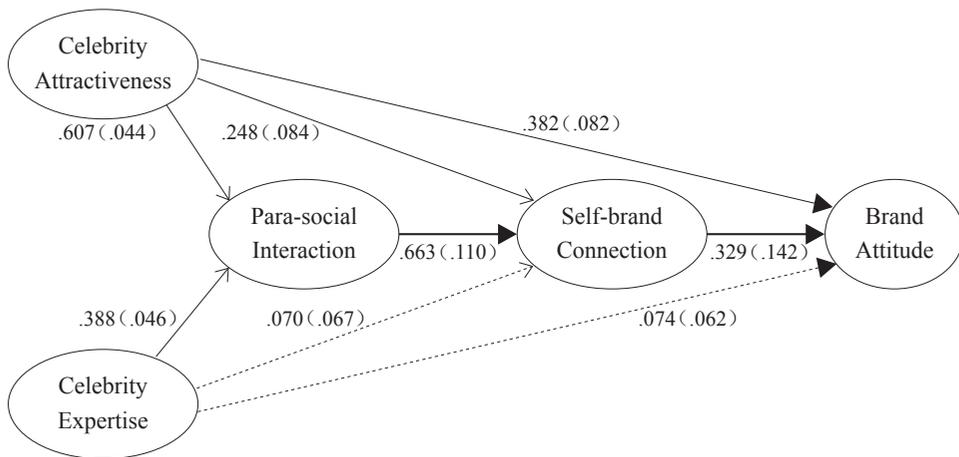
attitude towards the brand separately endorsed by the two celebrities [$F(1,853) = 3.623, p = .057 > .05$]. This means that, in reality, respondents might hold PSI and SBC with different strengths for these two celebrities with different advantages. However, there was no significant difference in the attitudes of respondents towards the brands that these two celebrities respectively represent.

Generally, the results corresponded to the pretest in that the two chosen celebrities separately had apparent advantages in the two characteristics of attractiveness and expertise.

5.2 Replicable test of the proposed model based on FB and LN sample (H1-H4)

We then tested the replicability of the proposed model on the base of the data of FB and LN. According to the results shown in Figures 3 and 4, similar to the results in Study 1, the attractiveness of both FB ($\beta = .607, p < .001$) and LN ($\beta = .604, p < .001$) significantly affected consumer's PSI with them, supporting H2a again. The expertise of both FB ($\beta = .388, p < .001$) and LN ($\beta = .505, p < .001$) significantly affected consumers' PSI with them, which supported H2b.

Figure 3. Statistical model of endorsement path based on FB sample

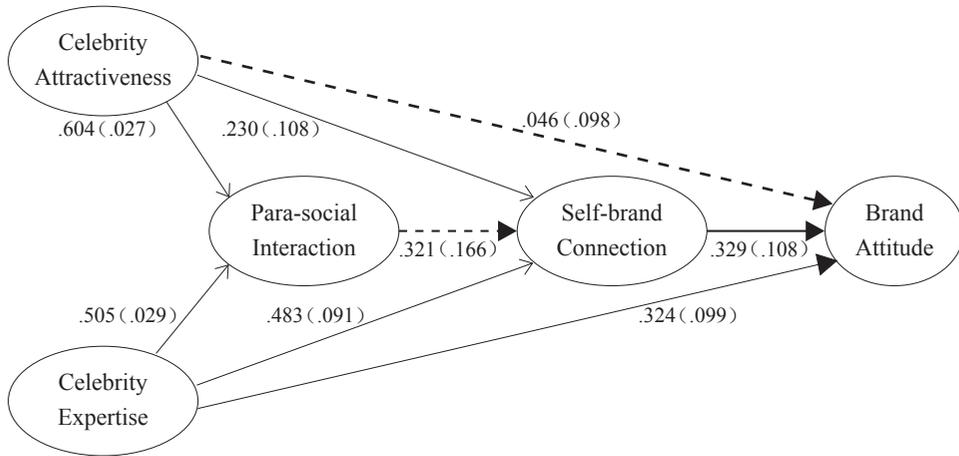


Note. $N=398$. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

All the solid line paths are statistically significant, while the dotted line paths are not significant.

Model fit: Chi-square value $X^2(314) = 1107.116$, RMSEA=0.077, CFI= 0.912, TLI=0.901, SRMR= 0.03

Figure 4. Statistical model of endorsement path based on LN sample



Note. $N=430$. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

All the solid line paths are statistically significant, while the dotted line paths are not significant.

Model fit: Chi-square value $X^2(340) = 1130.467$, RMSEA=0.074, CFI= 0.912, TLI=0.902, SRMR= 0.041

In addition, consumers' PSI with FB significantly affected their SBC ($\beta = .248$, $p = .003 < .01$), but not their brand attitude ($\beta = .238$, $p = .106 > .05$), which was similar to the result in Study 1 and which supported H4a again. Meanwhile, consumers' PSI with LN significantly affected their brand attitude ($\beta = .360$, $p = .015 < .05$) but not their SBC ($\beta = .321$, $p = .053 > .05$), supporting H4b.

Generally, the results indicated that source credibility, including attractiveness and expertise, enhanced consumer-celebrity PSI, and PSI enhanced consumers' brand-related responses (either SBC or brand attitude). The results of Study 2 are basically consistent with the results of Study 1.

5.3 Replicable test of the mediation effect of PSI (H5)

According to the results shown in Tables 6 and 7, PSI mediated the relationship between celebrity attractiveness and consumer SBC (lower 2.5% limit = 0.139; upper 2.5% limit = 0.624) as well as between celebrity expertise and consumer SBC (lower 2.5% limit = 0.082; upper 2.5% limit = 0.404) based on the FB sample. Meanwhile, PSI mediated the relationship between celebrity attractiveness and consumer brand attitude (lower 5% limit = 0.035; upper 5% limit = 0.400) as well as between celebrity expertise and consumer brand attitude (lower 2.5% limit = 0.002; upper 2.5% limit = 0.361) based on the LN sample. These results supported the mediation effect of PSI

between source credibility and consumer brand-related responses (H5) again.

Table 6. Output file of confidence intervals of standardized mediation effects based on FB sample

Confidence Intervals of Standardized Total, Total Indirect, Specific Indirect, and Direct Effects							
	<i>L</i> .5%	<i>L</i> 2.5%	<i>L</i> 5%	Estimate	<i>U</i> 5%	<i>U</i> 2.5%	<i>U</i> .5%
Effects from AT to SBC via PSI							
Sum of indirect	0.056	0.139	0.181	0.403	0.624	0.666	0.749
Specific indirect							
SBC							
PSI							
AT	0.056	0.139	0.181	0.403	0.624	0.666	0.749
Effects from AT to SBC via PSI							
Sum of indirect	0.028	0.082	0.111	0.257	0.404	0.432	0.486
Specific indirect							
SBC							
PSI							
EX	0.028	0.082	0.111	0.257	0.404	0.432	0.486

Note. AT=Attractiveness, EX=Expertise, SBC=Self-brand Connection, PSI=Para-social Interaction, L=Lower, U=Upper

Table 7. Output file of confidence intervals of standardized mediation effects based on LN sample

Confidence Intervals of Standardized Total, Total Indirect, Specific Indirect, and Direct Effects							
	<i>L</i> .5%	<i>L</i> 2.5%	<i>L</i> 5%	Estimate	<i>U</i> 5%	<i>U</i> 2.5%	<i>U</i> .5%
Effects from AT to BA via PSI							
Sum of indirect	-0.068	.000	.035	0.217	0.400	0.435	0.503
Specific indirect							
SBC							
PSI							
AT	-0.068	.000	.035	0.217	0.400	0.435	0.503
Effects from AT to BA via PSI							
Sum of indirect	-0.054	.002	.031	0.182	0.333	0.361	0.418
Specific indirect							
SBC							
PSI							
EX	-0.054	.002	.031	0.182	0.333	0.361	0.418

Note. AT=Attractiveness, EX=Expertise, SBC=Self-brand Connection, PSI=Para-social Interaction, L=Lower, U=Upper

6. Discussion

Combined with the results of Study 1 and Study 2, the following conclusions are drawn. Changes in consumer-celebrity PSI can always influence consumers' brand responses (either SBC or brand attitude). No matter what advantages a celebrity has, as long as consumer-celebrity PSI is affected by their attractiveness/expertise, PSI can act as the mediator between their attractiveness/expertise and consumer brand-related responses.

6.1 Source credibility as drivers for consumer-celebrity PSI

The results show that when a celebrity's only advantage is attractiveness or expertise, the intensity of the audience's willingness to interact with her is strongly influenced by changes in the celebrity's level of expertise. It inspires us that celebrities with a single outstanding characteristic (either attractiveness or expertise) can improve consumer-celebrity PSI by enhancing expertise. The reasons can be explained as, on the one hand, if a celebrity has only an attractive appearance but not outstanding skills or rich experience in their specific field, the improvement of their professional ability will make the people who are willing to interact with the celebrity appreciate them more and let the people who don't bother to interact with the celebrity start to recognize them. On the other hand, if a celebrity has only superb expertise in their area but lacks a perceived attractive appearance, in the case that it is not easy to greatly improve perceptions of their appearance, the development in their professional ability is still an effective way to enhance consumer-celebrity PSI.

The result also shows that, when a celebrity is outstanding in both physical appearance and professional ability, the intensity of an audience's willingness to interact with them is more susceptible to the change of the celebrity's appearance. This result tells us that, if a celebrity is both beautiful and accomplished, the increase of willingness for a consumer to interact with them lies in the growth of their beauty. In this case, the effect of expertise on consumer-celebrity PSI can be explained with the diminishing marginal effect (Horowitz & McConnell, 2007; Kushlev et al., 2018; Schwartz, Zhen & Yu, 2016). In the initial stage of increasing the input of expertise (variable factor), compared with physical appearance (fixed factor), the input of expertise is small, and therefore, consumer-celebrity PSI (marginal production rate)

continues to increase with the growth of expertise. When the ratio of expertise to physical appearance is appropriate, consumer-celebrity PSI reaches its maximum. If the input of expertise continues to increase at this time, as the amount of other factors is fixed, then expertise is relatively excessive and consumer-celebrity PSI won't increase.

6.2 Mechanism of mediating role of PSI in endorsement process

The results show that the changes of strength of consumer-celebrity PSI can always affect consumer's brand-related responses (either consumer SBC or consumer brand attitude), which corresponds to the discovery in previous studies that there is a strong and positive correlation between consumer-celebrity PSI and consumer brand-related responses (Bao & Dong, 2010; Chung & Cho, 2017; Escalas & Bettman, 2017; Sha & Zhou, 2013). PSI focuses on the inner needs of audiences with the purpose of achieving psychological and emotional satisfaction through constant exposure to media figures who can provide a sense of intimacy and friendship for them (Giles, 2002; Hartmann & Goldhoorn, 2011). The psychological satisfaction which consumers gain from PSI with a celebrity endorser could meet their emotional needs and then affect their decision-making behavior (Chung & Cho, 2017; Escalas & Bettman, 2017).

The mediation effect of PSI between source attractiveness and consumers' brand-related responses was validated. Source credibility is the baseline for inducing consumers to pay attention to an advertisement and a brand. Consumer PSI with a celebrity endorser, with psychological intimacy and emotional interaction, is the underlying reason why consumers pay special and enduring attention to a brand endorsed by the celebrity. It is not always the beauty or other merits of the celebrity endorser that directly touches the consumer, but the consumer's interactions with the celebrity endorser, inspired by the virtues of the celebrity, that lead to the consumer's cognitive and emotional involvement with the brand and a positive brand attitude (Ha & Perks, 2005; Mahlke, 2005; Oliver, 2014; White & Yu, 2005). That is why many advertisers tend to select a celebrity with huge followings—every action of such a celebrity will lead to an emotional response or fluctuation in the audience. The essence of endorsement advertising is the transformation of a material relationship between production and consumption into an interpersonal relationship between consumer

and celebrity endorser, and the transformation of rational product promotion for the general public to irrational personal consumption influenced by emotion.

6.3 Construction of the consumer's self in the endorsement process

A sense of intimacy with a celebrity endorser is not always easily transferred to brand attitude, as the results show that sometimes PSI improves consumer SBC firstly before it enhances consumer brand attitude. The mechanism by which consumer PSI with a celebrity endorser turns into consumer brand preference can be described as functioning through the following sequence of events: The consumer's sense of intimacy with the celebrity first helps reduce their uncertainty in interacting with the celebrity, similar to the way in which real interpersonal interactions occur (Rubin & Rubin, 2001). After this false sense of friendship has been established, the consumer's uncertainty towards the brand is reduced as a result of the recommendation from the celebrity as a reference group (Escalas, 2005; Kamins, 1990). This is a mental process of transferring the intimacy with the celebrity to an intimacy with the brand that the celebrity endorses. As uncertainty reduces and intimacy increases (with regard to the brand), the consumer may find that the brand has some similarities with himself or represents some of his characteristics and ideals (Govers & Schoormans, 2005). As a result, his concept of self is confirmed and approved through the connotations and properties of the brand (Litter & Melanthiou, 2006; Swann, Stein-Seroussi & Geisler, 1992). Due to this, the consumer moves towards both giving the brand a positive evaluation and consuming the product to maintain a positive self-perception. The consistency between the consumer's personality characteristics and brand's traits is thus largely influenced by consumer-celebrity PSI, and leads to the consumer's self-connection with the endorsed brand. Consumers reconstruct themselves as well as their image of the world through imitating the ideal image of the celebrity endorser.

6.4 Meaning transfer of celebrity symbols in endorsement advertising

In endorsement advertising, the brand or product is not merely recommended by a physically attractive symbol but by the consumer's partiality towards some people over others. Celebrity is still a symbol; however, this symbol not only serves as a vehicle of value transfer but as an ideal figure providing emotional sustenance. The

process of building PSI with an endorser means that the consumer has integrated the sorrow and happiness of the endorser with their own psychological activities, and the process of establishing SBC with the brand indicates that the consumer has integrated the brand with their own self-concept (Batra, Ahuvia & Bagozzi, 2012). The more the actions of the celebrity endorser make an emotional connection with the consumer, the stronger the PSI is; similarly, the closer the brand is linked with the consumer's self-concept, the more meaningful the SBC is.

From being the "captive" of the celebrity endorser to the "captive" of the brand, consumers extend their love for the celebrity to a love for the brand, and then develop a passionate and strong attitude towards the brand (Hwang & Kandampully, 2012). The symbolic meaning of the celebrity endorser finally becomes a component in constructing part of the consumer's self through concrete purchasing behavior (Escalas & Bettman, 2005; Sirgy, 1982). Once the SBC has been established, the consumer regards the brand as one that suits them well, and tends to have a positive attitude towards the brand.

7. Theoretical Contribution

7.1 Integrating consumer-celebrity relationship perspective into a celebrity-centered paradigm

The research introduces another stream, related to interpersonal relationships, to the celebrity-focused research perspective through testing the role of consumer-celebrity PSI in the endorsement process, demonstrating a complete path from endorser credibility to consumer brand-related responses. The thrust of the thesis gives consumers a position of prominence and initiative in the conversion of product promotion through celebrity endorsement into actual consumption. This makes the theories, especially the source attractiveness model in the field of celebrity endorsement, more helpful when trying to understand the social trends of the increasingly popular fan economy.

7.2 Expanding exploration of PSI from the field of celebrity worship to the endorsement advertising field

Previous studies either placed PSI in the field of celebrity worship (with a focus on

how the audience's false sense of intimacy with a celebrity leads to identification with or worship of the celebrity) or in the field of consumption (regarding PSI as a powerful factor that influences the relationship between consumer and brand as well as consumer purchase behavior). There are few studies exploring the specific role of PSI in celebrity endorsement, namely, how PSI bridges source credibility and consumers' brand-related responses. This paper contributes by extending the utilization of audience-celebrity PSI in a relationship-oriented paradigm from the field of celebrity worship to the field of celebrity endorsement.

Besides for the specific test of the role of PSI in endorsement process, this paper also provide new insights for the factors affecting audience-celebrity PSI through integrating PSI into a source credibility model, finding the predictive power of source expertise on PSI as well as distinguishing the impact of different levels of source credibility on PSI, which supplements the studies on drivers of PSI.

7.3 Including SBC in attitude models

With an integrated model of endorsement effect based on relational bonding among consumer, endorser, and brand, SBC is no longer an isolated predictor for brand evaluation or the outcome of endorser credibility. Rather, it is a crucial step in the endorsement process that bridges the consumer's relationship with the endorser and the consumer's evaluation of the brand. The inclusion of SBC in attitude research completes the traditional attitude models, which until now have been limited to decision-making behaviors with functional attributes. In this research, the knowledge gained in relation to SBC has been generated by self-concept research, focusing on symbolic and personality-related attributes. This knowledge helps to explain and describe consumers' social behavior in relation to both its functional and symbolic attributes.

8. Managerial Implications

This research provides helpful insights for market practitioners, brand managers, and advertisers who are looking to build their brands by encouraging their customers to interact with the celebrity endorser and thus get involved with the brand.

Marketers should try to build PSI between consumers and celebrity endorsers. In

order to do so, they must know if their brand meets any of their consumers' psychological and emotional needs. This means a thorough understanding of the target consumer. Marketers and advertisers may predict the degree and scope of consumer preference through consumers' online PSI behaviors with a celebrity. Especially with the emergence and boom of social media, consumer engagement with brand and product promotion can then be achieved in a variety of ways. The private behaviors of celebrities are often within the focus of public attention. Celebrities become more accessible with the dissemination of information on their daily lives and work through social media such as Facebook, Instagram, Weibo, etc. The number of online followers and, in particular, the proportion of consumers engaging in behaviors such as viewing, searching for, and sharing information on a celebrity, posting comments or other statements to support or oppose a celebrity, sharing pictures and videos of the celebrity from film or television works, and organizing fans groups on social media, with the most dedicated fans even engaging in commercial activities related to a particular celebrity—all of this can be tracked by marketers and advertisers to predict the degree and scope of consumer preference in terms of establishing PSI with celebrities. Marketers can thus utilize consumer PSI with a celebrity endorser based on cognitive and affective communication, with irrational factors, to cultivate a long-term, loyal consumer relationship with the endorser as well the brand. It is very possible that when audiences are loyal to a celebrity endorser, they are more willing to develop a fondness for the brand that is used or recommended by the celebrity, and further, tend to trust the quality of the product endorsed by the celebrity.

9. Limitations and suggestions for future research

Demographic factors require more attention in further exploration of the connection between consumers and celebrity endorsers. Firstly, consumers of different ages may vary in their motivations and needs when building a connection with celebrity. The majority of the subjects in both studies were young people. Further research may look to replicate these tests in a wider range of consumers in order to check the feasibility of the established model. Secondly, when verifying the overall model, the subjects were restricted to a celebrity of the same gender as themselves. The strong preference that some subjects may have for a celebrity of the opposite sex was not considered, since some of the characteristics of a female endorser, for example, such as beauty and sexual attractiveness,

may be perceived with inconsistent understanding among consumers with gender-stereotyped connotations. Further studies may look to replicate these tests with opposite or mixed gender combinations, and with more attention paid to the differences between male and female subjects in understanding the characteristics of a celebrity. Thirdly, the current study was conducted in the Chinese market, using Chinese consumer responses to local celebrities, which limits the scope of external validity of this study. However, given the commonalities of human nature in terms of cognitive and emotional preferences for celebrities, the author believes the path proved in this study is applicable to groups of consumers in other cultural contexts without seriously disturbing the external validity of the findings. Future comparative and replicate studies that examine the application of the proposed path cross-nationally and cross-culturally will deliver new academic and managerial insights for global markets.

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