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Are Consumer and Brand Personalities the Same?

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Are Consumer and Brand Personalities the Same?

Abstract

Current discussions of brand personality refer to a *personified* brand image, that is, a brand image that can possess any attributes of consumers, rather than brand *personality*. From a conceptual and methodological critique of the literature, this paper applies the definition of personality to brand personality, and tests the idea using a peer-rating methodology which focuses on each individual's perception of a brand (the brand x subject structure). The results reveal that consumers reflect their personalities by the brands they use, but the relationship between brand choice and symbolic dimensions (i.e. extraversion, agreeableness, neuroticism, and openness to experience) is much stronger than the relationship with functional dimensions (i.e. conscientiousness). Moreover, the pattern of this relationship remains consistent across symbolic and utilitarian products, which implies that consumers choose brands with similar personalities to theirs across various products. The study concludes that an abridged personality scale, based on the Big Five, can be applied to both brands and consumers.

Keywords – personality, brand personality, self-identity

Are Consumer and Brand Personalities the same?

Introduction

Brand personality is a popular metaphor in marketing to investigate consumers' brand perceptions and describe brands as if they were human beings. On the basis of its usage among marketing practitioners, it has been defined as a "set of human characteristics associated with a brand" (Aaker, 1997: 347) and a brand personality scale has been developed. Although both Aaker's brand personality scale and the dominant personality scales (John, 1990; John & Srivastava, 1999) yield a five-factor structure, only three factors, namely sincerity, excitement, and competence appear in both personality structures. This raises the question: if brand personality is imagined by consumers, why does the structure of brand personality not mirror that of personality?

If brand personality and personality do possess the same structure, the question which emerges is: can personality theories be extended from people liking people with similar personalities (Aron, Aron, Tudor, & Nelson, 1991) to people liking brands with similar personalities? This 'fit' hypothesis that the most favorable brand personality is that which fits the brand owner's own personality has been demonstrated in past studies, which have shown that brand image generally reflects the user's self-identity (e.g. Grubb & Hupp, 1968; Thompson & Haytko, 1997). However, the reflection generated is normally based upon positive images, while personality traits are not always positive. This raises the question of whether this fit hypothesis will be supported for negative personality traits such as neuroticism.

An additional observation is that brand personality studies have shown instability within the factor structure (Aaker, Benet-Martinez, & Garolera, 2001; Caparar, Barbaranelli, & Guido, 2001; d'Astous & Levesque, 2003). This is in conflict with the generally accepted notion that personality is stable across different situations (Schmitt, Allik, Mccrae, & Benet-Martínez, 2007). It not only questions the nature of current brand personality measures, but also raises the issue of whether the relationship between consumer and brand personalities are the same across all product categories, that is, do consumers consistently express that personality across most of their purchases in different product categories by choosing brands which reflect their personalities? For example, would a consumer buy the same image of jeans and of soft drinks? Research on 'I am what I consume' usually focuses on symbolic products with high involvement, such as cars and clothes. Low involvement products, especially utilitarian ones, have not been properly investigated and so the question, 'does 'I am what I consume' apply across various product categories,' remains unanswered.

This paper tackles these issues by revisiting personality theory and the brand personality literature to analyze why differences exist. These explanations are then addressed in the paper by proposing that brand personality can, and should mirror personality and that they can be measured using the same instrument. The paper begins by discussing why current brand personality scales do not mirror measures of personality, before presenting the conceptual framework linking consumer personality and brand choice.

Why do measures of brand personality not mirror measures of personality?

All of the attempts to measure brand personality in the literature found different dimensionality from the commonly accepted five dimensions of personality called the Big Five

(Aaker, 1997; Aaker et al., 2001; Caprara et al., 2001; d'Astous & Boujbel, 2007; d'Astous & Lévesque, 2003; Sung & Tinkham, 2005; Venable, Rose, Bush, & Gilbert, 2005) (see Table 1 for the definition of the Big Five and see Table 2 for the comparison of the factors extracted based on personality and brand personality). Two possible methodological reasons can explain this. The first arises from the potential problem of using metaphors in research. In order to successfully transfer the personality metaphor, consumers need to stretch their imagination and see brands as human beings (O'Malley & Tynan, 1999). The imagined brand personality is formed via inferences based on observations of 'brand behavior' (Allen & Olson, 1995) and this brand behavior is derived from what happens in everyday situations (Fournier, 1998). Therefore, the selection of brands to be evaluated needs to be those with which consumers have everyday or frequent experiences if respondents are to be able to comment in detail on as many 'personality' dimensions of a brand as possible. If they do not have a close relationship with the brands they rate, the descriptions they produce may be superficial, and inadequate for scale development.

Insert Table 1 here.

Insert Table 2 here.

The literature on personality scale development in psychology has addressed this problem by suggesting that the rating of brand personality should resemble peer-rating, which is a popular means to, in part, determine the validity and reliability of personality inventories (Costa & McCrae, 1992: 48). The choice of 'peer' raters is made among spouses, best friends or roommates because research

has shown that the validity (Paulhus & Reynolds, 1995) and reliability (Norman & Goldberg, 1966) of personality ratings can be improved according to how familiar the rater is with the ratee. Although brand personality scale developers used 'well-known' brands (e.g., Aaker, 1997), well-known brands are not necessarily used every day, and do not necessarily convey 'intimacy' with the consumers (Allen & Olson, 1995). Therefore, well-known brands may not be a good peer to be evaluated, and may jeopardize the validity and reliability of any resulting scale. The nearest brand to a peer might be argued to be a person's favorite brand or a most frequently used brand which should be able to resolve this potential issue.

A second reason for differences between personality and brand personality results from different foci of the structures, that is, between-brand, within-brand, or brand x subject structure, extracted by factor analysis. Between-brand structure is determined by the aggregated data from the responses averaged across subjects, and has been the predominant research design in creating brand personality measures (e.g. Aaker, 1997; Aaker et al., 2001; Caprara et al., 2001; Venable et al., 2005). In contrast, for within-brand structures, the data is extracted at an individual level with regard to the same brand, while the integration between brands and subjects (brand x subject structure) treats each response of each brand individually. Investigations reveal that between-brand and within-brand structures are less stable, while brand x subject structure is more stable and more closely resembles the structure of the Big Five personality traits (Geuens, Weijters, & De Wulf, 2009; Milas & Mlačić, 2007). One reason why the between-brand structure is less stable may be because too few brands are being evaluated (e.g. 39 in Aaker's case). This is different from the between-individual structure in personality psychology because, by factor analyzing a between-individual structure, personality researchers may obtain enough individuals to generate a robust result.

Although it can be argued that brand personality is determined by differences among brands, rather than among individuals, suggesting that a between-brand structure is appropriate, the structures of between-brand, within-brand, and brand x subject serve different purposes, just as the personality structures of between-individual and within-individual have different emphases (Cervone, 2005). For example, a between-brand structure possesses valuable managerial implications because companies are able to locate their brands in relation to their competitors'. A within-brand structure can facilitate companies' understanding of their brands, and may be able to compare the structures of brand users and non-users. However, based on Allen and Olson's (1995) definition of brand personality, which emphasizes the individual consumers' perceptions of the brands and experiences with the brands, a brand x subject structure is more appropriate. A brand x subject structure focuses on the perceptions of individual consumers, because each individual may see the same brand differently, and because each individual may have a different preference for a brand in the same product category. Such a structure implies stability of the brand personality dimensionality being extracted, which is important if brand personality is a reflection of consumer personality where the dimensionality is stable. As a result, a brand x subject design would be preferable for developing a brand personality scale.

Linking brand and consumer personalities

The most cited personality definition suggests that personality is "the dynamic organization within the individual of those psychophysical systems that determine his unique adjustments to his environment" (Allport, 1937, p. 48). Thus, personality can be seen as a configuration of an individual's cognition, emotion and motivation, which activates behavior and reflects how the

individual adjusts to the environment by incorporating his life experience (Murray, 1938; Triandis & Suh, 2002). Self-report personality, a method often used by consumer researchers, is the individual's perception of himself in terms of personality. To psychologists then, personality refers to an individual's 'inner' characteristics (Allport, 1937; Murray, 1938; Triandis & Suh, 2002).

The best known definition of brand personality defines it as a "set of human characteristics associated with a brand" (Aaker 1997, p.347). This definition works well if these human characteristics are only psychological and not others, such as demographics or physical appearance. Unfortunately, with such a 'broad' definition of brand personality, many items of Aaker's scale appear problematic. For example, the sophistication dimension mainly looks at appearance (i.e. glamorous, good looking and charming) and demographic background (i.e. upper class). Having such a variety of initial different items in the pool naturally results in different dimensionality. In overlooking the theoretical foundation of personality, the item pool generated for developing the brand personality scale can be questioned. This fact has led some researchers to challenge whether Aaker's brand personality scale actually measures brand personality (Austin, Siguaw, & Mattila, 2003; Azoulay & Kapferer, 2003). In fact, Aaker's definition of brand personality refers to personified brand image, rather than brand personality (Lau & Phau, 2007). A personified brand image is one which can include any attribute of a person, not just psychological ones.

This different conceptualization is a result of Aaker (1995) arguing that the notion of personality differed between the context of brands (consumer behavior) and the context of people (psychology). However, by applying the concept of impression formation of real people (Park, 1986), Aaker (1997) extends brand *personality* to include associations with both inner and outer human characteristics. Therefore, this notion can be challenged, because brand personality should reflect the consumer's perception of the inner characteristics of a brand if the brand were a human

being (Allen & Olson, 1995). This challenge is supported by other definitions of brand personality, which suggest that it is "the set of human personality traits that correspond to the interpersonal domain of human personality and are relevant to describing the brand as a relationship partner" (Sweeney & Brandon, 2006: 645). Both personality and brand personality are forms of an individual's perceptions. This perception uses the form of personality in psychology, where personality research and its definition have developed over many years (Pervin, 1990). Personality is a term that is used to describe what a person is like and brand personality is a metaphor which is used to illustrate what personality a brand would have if it were a person. Therefore, given that the definitions of personality and brand personality overlap, any good, valid and reliable personality inventory should be able to be applied to brands as well as to people (Capelli & Jolibert, 2009). Thus, the factor structure of a personality inventory should be the same regardless of whether the subjects are people or brands and, therefore, it is proposed that:

H1: The factor structures of personality and brand personality are the same.

The next question revolves around the nature of the relationship between consumer and brand personalities. It has long been believed that consumers consume to enhance or reflect their self-identities (Levy, 1959) and that "we are what we have" (Belk, 1988: 160). Studies of the relationship between self-identity and brand choice have assumed that an individual is 'completed' by using various brands to support the relevant self identity (Klein, Kleine, & Kernan, 1993). Thus, the meanings of various products or brands are mainly used to present who the owners are, that is, their self-identities (Thompson & Haytko, 1997). For example, a woman who buys Body Shop products may intend to show that she is concerned with environmental issues and that this fits with her personality. To capture the meaning of self-identity, personality has been seen as the dominant

tool by psychologists (Leary & Tangney, 2003). In fact, self-report personality can be seen as an individual's perception of his self-identity. Similarly, brand personality is able to represent the consumers' perceptions of the brand as if it were a person. Therefore, if brands are one of the resources used to reflect consumers' identity, it is argued that consumers will choose brands which reflect their personalities. Thus it is hypothesized that:

H2: A positive relationship exists between consumer and brand personalities for consumers' preferred brands.

Thirdly is the question of whether the relationship between consumer and brand personalities is stable across product categories. The reason that possessions are valued lies in the meanings their owners assign to them and these meanings are constructed by the way in which people understand their world. These brand meanings are embedded in the society as a whole and understood by the individual's interaction with the society. This is known as symbolic interactionism (Blumer, 1962) and the success of an individual's role performance depends on the consistency of social meanings assigned via his/her brands (Solomon, 1983). This view is in line with the argument that individuals are "symbolic projects" (Thompson, 1995: 210).

However, the relationship between self-brand identity and behavioral intentions is inconclusive. While Escalas (2004) found a strong relationship, Sirgy, Johar, Salmi, and Claiborne (1991) found the relationship, though it exists, to be a weak one. Low correlations may be due to different measures used, differences in the product categories studied and differences in the 'selves' examined in the studies. For example, research has found that the relationship between actual self and brand choice outperforms the relationship between ideal self and brand choice (Belch & Landon, 1977). This result may be explained by the layers of selves which can be boiled down to two classes:

one is an ongoing sense of self-awareness and the other is a stable mental representation (Hart & Karmel, 1996). Individuals use these stable mental representations to build an internal model of the world of the self, which is referred to as self-knowledge (Pinker, 1997) or symbolic self (Sedikides & Skowronski, 1997). While other selves, such as ideal self or expected self, can vary in context, the mental representations, represented by personality traits and values, are stable regardless of the context which the individual is in. Although self-identities can be manifested via different roles in different situations, the personality underlying the individual remains more or less the same. It follows that if consumers do use brands to maintain or enhance their own self-identities, the relationship between consumer and brand personalities should not be influenced by different product categories and that consumers should consistently choose the brands with images that are associated with their 'personalities'. In other words, whether the product is symbolic or functional does not have a moderating effect on the relationship between consumer and brand personalities. Therefore it is hypothesized that:

H3: Product category (i.e. symbolic or utilitarian products) does not moderate the relationship between consumer and brand personalities of consumers' preferred brands.

Insert Figure 1 here.

Methods

In order to ensure the reliability and validity of the abridged personality scale for consumer and brand personalities and to facilitate hypothesis testing, the study had three stages, namely, the

exploratory interviews, product pre-tests and the experiment (main study). In stage 1, exploratory interviews were designed to help the development of the main study in two ways. First, they were used to examine how consumers perceive favorite brands, most-frequently-used brands and famous brands. These results would help to validate the use of favorite or most-frequently-used brands in developing the brand personality scale. Second, they were used to find whether the two dimensions, neuroticism and openness to new experience, are applicable to brands, since most brand personality scales missed these two dimensions (see Table 2). The purpose of stage 2 was to select suitable product categories for the experiment which reflected utilitarian and symbolic products with different levels of involvement. The abridged personality inventory was then face validated and the final stage, the experiment, was carried out for hypothesis testing.

Stage 1 – Exploratory Interviews

In-depth interviews were used to facilitate the elaboration and interpretation of how consumers think about brand personalities. Eleven British Caucasian undergraduate students (five males and six females[1]) under the age of 22 were recruited via flyers on campus in a university in England and interviewed for between 40 and 100 minutes about themselves and various brands in different product categories. The discussion started by talking about themselves (i.e. their personalities) and then moved on to discussing brands in the product categories which interested the interviewees, including clothes, MP3, laptop computers, cars, as well as product categories to which

[1] Interviews with 5 males and six females were conducted. Since data from 11 interviews were rich enough, no additional interview was carried out.

they normally would not pay much attention, so called 'invisible brands' (Coupland, 2005), including packaged foods, cereals and kitchen cleaning products. Finally, respondents were asked to freely describe the brands they mentioned as though they were human beings.

Following the interviews, two consumer research expert raters used a coding scheme to classify the interviewees' description of various brands into personality dimensions. The results showed that even though 'famous' brands did have an advantage in projecting the personified brand image based on the marketing communications informants were exposed to, they were only able to describe relatively 'superficial' personalities about these brands. When the experience level was increased (i.e. constant usage), informants started to describe, not only the personality, but also their relationship with the brands (Fournier, 1998). For example, Heinz ketchup and Kellogg's cornflakes were two of Katie's favorite brands; she described them as *reliable, steady* and *trustworthy*. But they are not everyday essentials; she said, 'if we just had a friendship, it would be a friendship of convenience.' However, when she talked about Primark (one of her favorite clothes shops), she said, 'it is a very exciting and new friendship, but it's becoming more steady.' The importance of the experience with the brand in describing brand personality was therefore confirmed as was the appropriateness of using the concept of peer-rating from psychology, which simulates these favorite and most-frequently-used-brands as peers being evaluated.

The second purpose of the exploratory stage was to examine how applicable the Big Five dimensions are to brand personality, especially the two dimensions, neuroticism and openness to experiences. To do this, when informants were asked, 'what person would it be like if the brand were a human being?', they were free to choose any word to associate with the brands that they used and the interviewer did not provide them with any hint. After the informants described the brand person, they were probed more on personality traits and asked, 'personality-wise, what kind of

person would it be?' Informants used a total number of 97 adjectives to describe their brands (Table 3). Of these 97 adjectives, 73 were spread across the Big Five personality dimensions, including neuroticism and openness to experience. The findings suggested the dimensions of neuroticism and openness to experience were also relevant to brand personality. The remaining twenty-four adjectives did not belong to the Big Five since they were about demographics (e.g. well-off, rich, posh) and appearance (e.g. stylish, fat, cute, old).

Insert Table 3 here.

Stage 2: Utilitarian/symbolic product pre-test

To test hypothesis 3, a product pre-test was conducted to ensure that both utilitarian and symbolic product categories were included in the research. Sixteen products were put forward to test: cars, banking services, soaps, beers, jeans, mobile phones, washing powders, digital cameras, dish-washing detergent, shampoos, laptop computers, shower gels, underpants, desktop computers, snacks, and soft drinks. They were chosen based on the interview results in Stage 1 and to represent products which were owned and used by most undergraduate students.

Involvement and feeling measures were used to classify the products with high feeling, suggesting symbolic products, while low feeling indicates utilitarian ones (Ratchford, 1987). Checks were also made on (i) whether they owned the product being rated and (ii) the level of familiarity with the brands for each product category. In order to avoid respondent fatigue from answering the involvement and feeling questions for sixteen products, each respondent was asked to evaluate four

product categories. Thus sixteen products were spread across five questionnaires and each questionnaire contained four products. To facilitate the examination of group variance, which could help determine whether it was appropriate to combine the five sets questionnaires for further analysis, the study included the same product (i.e. cars) across all questionnaires (Aaker, 1997). Four product categories were then selected to represent each cell the 2 (high and low involvement) x 2 (symbolic and utilitarian) design. The product pre-test questionnaires were distributed in a second year compulsory course at Warwick Business School, England. Each student was assigned one of the five questionnaires randomly and they filled out the questionnaires voluntarily. Two hundred and six questionnaires were distributed and 152 questionnaires were returned, resulting in a 74% response rate.

ANOVA showed that cars from different questionnaire sets had similar results. The *F* statistics revealed that the *p*-values of the responses for cars were greater than .05 (ranged from .53 to .99), indicating a low group variance of different sets of questionnaires. Thus, it was appropriate to combine all five sets questionnaires for further analysis. Two summated scales were formed for involvement and feeling to plot the product categories for visual inspection. Four products, situated at the extreme of each quadrant, were selected for the final questionnaire. These were: laptop computers for high involvement and low feeling; dish-washing detergent for low involvement and low feeling; jeans for high involvement and high feeling; and soft drinks for low involvement and high feeling. The frequency results suggested that more than 85% of the respondents consumed or possessed the selected products and that more than 65% were familiar with the brands within the product categories.

Stage 3 – The Experiment

Procedure

A self-administered paper-and-pencil questionnaire was distributed to undergraduate students at the University of Warwick, England. The students were encouraged to participate in the research by entering them into a prize draw with several cash incentives of £5, £10 and £20. Each student was randomly assigned to evaluate the brand personality for one of the four pre-selected products. Unlike previous studies (e.g. Aaker, 1997; Aaker, 1997; Aaker et al., 2001; Caprara et al., 2001; d'Astous & Boujbel, 2007; d'Astous & Lévesque, 2003; Sung & Tinkham, 2005; Venable et al., 2005), the brand selection procedure asked the participants to rate the brand personality of their *favorite* brands in the assigned product categories, so as to ensure that the participants possessed intimate knowledge of the brands. In cases where the participants did not have a favorite brand, they were instructed to rate the brands that they most frequently used.

Measures

Both brand personality and consumer personality were measured with the same personality inventory. Considering the length of the personality inventory, the format, and reliability and validity issues, Saucier's (1994) Big-Five mini markers was selected. This measurement includes 40 adjectives covering five dimensions, namely extraversion, agreeableness, conscientiousness, neuroticism, and openness to new experience. The 40 adjective items were shortened from Goldberg's (1990) 100 markers and have been found to be reliable and valid (Dwight, Cummings, & Glenar, 1998; Mooradian & Nezlek, 1996). To face validate the measure, it was piloted with ten undergraduate students who rated their personalities and their favorite brands' personalities. The

pilot results confirmed that the personality inventory was easy to understand and to answer for the respondents themselves, as well as for the brands they used.

Sample

To minimize the variance that can rise from age, culture and other factors, a homogenous sample was recruited to maximize the effect of personality within the same age group and the same cultural background (Calder, Phillips, & Tybout, 1981). Thus, a sample of 468 British Caucasian undergraduate participants (aged between 18 and 24 and who had been living in the U.K. for most of their lives) was recruited. The sample contained an even split between males and females and the number of questionnaires returned for each product category ranged from 112 to 126. The number of favorite brands or most frequently-used brands generated by all the participants was 90[2].

Analysis & results

To test the dimensionality of the consumer personality and brand personality scales, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were used. The EFA results demonstrated that both consumer personality and brand personality showed a very clear five factor solution (Table 4). To ensure that these loadings were reliable, the data were put into CFA for further examination and purification.

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[2] Brands generated for the study came from instructing participants to choose either their favorite brand or the brand they most frequently used and not any known brand. This design facilitates the brand x subject structure and simulates the peer-rating method used in psychology.

Insert Table 4 here.

LISREL 8.54 was used to conduct CFA, using maximum likelihood estimation. The initial solutions for both brand personality and consumer personality from CFA were less than satisfactory (but this result was expected because personality measures are seldom evaluated by CFAs). For each factor of consumer personality, the composite reliability was good (.74~.85), but the average variance extracted (AVE) did not meet the cut-off criterion of .50 (.30~.45). In addition, the model did not show a satisfactory fit (χ^2=3662.49, df=730, p<.01; SRMR=.091; RMESA=.093, 90% C.I.: [.090, .096]; TLI=.78; CFI=.82). These poor model fit results were consistent with other studies which used CFA to examine these personality measures (Dwight *et al.*, 1998; Mooradian & Nezlek, 1996). Similarly, the composite reliability for each factor of brand personality was good (.81~.90), but the AVE, although better than that of the consumer personality scale, was not good enough (.39~.55). The model fit was similar to that of the consumer personality scale (χ^2=5456.27, df=655, p<.01; SRMR=.10; RMSEA=.125, 90% C.I.: [.12, .13]; TLI=.87; CFI=.87). As some factor loadings were as low as .27 for consumer personality and .08 for brand personality, further purification of both scales was needed.

The measurement models of personality and brand personality were purified separately and followed the same purification procedure. Unsuitable items were determined by low factor loadings and high modification indices and they were dropped one by one. That is, after the most unsuitable item was removed, a CFA was run on the remaining items. This procedure was used to ensure each deletion was necessary. After purifying the measurements, the results indicated that personality and brand personality could be measured by the same measurement items. The factor loadings (λ),

composite reliability, AVE, Cronbach's alphas, and various model fit indices were all reasonably good (Table 5 and Table 6). The standardized factor loadings (λ) were all above .45 with an average above .70; composite reliability ranged from .75 to .87; AVE ranged from .49 to .64; Cronbach's alphas ranged from .73 to .86.

Insert Table 5 here.

Insert Table 6 here.

Next, both personality and brand personality items were put into the same CFA. The standardized factor loadings, composite reliability and AVE were similar. The various model fit indices improved (χ^2=1617.93, df=620, p<.01; RMSEA=.059, 90% C.I.: [.055, .062]; TLI=.92; CFI=.93; SRMR=.065). Table 7 shows that the interrelationships among the brand personality dimensions were stronger than that among consumer personality. In summary, although the internal mechanisms of brand personality and consumer personality (i.e. the interrelationships among consumer personality and brand personality dimensions) are different, brand personality and consumer personality can be measured by the same means, and generate the same dimensionality; thus, H1 is supported.

Insert Table 7 here.

A structural equation model (SEM) was used to examine H2, which suggested each factor of consumer personality as having a direct and positive relationship with the corresponding factor of brand personality with regard to their preferred brands (Figure 2). The relationships between the consumer and brand personality were shown to be significant, ranging from .12 (t=2.38, p<.01) to .37 (t=6.44, p<.01). Moreover, as the model fit indices were above the norm cut-off criteria (χ^2=1891.30, df=650, p<.01; SRMR=.10; RMSEA=.064, 90% C.I.: [.061, .067]; TLI=.90; CFI=.91), H2 is supported. This implies that consumers used brand meanings to construct or reflect their self-identities.

Insert Figure 2 here.

H3 proposed that product category did not moderate the relationship between consumer personality and brand personality of consumers' preferred brands. Multiple group comparison SEM was not used here because of limited group sample size (below 70 observations in each group). Instead, the regression coefficients between consumer and brand personality among the four product categories were examined (Baron and Kenny, 1986). The regression coefficients were compared by an F statistic calculated as follows (Cohen, Cohen, West, & Aiken, 2003):

$$F = \frac{SSc - SSp \big/ k-1}{\frac{SSp}{dfp}}, \text{ where}$$

$SSc = \text{Residual Sum of Squares of combined groups}$

$SSp = \sum (\text{Residual Sum of Squares})_i$

$dfp = \sum (\text{Residual degree of freedom})_i$

k = No. of groups (= 4, that is, jeans, soft drinks, dish-washing detergents and laptop computers)

Whether or not the brands evaluated were favorite or most-frequently-used brands may influence the relationship between personality and brand personality, therefore the comparisons were carried out separately. Among the group of favorite brands the results were: $F_{Extraversion\ (3,\ 196)} = 1.72$ ($p>.05$), $F_{Agreeableness\ (3,\ 196)} = 3.77$ ($p<.05$), $F_{Conscientiousness\ (3,\ 196)} = 2.77$ ($p<.05$), $F_{Neuroticism\ (3,\ 196)} = 2.03$ ($p>.05$), and $F_{Openness\ to\ new\ experience\ (3,\ 196)} = 0.76$ ($p>.05$), where $F_{critical} = 2.65$, $\alpha = .05$, and $F_{critical} = 3.88$, $\alpha = .01$. Among the group of most-frequently-used brands results were; $F_{Extraversion\ (3,\ 256)} = 2.60$ ($p>.05$), $F_{Agreeableness\ (3,\ 256)} = 2.90$ ($p<.05$), $F_{Conscientiousness\ (3,\ 256)} = 2.18$ ($p>.05$), $F_{Neuroticism\ (3,\ 256)} = 3.58$ ($p<.05$), and $F_{Openness\ to\ new\ experience\ (3,\ 256)} = 3.53$ ($p<.05$), where $F_{critical} = 2.64$, $\alpha = .05$, and $F_{critical} = 3.86$, $\alpha = .01$. The cutoff critical F values at $\alpha=.01$ was followed because F statistics is sensitive to sample size (Hair et al., 1998). When a sample size exceeds 100, over sensitivity issue may occur. In this case, the sample sizes for the favorite and most-frequently-used groups exceed 200 (204 and 264 respectively). In order to offset the sensitivity issue originated from sample size, a more stringent benchmark ($\alpha=.01$) was used. Since the calculated F values are below the critical F values when $\alpha=.01$ for all dimensions of personality and brand personality, no significant difference was found. That is to say, there is no discernable moderating effect of product category to the relationship between consumer and brand personalities; thus H3 is supported[3].

Discussion and Implications

[3] Gender was controlled for when examining H3, but had no effect. Therefore, analysis of gender was removed from the paper because of the limitation of space.

The study confirms that consumers prefer to use brands that are similar to their own personalities. There are several explanations for this. Traditionally, one explanation has been that consumers like to express the type of person they think they are through the use of brands (Belk, 1988). Brand personality can be seen as a direct link between brands and consumers' projection of the 'brand person'. This argument is strengthened by a low correlation, albeit significant, between the dimensions of consumer conscientiousness and brand conscientiousness (Figure 2) which taps into the functional aspects of the brand such as it being organized or efficient. In comparison to other non-functional meanings of the brand (extraversion, agreeableness, neuroticism, and openness to new experiences), this functional aspect was not evaluated as important to consumers' self-identities. This finding indicates that self-identity construction or reflection is built upon emotional dimensions of brand personality, rather than the functional aspect. It is in line with emotional importance in brand symbolism (Elliott, 1998).

However, consumers might simply be more prone to positively evaluating brands along those dimensions that are part of their own personalities. Alternatively, they could be drawn to brands that match their personalities without 'using' the brand for any purpose of self-identification. For example, they might be drawn to people with similar personalities because they are comfortable to be around, but not because they are creating their own identities through them. Whatever the mechanism, the symbolism of brands is therefore one of the key considerations in marketing communications, which often attempts to establish a desirable brand image by associating a brand with a certain kind of lifestyle or a certain type of person (McCracken, 1989).

One substantive implication from this is that marketers' focus should shift from using brand personality as an image generation and possible segmentation tool to investigating the personalities

of their target consumers, in order to deliver more relevant brand image communications that are associated with the personalities of their target consumers. In doing this, however, they should, remember that the formation of brand personality is a co-creation process between consumers and brands. Marketers thus need to pay greater attention to this co-creation process of forming a brand personality and coordinate the information consumers receive via three sources: (i) marketing communications from brand companies; (ii) potential interaction among the dimensions of brand personality (Table 7); and (iii) consumers' experience of the brand (Figure 2). With the injection of consumer experience, brand personality becomes more vivid to consumers through the black box of self-identity construction (i.e. I am what I buy). This self-identity construction provides a potential feedback route to the brand companies, in order to adjust their marketing communication, which can ultimately lead to establishing a brand relationship.

Since the same scale compares brand personality and consumer personality on the dimensional level (i.e. the Big Five), this may help to understand the connection between brands and personality. Overall, for example, the results showed strong relationships between consumer agreeableness and brand agreeableness, and between consumer neuroticism and brand neuroticism (Figure 2). For this set of products and this sample then, companies might wish to highlight these dimensions in their marketing communications, since they resonate most with consumers. Interestingly, the connection even happens for such dimensions as neuroticism, where a positive relationship between consumer neuroticism and brand neuroticism was found. This finding has support from qualitative study; for example, Jenny described one of her favorite clothes brands, River Island, as someone with a few tantrums because 'you can find a really nice piece of clothing one day, but not every day.' The positive relationship between consumer and brand personalities suggests that even a 'neurotic' brand may have a positive attraction so long as consumers are neurotic to some degree. Such results also echo work which suggests that a less 'wholesome' brand

personality can be prevalent, especially among younger consumers (Bao & Sweeney, 2009). By knowing the most resonant psychological connection their brands have with consumers' own personalities, companies can maximize the effectiveness of their brands by developing this aspect of their brand's personality.

Support for hypothesis 3 challenges the view that brand personality is only applicable and helpful in explaining consumers' choice of symbolic products. The results show that respondents are also able to psychologically associate themselves positively with utilitarian products, such as laptop computers and dish-washing detergent. This finding confirms that even utilitarian products can have psychological significance, and therefore suggests that utilitarian products can be differentiated by marketers according to psychological functions and aspects of personality. Within highly utilitarian product markets, the development of branding and brand value will be welcome news for marketers seeking to add value to their offerings. This result is also important in scale development terms, since it demonstrates that the new abridged brand personality scale is consistent across product contexts.

There are some implications regarding the measurement issues involved in assessing brand personality. Although the relationship between personality and brand image can be studied by the traditional straightforward method of directly asking consumers how much they can be identified by the brands they use (Escalas, 2004; Escalas & Bettman, 2003; Malhotra, 1981), this runs the risk of consumers reporting that they resemble the brands that they choose, because they choose them, or vice versa, whereas in fact they may not. This is because self-identity construction or reflection can be pursued both consciously and unconsciously (Bargh, 1994), and when consciously asked about the brands they buy, they feel that the brands they buy 'should' reflect them. The current study advocates a less direct method by asking about the consumers' personalities and brand personalities

separately, using the new abridged 19-item scale (see Figure 3). That is, a fuller brand personality scale may be a better tool to assess the match between self identity and brand choice. By doing so, it not only poses less self-biasing risk, but also gives a much richer insight into the nature of brand personality connection that consumers have.

In the past, whether brand personality mirrored personality was subject to doubt and the comparison between the two was problematic. In addition to suggesting that conceptual consistency between the definitions of personality and brand personality should be established, this study shows that personality and brand personality are operationally comparable. Moreover, the new brand personality scale is stable across contexts, as is the case with consumer personality measures. This comparability facilitates the comparison between consumer and brand personalities directly, and increases the theoretical appropriateness of this comparison. Moreover, since the term 'personality' is used by brand researchers, it is semantically and theoretically appropriate to reflect on its proper origins to avoid confusion, especially in cross-disciplinary research. It is therefore suggested that brand personality should not indicate demographics or appearances; if what researchers want to find out is the *inner* characteristics of a brand associated with human beings, brand personality can be used.

Conclusions and future research

Since the development of a brand personality scale (Aaker, 1997), research using the concept has increased (Ang & Lim, 2006; Diamantopoulos, Smith, & Grime, 2005; Helgeson & Supphellen, 2004) with most researchers overlooking the potential risks of the scale lacking theoretical and empirical underpinnings from the literature on personality in psychology and other criticisms (Austin

et al., 2003; Azoulay & Kapferer, 2003; Capelli & Jolibert, 2009; Sweeney & Brandon, 2006). This paper attempts to overcome these issues, and proposes a new brand personality scale that allows marketers to compare more easily across different consumption contexts. The current study gives brand personality a theoretical home, and moves the relationship between consumption and personality forward in several ways.

The first is to improve the method used to generate brand personality scales. For example, our critique of previous research highlights the differences in the methods of brand selection and foci of personality structures (between-brand, within-brand, or brand-by-subject) which may have led to the different factor structures being found in previous brand personality studies. Second, by applying the preferred methods of peer-rating and by focusing on each individual's perception of a brand (the brand-by-subject structure), this study has developed an abridged personality scale for consumers and brands which is replicable across different product categories. Third, it furthers traditional personality studies, which have tended to use only EFAs to identify the dimension structure by using SEM for a more rigorous examination. This resulted in support for the idea that consumer personality measures could be used to investigate brand personality. Fourth, it provides evidence to challenge the view that brand personality is only relevant to symbolic purchases, since there was evidence that psychological significance also applied to utilitarian brands.

To conclude, there are some issues that this research has not covered, and these may stimulate future research. The current research investigated the relationship between the actual self and brand personality. Future research may explore the relationship between brand personality and other dimensions of the self, such as the ideal self, the social self and the ideal social self, or other roles in life, such as the ideal father role, the ideal boss role and the ideal husband role. All of these roles might have different brands which allow a consumer to self-complete his or her vision of the

ideal. Within this context, it is still uncertain whether consumers reflect or construct their self-identities through the use of brands. The study found a theoretically sound and methodologically plausible measurement for self-identity (personality) and brand personality which may help develop rigorous experiments to examine the question of identity reflection and construction in the future.

Since a strong relationship was found between consumer personality and the personality of consumers' favorite brands, it may be of interest to look at the relationship between brand users and non-users and between brand lovers and brand haters. The reason that brand personality is important to building strong brands lies in emotional aspects which are able to distinguish and differentiate a brand from the competition (Freling & Forbes, 2005a); it brings an originally-without-a-soul object to life. Research has shown that, by doing this, brand personality provides consumers with emotional fulfillment, thereby increasing purchase probability (Freling & Forbes, 2005b). However, it is unknown how consumers with strong emotions derived from brand experience, such as love versus hate, perceive brand personality.

Lastly, future research could investigate other potential personality inventories that may be applied to brands. Although the current study has shown that consumer personality and brand personality were measureable by the same items, the purified scale was half of the original scale. This outcome may have resulted from the fact that the personality inventory (the Saucier's (1994) mini-markers) has never been purified by CFA. While the Big Five framework is one of the most important frameworks in measuring personality, this study does not claim that it is the only or the best framework for consumer and brand personalities; thus other inventories might be examined.

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Table 1: Definition of the Big Five Human Personality dimensions.

Definitions of the Big Five Human Personality Dimensions
Extraversion A tendency to seek for stimulation in life and enjoy activities in groups
Agreeableness An interpersonal tendency that describes altruisticity
Conscientiousness A tendency to be self-disciplined (or the control of impulses)
Neuroticism A tendency to be emotionally unstable
Openness to new experience A tendency to be open-minded to new ideas
NB: The definitions are extracted from Costa and McCrae (1992, p.14-16), but the meanings have been researched, discussed and refined since Allport and Odbert's (1936) research. A detailed account of the evolution of the Big Five is reviewed by John (1990) and John and Srivastava (1999).

Table 2: A comparison of brand and human personality structures

Sources	Dimensions of Personality	Similar dimensions between brand and human personalities*
Human Personality		
The Big Five John (1990) and John & Srivastava (1999)	1. Extraversion 2. Conscientiousness 3. Agreeableness 4. Neuroticism 5. Openness to new experience	
Brand Personality		
Aaker (1997) U.S.A./consumer brands	1. Excitement 2. Competence 3. Sincerity 4. Sophistication 5. Ruggedness	Excitement (extraversion) Competence (conscientiousness) Sincerity (agreeableness)
Aaker et al. (2001)		
Japan/consumer brands	1. Excitement 2. Competence 3. Sincerity 4. Sophistication 5. Peacefulness	Excitement (extraversion) Competence (conscientiousness) Sincerity (agreeableness)
Spain/consumer brands	1. Excitement 2. Sincerity 3. Sophistication 4. Peacefulness 5. Passion	Excitement (extraversion) Sincerity (agreeableness)
Caparar et al. (2001) Italy/consumer brands	1. Extraversion 2. Agreeableness	Caparar et al.'s study found two distinct factors, but they also encompass the traits of other factors. Extraversion includes extraversion, conscientiousness, and openness to experience; agreeableness includes agreeableness and neuroticism.
d'Astous and Levesque (2003) Canada/supermarkets	1. Enthusiasm 2. Genuineness 3. Unpleasantness 4. Sophistication 5. Solidity	Enthusiasm (extraversion) Genuineness (agreeableness) Solidity (conscientiousness)
Sung and Tinkham (2005)		
U.S.A./consumer brands	1. Likeableness 2. Trendiness 3. Competence 4. Sophistication 5. Traditionalism 6. Ruggedness 7. White Collar 8. Androgyny	Likeableness (agreeableness) Trendiness (openness to new experience) Competence (conscientiousness)
Korea/consumer brands	1. Likeableness 2. Trendiness 3. Competence 4. Sophistication 5. Traditionalism 6. Ruggedness 7. Passive likeableness 8. Ascendancy	Likeableness (agreeableness) Trendiness (openness to new experience) Competence (conscientiousness)
Venable et al. (2005) Not-for-profit Organization	1. Integrity 2. Ruggedness 3. Sophistication 4. Nurturance	Integrity (conscientiousness)

* The researchers of these studies tend to label their factors slightly different from the Big Five factors, but they suggested the designation of brand personality to its corresponding human personality. Their suggestions were examined by the authors of the current study through inspections of measurement items.

Table 3: Analysis of the adjectives used by the informants

The Big Five Dimensions	**Adjectives used by the informants**
Extraversion	(+) loud; striking; noticeable; outgoing; active; flashy; exciting; social; funny; cool; interesting (-) dull; frumpy; geeky
Agreeableness	(+) caring; friendly; jolly; nice; approachable; well-rounded; considerate; supportive; warm; welcoming; natural; pretentious; unpretentious; genuine; honest (-) arrogant; narcissistic; serious; formal; aloof; intimidating; violent; selfish; uppity
Conscientiousness	(+) professional; efficient; practical; reliable; trustworthy; hard-working; confident; ambitious; successful
Neuroticism	(+) mysterious; changeable; stressful; temperamental; with a few tantrums; chavy (-) easy going; laid back; relaxed; steady; predicable; stable
Openness to experience	(+) creative; intelligent; dynamic; exceptional; different; open-minded; open to new ideas; flexible; inventive (-) traditional; reserved; old school; not much development
Others*	Group 1: soft; feminine; neutral (not too feminine); muscular; strong Group 2: French; Australian; Californian Group 3: well-off; rich; posh; upper class; public school Group 4: trendy; trampy; stylish; slutty; modern; new Group 5: good looking; fat; cute; old; young

*'Others' shows that the informants used other adjectives than the Big Five to describe their brands. These adjectives can be categorized into five groups. Group1 refers to additional personality traits, but group 2-5 includes demographic backgrounds, appearances, and ways of dress.

Table 4 A comparison of EFA results between consumer personality and brand personality

	Consumer Personality					Brand Personality				
	1	2	3	4	5	1	2	3	4	5
Quiet(R)	.822					.799				
Extraverted	.793					.806				
Shy(R)	.762					.786				
Talkative	.722					711				
Withdrawn(R)	.689					.732				
Bold	.637					.775				
Energetic	.523					.727				
Bashful(R)						.644				
Efficient		.818					.838			
Organized		.812					.778			
Disorganized(R)		.808					.751			
Inefficient(R)		.750					.678		.	
Systematic		.709					.836			
Sloppy(R)		.708					.626			
Careless(R)		.510					.597			
Practical							.609			
Unsympathetic(R)			.762					.677		
Warm			.734					.786		
Kind			.719					.818		
Sympathetic			.694					.726		
Cold(R)			.655					.663		
Harsh(R)			.619					.560		
Rude(R)			.564					.557		
Cooperative								.556		
Jealous				.737					-.747	
Envious				.691					-.767	
Temperamental				.684					-.734	
Moody				.670					-.697	
Touchy				.562					-.641	
Unenvious(R)				.535						
Fretful				.531					-.625	
Relaxed (R)										
Imaginative					.714	.				.648
Creative					.702	.				.601
Uncreative (R)					.658					.585
Unintellectual(R)					.628					.569
Philosophical					.627					.715
Intellectual					.553					.716
Complex					.573					.677
Deep					.586					.712

(R) = reverse-coded
Extraction Method: Principal Component analysis with Varimax rotation
Factor 1: Extraversion; Factor 2: Conscientiousness; Factor 3: Agreeableness; Factor 4: Neuroticism; Factor 5: Openness to experience
KMOs, measuring of sampling adequacy for both brand personality and human personality, are higher than satisfactory (.88 for brand personality and .81 for human personality).
Average variance extracted: .49 (human personality) and .57 (brand personality)
Factor loadings are displayed if exceeding .50

Table 5 CFA results for personality

	Standardized Factor Loadings	T-values[1]	R-Squared[2]	Composite Reliability	AVE	Cronbach's α (Cronbach's α with the original items)
Extraversion				.82	.53	.82
Extraverted	.68	-	.46			(.84)
Shy$^{(R)}$	.77	13.79	.59			
Quiet$^{(R)}$	.84	14.31	.71			
Withdrawn$^{(R)}$	.61	11.49	.38			
Agreeableness				.79	.49	.77
Sympathetic	.60	-	.36			(.83)
Warm	.81	12.12	.65			
Kind	.83	12.15	.69			
Cooperative	.50	8.87	.25			
Conscientiousness				.83	.55	.82
Organized	.68	-				(.86)
Efficient	.90	15.30	.82			
Systematic	.60	11.75	.36			
Inefficient$^{(R)}$	.75	14.20	.56			
Neuroticism				.75	.51	.73
Jealous	.86	-	.75			(.78)
Temperamental	.49	8.81	.24			
Envious	.74	10.42	.54			
Openness to experience				.84	.58	.82
Creative	.86	-				(.80)
Imaginative	.79	19.25	.62			
Uncreative$^{(R)}$	.86	20.98	.74			
Unintellectual	.45	9.75	.21			

1. The first variable of each dimension was a reference variable; therefore, t-values can not be calculated for those variables.
2. R-Squared is also termed squared multiple correlation.

(R) = reverse-coded

Model fit indices: χ^2=404.02, df=142, p<.01; SRMR=.063; RMSEA=.063; TLI=.92; CFI=.94

Table 6 CFA results for brand personality

	Standardized Factor Loadings	T-values[1]	R-Squared[2]	Composite Reliability	AVE	Cronbach's α (Cronbach's α with the original items)
Extraversion				.85	.59	.85
Extraverted	.65	-	.42			(.90)
Quiet(R)	.83	14.25	.68			
Shy(R)	.84	14.34	.70			
Withdrawn(R)	.76	13.41	.57			
Agreeableness				.85	.60	.85
Sympathetic	.71	-	.51			(.88)
Warm	.76	15.22	.58			
Kind	.89	16.97	.80			
Cooperative	.71	14.15	.50			
Conscientiousness				.87	.64	.86
Organized	.79	-	.63			(.90)
Efficient	.91	21.66	.82			
Systematic	.88	21.10	.77			
Inefficient(R)	.57	12.43	.32			
Neuroticism				.83	.62	.83
Jealous	.83	-	.69			(.79)
Temperamental	.69	14.68	.48			
Envious	.83	16.38	.68			
Openness to experience				.81	.52	.80
Creative	.85	-	.73			(.83)
Imaginative	.81	17.75	.65			
Uncreative(R)	.70	15.42	.49			
Unintellectual	.47	9.95	.22			

1. The first variable of each dimension was a reference variable; therefore, t-values could not be calculated for those variables.
2. R-Squared is also termed squared multiple correlation.

(R) = reversed-coded

Model fit indices: χ^2=717.47, df=142, p<.01; SRMR=.088; RMSEA=.093, 90% C.I.: [.86, 1.00]; TLI=.90; CFI=.92

Table 7 Correlation matrix of brand personality and consumer personality

	BP1	**BP2**	**BP3**	**BP4**	**BP5**	**HP1**	**HP2**	**HP3**	**HP4**	**HP5**
BP1	*3.77 (.84)*									
BP2	-.18**	*3.38 (.87)*								
BP3	-.07	.38**	*3.67 (.90)*							
BP4	-.11*	-.33**	-.22**	*2.32 (.90)*						
BP5	.43**	.17**	.13**	-.26**	*3.68 (.85)*					
HP1	.20**	-.01	.01	-.04	.13*	*3.39 (.81)*				
HP2	.15**	.35**	.15**	-.23**	.19**	.08	*3.93 (.57)*			
HP3	.13*	.05	.12*	-.08	.09	.02	.11*	*3.67 (.76)*		
HP4	-.02	-.08	-.03	-.37**	-.06	-.04	-.13*	-.08	*2.59 (.80)*	
HP5	.09	.07	.05	-.11*	.24**	.16**	.18**	-.04	-.21**	*3.76 (.77)*

BP1: extraversion (brand personality); BP2: agreeableness (brand personality); BP3: conscientiousness (brand personality); BP4: neuroticism (brand personality); BP5: openness to experience (brand personality; HP1: extraversion (human personality); HP2: agreeableness (human personality); HP3: conscientiousness (human personality); HP4: neuroticism (human personality); HP5: openness to experience (human personality)

The figures in the diagonal are means and standard deviations are in brackets

* t-value > 1.96 or < -1.96, $p<.05$ (2-tailed)

** t-value > 2.58 or < -2.58, $p<.01$ (2-tailed)

Figure 1 Conceptual framework

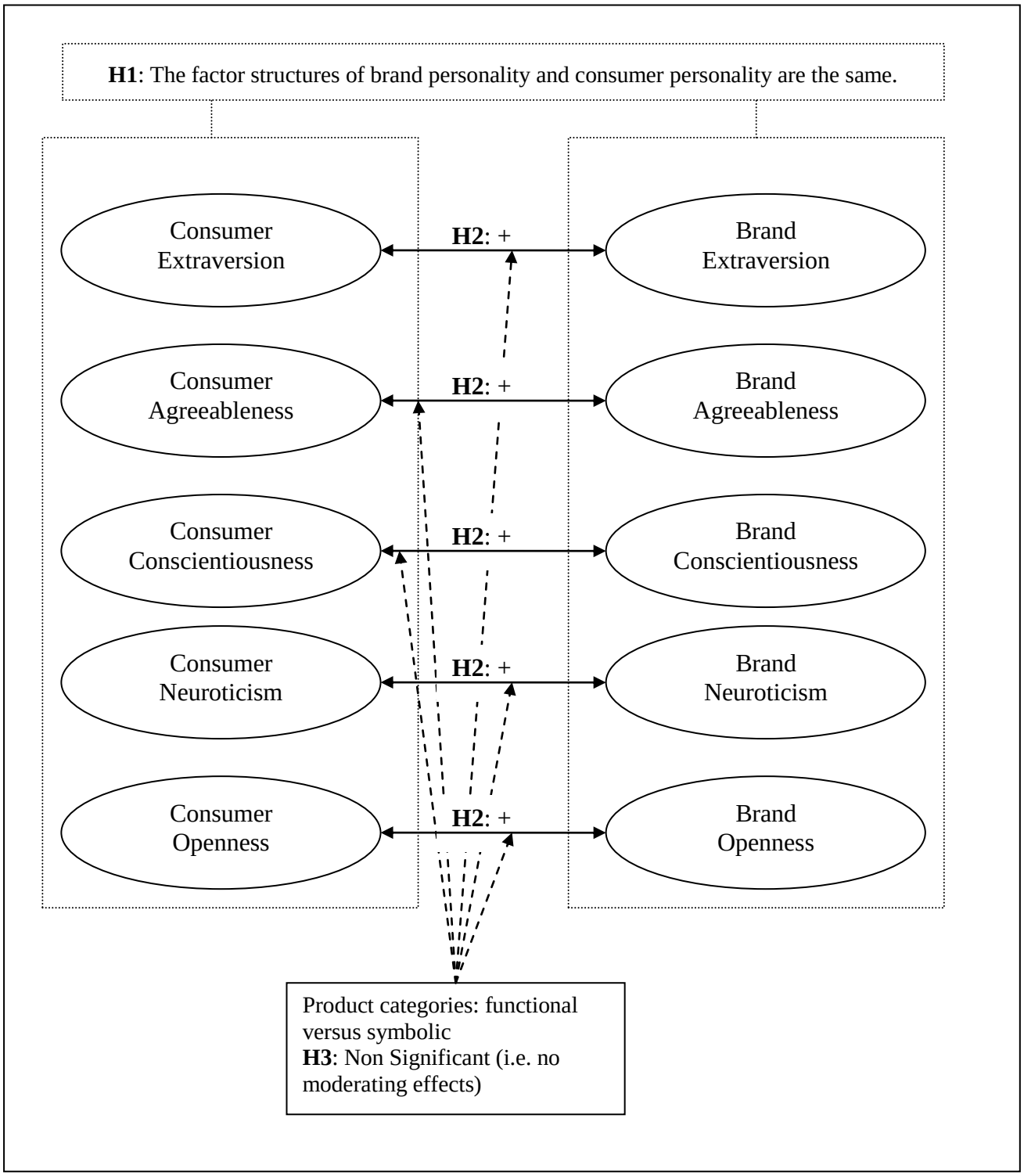
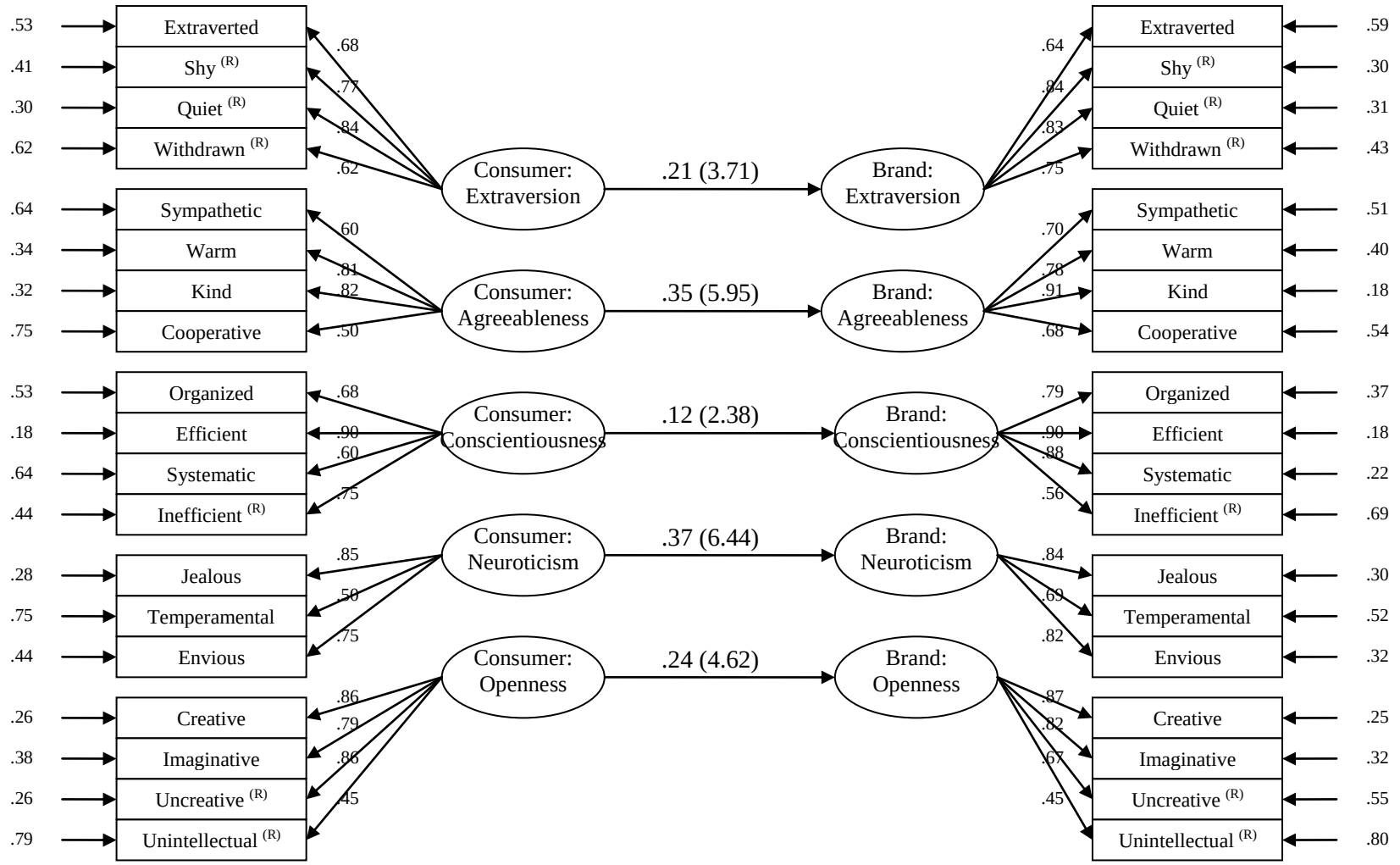


Figure 2 SEM model of the relationship between consumer personality and brand personality



NB1: t-values are stated in brackets (t>1.65 or <-1.65, p<.05; t>2.33 or <-2.33, p<.01; 1-tailed).

NB2: Model fit indices – Chi-square=1891.30, df=650, p<.01; SRMR=.10; RMSEA= .064, 90% C.I.: [.061, .067]; TLI=.90; CFI=.91

NB3: The single-directional arrows in the structural model reflect the limitation of testing non-recursive models in SEMs (Baumgartner & Homburg, 1996), not causality. The hypotheses argue that the relationships are bi-directional.