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**Congruence between consumer, brand and store personality in luxury
sector: the results of an international research**

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ABSTRACT

Objectives. The paper analyses the phenomena of congruence between consumer, brand and store personality and its effect on attachment to brands in luxury sector at an international level.

Methodology. From a theoretical point of view, human personality, brand personality and store personality research streams are considered. The paper takes into account relevant theoretical contributions developed on congruence between consumer, brand and store personality. Then the attachment construct is considered. From an empirical point of view, the paper presents the results of a quantitative primary research run on a sample young people “luxury experienced” from Western Europe (France, Germany, Italy, UK). The empirical research considers specifically 6 luxury brands.

Results and conclusions: This paper presents the validation of the personality congruence measurement scale proposed by the authors; furthermore the research highlights the existence of a correlation between personality congruence and brand attachment discovering at the same time specific country peculiarities.

Key words: Consumer personality, brand personality, store personality, congruence, personality scale, luxury, young people

1. Introduction

The construct of “personality” has been theoretically studied and empirically observed since a long time; however, according to our knowledge, marketing scholars have not yet deeply investigated the phenomena of “congruence between human, brand and store personality”. Our work try to bring new insights within this conceptual area proposing a method to measure this triple congruence and starting to discover what happens when it exists.

As a starting point we decided to address our attention to the luxury sector for analyzing the personality congruence in this specific environment and measuring the impact of this congruence on the attachment towards brands. So the specific question of this research concerns the relationship that can be established between consumers and luxury brands. We want to know to what extent a consumer focuses its preferences toward brands and stores he/she perceives as similar or complementary. We assume in fact the brand and store characteristics can be seen similar or complementary to those an individual perceives of himself (Helgeson and Supphelen, 2004; Kressmann *et al.*, 2006; Malär *et al.*, 2011).

For this reason the paper considers several scientific contributions related to human personality, brand personality, store personality and the theoretical stream developed on congruence construct. Anyway our research is based on a theoretical approach that places brands and stores at the center of the consumer decision-making process. Then the specific contribution of this study is to test and validate the personality congruence measurement scale here proposed and highlights the existence of a correlation between personality congruence and brand attachment trying to discover early country peculiarities.

2. Human-consumer personality

As known in the last two decades there has been a growing interest and acceptance (Harvey, Murry, Markham 1995) of the so called Big Five view of the structure of personality (Cortina, Doherty, Schmitt, Kaufman, & Smith, 1992; Digman, 1990; Hogan & Hogan, 1992; McCrae & Costa, 1987; Schmit & Ryan, 1993). According to the Big Five taxonomy, the dimensions of human personality are Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experience. In addition to being considered as merely descriptive dimensions (Schmitt *et al.* 2006) the Big Five traits have also been viewed as causal dispositions within a framework called the Five-Factor Model (FFM) of personality (Costa & McCrae, 1992). The FFM hypothesizes each of the major dimensions of

personality in a marginally dissimilar way than does the Big Five, with each of the five broad dimensions composed of particular personality facets or sub-traits. Anyway, according to Schmitt et al (2006), the most comprehensive instrument designed to measure the Big Five or FFM is the Revised NEO Personality Inventory (NEO-PI-R; Costa & McCrae, 1992, Costa & McCrae 1995). In every culture and language that has been studied (McCrae, 2001, 2002; McCrae & Costa 2005), the trait scales of the NEO-PI-R have shown satisfactory levels of internal reliability, and the NEO-PI-R structure of factors has been evaluated robust.

3. Brand personality

At the same time the attribution of human characteristics to inanimate objects appears to be an universal phenomenon (Brown, 1991). This process is very interesting both for marketing academics and managers because the comprehension on how human perceive products, brands, stores in terms of human features impacts on the planning and execution of marketing operations.

Aaker (1997, p. 347) defines brand personality as “the set of human characteristics associated with a brand”. The term “characteristics”, however, makes this definition too broad and vague. It could potentially lead, at the time of measurement step, to include specific items, not appearing in any measurement scale of the human personality (Ferrandi et al., 2003). Ambroise et al. (2003) therefore propose to define the brand personality as “all human personality traits associated with a brand”. It is relevant to consider Aaker developed this theoretical framework taking into account the Big Five human personality dimensions. As known Aaker proposes a measurement scale of brand personality based on 5 dimensions (Sincerity, Excitement, Competence, Sophistication, and Ruggedness), and 42 traits.

Anyway Aaker’s scale overlaps sender and receiver items, and relies on several identity concepts (Geuens, Weijters, De Wulf 2008). For example, the brand as a person concept developed in Aaker and Joachimsthaler’s model (2000) is combined with the brand as a product and the brand as a symbol concepts. With regards to Keller’s proposition (Keller, 2008), brand personality joins with user profiles’ aspects. Finally taking into account Kapferer’s identity prism (Kapferer, 2008), Aaker’s scale relates to inner values such as culture, physical traits such as physique, and typical user characteristics that is to say reflection (Azoulay & Kapferer, 2003).

Aaker’s scale has been used in a large number of studies about consumer behavior (e.g. Okazaki, 2006; Supphellen and Grønhaug, 2003; Venable et al., 2003 Maehle, Shneor 2010). Recently Heine (2009; 2010) has focused the attention on Luxury Brand Personality Dimensions. The results of this study

suggest that consumers perceive luxury brands through five distinct personality dimensions: modernity, eccentricity, opulence, elitism and strength.

4. Store personality

Long before Aaker, Pierre Martineau proposed the idea that stores have a personality, that he states as “the way in which the store is defined in the shopper’s mind, partly by its functional qualities and partly by an aura of psychological attributes” (Martineau, 1958, p. 47). He identifies several aspects, named personality factors, as latent causes for the creation of a store personality: layout and architecture, symbols and colors, advertising, and sales personnel. Even if Martineau uses the term store personality his interest is definitely more focused on the store image concept. Since this contribution the scholarly interest in the concept of store personality has been rather scarce. According to Garton (1995, p. 30) the main reason could be that “many of the results in store personality studies have been too general to be of use to retail managers”. Anyway in 2003 d'Astous and Levesque proposed a specific scale to measure store personality. At the end of the scale purification process, 34 personality terms remained, summarized in 5 factors named sophistication, solidity, genuineness, enthusiasm and unpleasantness.

To our knowledge, with a certain level of pertinence to luxury sector, there has been only two main operationalization focused on fashion store personality: the exploratory study by Helgeson and Supphellen (2004) and the definition of “fashion store personality” scale by Willems et al. (2011) based on 36 personality traits splitted in the five factors (chaos, sophistication, innovativeness, agreeableness, and conspicuousness).

5. Congruence between human, brand and store personality

In this section the topic of congruence between human, brand and store personality is considered. For this purpose the stream of research focused on consumer self/image is taken into account as a theoretical framework. Levy (1959) asserts the output a consumer buys have personal and social meaning capable to strengthen the way the consumer contemplates himself. Brands perform their role as social congruity mean between brand and user self-image, that is considered as a significant motivational element in consumer choice (Belk, 1988; Sirgy, 1982). Many researches prove there is congruity between brand image/personality and human personality (see Maehle, Shneor 2010). For example, Vitz and Johnston (1965) observe the existence of an association between smokers’ perceptions of cigarette features and the smokers ’masculinity or femininity. In the same direction

Dolich (1969) analyzes the bonds between self-image and brand preference discovering the preferred brands are consistent to self-concept and strengthen it. At the same time Hamm and Cundiff (1969) detect a liaison between ideal self-image and product image. On his side Belk (1988) states that belongings are not just “things” people own but self-concept extensions. Einwiller et al (2006, p. 192) describe the emotional part of customer–company identification as follows: “Strong identification occurs when a company becomes personally relevant for consumers, and personal relevance creates the potential for emotional reactions.” Similarly Homburg and colleagues (2009) present a conceptual framework in which customer–company identification predicts customer loyalty toward a company.

Similarity and complementarity have obviously been widely discussed in psychosociology in the field of interpersonal attraction (Byrne, 1971) whose balance theories (or cognitive consistency) and self-enhancement are parties. From this perspective, the individual seeks to strengthen or improve self-esteem and minimizing inconsistent affective states (Festinger, 1954, 1957 and Griffitt Byrne, 1973). These balance theories and self-image enhancement provided the conceptual foundations for research on the congruence between self-concept and different variables in consumer behavior. These include works linking self-concept and intention to purchase products (Landon, 1974; Belch et Landon, 1977; Sirgy, 1985); self-concept and advertising effectiveness (Zinkhan et Hong, 1991; Shavitt et al., 1992; Hong et Zinkhan, 1995; Metha, 1999); self-concept and store traffic (Dornoff et Latham, 1972; Stern et al., 1977; Manrai et Manrai, 1995). However, the largest stream of research was interested in the relationship between self-image and brand (Jacobson et Kossoff, 1963; Grupp et Grathwohl, 1967; Birdwell, 1968; Grupp et Hupp, 1968; Grupp et Stern, 1968; Dolich, 1969; Ross, 1971; Sirgy, 1981), especially when these brands are socially visible (Solomon, 1983; Leigh et Gabel, 1992; Kleine et al., 1993). Some scholars were also interested in the relationship between consumer and point of sale (d’Astous et al., 2002, Ambroise et al., 2003; d’Astous and Lévesque, 2003; Vernet, 2003).

The congruence is based on a vision of objects associated to meanings by consumers. For Fleck and Maille (2010), if the literature about congruence has been enriched by the variety of work that has been devoted to this concept, it suffers from numerous conceptual and empirical discrepancies that prevent any final conclusion on its effects. The first studies on this phenomenon of perceived congruence see it as a structural correspondence between two entities (Mandler, 1982). Self-congruity is defined as the similarity between the symbolic attributes of the labeled product and self-concept of the individual (Munson and Spivey, 1981 ; Sirgy, 1982, 1986). The measure of congruence between individual and brand has taken two main directions (Kressmann et al., 2006). The traditional method for measuring congruence is differential. Although limits of predictive validity of these measures have been reported, we will hold it at first. We then supplemented by those from a line of research aims to develop global

and direct measurement (Sirgy et al., 1997). To our knowledge no research has been conducted on the congruence consumer/brand/store in the specific case of luxury brands. Therefore, we wanted to maintain in parallel the two types of measurement (direct and differential).

To our knowledge, only few research dissociate conceptually and empirically congruence through the self-image and brand personality (Supphellen and Helgeson, 2004). And even if this work conclude that significant differences exist, they have not been subjected to enough replications to be generalized (Rosenthal and Rosnow, 1984). Therefore, we chose to directly measure personality congruence between consumer, brand and store basing this process on the self/image literature.

6. Brand attachment

Attachment is a vital human need (Ortha et al 2010) and according to Bowlby (1979) is defined by an emotion-laden, target-specific relationship between a person and a target. Consumers can be intensely committed or lightly linked to a brand (Thomson, MacInnis, and Park, 2005). Potential causes of differing attachments are consumer and brand features (Robins et al., 2000) such as personality traits. Even if the academia has mainly examined attachment in interpersonal contexts, research in marketing field asserts that consumers can also develop attachments to marketplace entities, such as product, brands, store (Fournier 1998; Keller 2003; Schouten and McAlexander 1995), celebrities (Thomson 2006), and special belongings (Ball and Tasaki 1992; Kleine and Baker 2004). Although the growing interest on the attachment construct, the conceptual properties of this persists vague (Park, MacInnis, and Priester 2006, 2009).

Park et al (2010) define “brand attachment” as the strength of the bond connecting the brand with the self. This bond is represented by a rich and reachable mental representation that involves thoughts and feelings regarding the brand and the brand’s connection to the self (Mikulincer and Shaver 2007). The possible attachment consequences could consist of loyalty and willingness to pay a premium price for the brand (Thomson et al., 2005). It is clear the interest for brands to create a strong and lasting emotional bond with consumers. So brand attachment can be finally considered as “a psychological variable that refers to a long lasting and inalterable (the separation is painful) affective reaction towards the brand, expressing psychological proximity with this one” (Lacoeuilhe, 2000).

7. Methodology

Research methodology. This study is a working in progress output of a wider international research project about luxury sector; the main tasks of this step of the research is the validation of the personality congruence measurement scale and the identification and the measurement of the eventual causal relationship between “congruence” and “brand attachment” for luxury goods. The research group is composed by scholars from 12 countries (Italy, France, Germany, United-Kingdom, Japan, Russia, Brazil, China, South Korea, India, Australia, and the USA).

Personality congruence measurement scale. In a previous step of this international research project (Authors, 2012), a specific measurement scale of personality congruence was built and tested on a sample of 160 respondents (young people from Italy, France, Germany and India). This scale originally including 134 items for each measurement (Brand/Store/Human personalities) was reduced to 5 dimensions (Prestige/Emotion/Trust/Anxiety/Order) and 13 items (Upper-class, Prestigious, High priced, Upscale, Happy, Enthusiastic, Feelings, Trust, Trustworthy, Anxious, Vulnerable to stress, Well-organized, Orderly) through a principal component factor analysis with Varimax rotation (Authors, 2012). The measurement scale of personality congruence based on 134 items was built retaining five personality scales:

- Consumer personality scale:
 - Human personality NEO-PI-R (30 traits) McCrae and Costa (1995, 2005)
- Brand personality scales:
 - Brand personality (42 traits) Aaker (1997)
 - Adapted Aaker’s brand personality scale, (42 traits) Chan et al. (2003)
 - Luxury brand personality (31 traits) Heine (2008, 2009)
- Store personality scale:
 - Store personality (34 traits) d’Astous and Lévesque (2003)

These scales were chosen because of their particular interest in our research field and of their complementarities. As already stated the measurement scales designed by McCrae and Costa (1995, 2005) for the human personality and by Aaker (1997) for the brand have been subjected to many replications in different countries. As we are in a perspective of cross-cultural comparisons, both these scales have been selected. The scale developed by Heine (2009) deals with luxury brands. It is therefore directly in our research area. The d’Astous and Lévesque’s scale (2003) is a reference in the store personality measurement. In this current study the 13 items (Upper-class, Prestigious, High

priced, Upscale, Happy, Enthusiastic, Feelings, Trust, Trustworthy, Anxious, Vulnerable to stress, Well-organized, Orderly) were used..

An on-line structured questionnaire was built. All items under analysis were rated on a five-point Likert scale (with the minimum value given to 1 and the maximum value attributed to 5). The process of questionnaire development was based on the approach recommended by Churchill and Iacobucci (2002). The first version of the questionnaire was face-validated twice using exploratory and expert interviews and pre-tested with 40 respondents. For establishing the translation equivalence a verbal translation committee approach was adopted (Craig Douglas 2005; Harkness, 2003). To analyze the brand personality perceived by the respondents non-verbal stimuli (one logo picture, four iconic products picture for each brand) were used (Troiano, Costa, Guardado 2002); to analyze the store personality perceived by the respondents other non-verbal stimuli (four store pictures for each store) were used. Brand and store non-verbal stimuli were selected after a pre-screenings of more than 40 pictures for each luxury company under analysis; the pre-screening was run on a sample and through the collection of luxury experts opinions. Specifically the questionnaire analyzed the brand personality perceived by the respondents through the following question:

“For the brand that you selected, you will be shown images of the brand logo and its iconic products and will be asked about your impression of the brand. To understand your impression of the brand, I would like you to think of a brand as if it were a person. If I asked you to give me your impression of a particular person, you might answer with a set of personality characteristics. Now, let’s think about a brand in the same way. This may sound unusual, but think of the set of personality characteristics associated with the brand. Now imagine that the luxury brand is a person. Assuming that the brand were a person, please rate the extent to which each trait describes its personality (1 = Not at all; 2 = Just a little; 3 = A fair amount; 4 = Much; 5 = Very much). Traits: Upper-class, Prestigious, High priced, Upscale, Happy, Enthusiastic, Feelings, Trust, Trustworthy, Anxious, Vulnerable to stress, Well-organized, Orderly.”

In the same way the questionnaire analyzed the store personality perceived by the respondents through the following question:

“Please look at the store pictures of the selected brand. Now imagine again that the luxury store is a person. Assuming that the store were a person, please rate the extent to which each trait (adjective or and noun) describes its personality (1 = Not at all; 2 = Just a little; 3 = A fair amount; 4 = Much; 5 = Very much). Traits: Upper-class, Prestigious, High priced, Upscale, Happy, Enthusiastic, Feelings, Trust, Trustworthy, Anxious, Vulnerable to stress, Well-organized, Orderly.”

Finally the respondents were asked to consider the self perception of their personality in this way:

“Now concentrate your attention on yourself. How much do the following traits express your personality (personality self perception)? (1 = Not at all; 2 = Just a little; 3 = A fair amount; 4 = Much; 5 = Very much). Traits: Upper-class, Prestigious, High priced, Upscale, Happy, Enthusiastic, Feelings, Trust, Trustworthy, Anxious, Vulnerable to stress, Well-organized, Orderly.”

To measure congruence between the perception that the individual has of himself and his perception on brand and store personality, we calculate a distance representative of this congruence. The

congruence score is of the form: $\sum_{i=1}^n |PerB_i - PerC_i| + |PerS_i - PerC_i|$, where $PerB_i$ measures the score on the items of brand personality, $PerS_i$ on the items of store personality and $PerC_i$ on the items of individual personality and, where $|PerB_i - PerC_i|$ measures the distance between brand personality and consumer personality and $|PerS_i - PerC_i|$ the distance between store personality and consumer

personality. Finally, we get: $Congr_{i=1}^n = \frac{\sum_{i=1}^n |PerB_i - PerC_i| + |PerS_i - PerC_i|}{2}$ which represents a mean of the two various types of congruences. The scores then have been reversed so that the smallest distances are ones which get the highest scores. This classical form of measurement, although criticized (Sirgy et al. 1997; Supphelen and Helgeson, 2004; Kressmann et al., 2006), has been widely used in work on the image congruence (Sirgy and Danes, 1981) and continues to be (Vermette, 2003, 2008). From this first calculation, we performed a factor analysis to replicate the measurement scale developed in the first step of our research program (Authors, 2012); considering the main tasks of the current study, first the measurement scale structure was validated. To do this, exploratory¹ and confirmatory² factor analysis was run.

Causal relationship between “congruence” and “brand attachment” for luxury goods. The identification and the measurement of the eventual causal relationship between “congruence” and “brand attachment” for luxury goods will be tested. To do this the Lacoeuilhe (2010) attachment scale was used. Respondents were asked to answer the following questions:

“How much do you feel the following sensations toward the selected brand? (1 = Not at all; 2 = Just a little; 3 = A fair amount; 4 = Much; 5 = Very much): a. I like this brand; b. Purchasing this brand is very pleasurable for me; c. I feel comfortable buying or owning this brand; d. I am deeply attached to this brand; e. I am very attracted to this brand”.

¹ With exploratory factor analysis, we are trying to identify underlying variables that explain the origin of correlations within all of our observed variables.

² Confirmatory factor analysis aims to validate *a posteriori* the structure of a measurement scale. It relies on a reverse process of exploratory factor analysis in that it is data that will confirm the factors. It also provides additional goodness-of-fit statistics of the model to the data in order to judge the likelihood of the model (Hu and Bentler, 1999). It also allows the calculation of indicators for measuring reliability and validity. The estimation method most commonly used in structural analysis is maximum likelihood (ML) which tolerates moderate violations of multi-normality.

Then, the causal relationship model between “congruence” and “brand attachment” for luxury goods was tested. For this purpose a structural equation model linking the “personality congruence” to “brand attachment” was used.

Sample. In this study we decided to analyze the population of young people aged 20-26 “luxury experienced” that is to say a population of young that has already bought one or more luxury goods and that is informed about the luxury world. Actually we consider young people very interesting in term of research results for luxury firms management that look at this population as actual customers but mostly as their forthcoming customer base.

The empirical research considers specifically 6 luxury brands i.e. Louis Vuitton, Gucci, Hermes, Armani, Burberry and Salvatore Ferragamo; all these brands, with the exclusion of Salvatore Ferragamo (useful as control research phenomena) were selected because of their high rank in 2011 Interbrand list. This phase of the research is limited to Western Europe countries only (France, Germany, Italy, UK) characterized by the presence of established luxury brands. At a later stage, the other countries of our research network will be integrated in order to draw comparisons between geographical areas and between developed and developing countries.

A convenience sample of young people was built using the following screening variables:

- age: 20-26 (extremes included);
- luxury purchase experience: one or more luxury goods (including luxury accessories such as sun-glasses, belt, perfume, etc.) bought during the last 3 years and a half (2012-2009);
- luxury brands knowledge: at least 4 luxury brands out of the 6 under analysis.

Income and other demographic and geographic variables were measured only as descriptors of the sample and not as prerequisites to select sample units.

In September 2102, a total of 254 valid and completed questionnaires were obtained. The sample is not evenly distributed across the four countries (France, Germany, Italy, UK) participating in the research; results regarding the influence of each country should be analyzed with caution. The sample was composed of 65.0% women and 35.0% men with an average age of 23 years old (Table 1). It should be noted that despite the fact that our sample is composed of young people, managerial conclusions may emerge since they are mostly luxury buyers (75.2%).

Table 1: Structure of the sample (gender and age)

	N	Gender		Age
		Female	Male	
France	38	27 (71.1%)	11 (28.9%)	22.2
Germany	40	32 (80.0%)	8 (20.0%)	23.5
Italy	97	50 (51.5%)	47 (48.5%)	23.0
UK	79	56 (70.9%)	23 (29.1%)	22.6
Total	254	165 (65.0%)	89 (35.0%)	22.8

Respondents were asked first to choose a luxury brand among the 6 proposed by the researchers and then to fill the questionnaire keeping the chosen brand in their mind (Table 2). Again, further results about brands must be taken with caution since the choice is very unevenly distributed in different countries (i.e.: Hermès and Ferragamo). The brand awareness of luxury brands among young people seems to be very different from one country to another.

Table 2: Structure of the sample (luxury brands selected in each country)

	N	Louis Vuitton	Gucci	Hermès	Giorgio Armani	Burberry	Salvatore Ferragamo
France	38	13 (34.2%)	2 (5.3%)	15 (39.5%)	3 (7.9%)	5 (13.2%)	0 (0.0%)
Germany	40	6 (15.0%)	10 (25.0%)	2 (5.0%)	13 (32.5%)	7 (17.5%)	2 (5.0%)
Italy	97	15 (15.5%)	20 (20.6%)	15 (15.5%)	14 (14.4%)	13 (13.4%)	20 (20.6%)
UK	79	20 (25.3%)	14 (17.7%)	3 (3.8%)	25 (31.6%)	14 (17.7%)	3 (3.8%)
Total	254	54 (21.3%)	46 (18.1%)	35 (13.8%)	55 (21.7%)	39 (15.4%)	25 (9.8%)

8. Main empirical results: discussion

8.1 Tests of the Personality Congruence Scale

8.1.1 Exploratory factor analysis results

On the basis of this sample, a principal component factor analysis with Varimax rotation was performed. We thus try to identify underlying variables to explain the origin of correlations within all of our observed variables. As a preliminary, tests were carried out on the suitability of the data sample for factor analysis (Table 3). To conduct a factor analysis, the KMO test must be greater than .5. This measure varies between 0 and 1, and values closer to 1 are better. A value of .6 is a suggested minimum. The Bartlett's Test of Sphericity tests the null hypothesis that the correlation matrix is an identity matrix. The Bartlett's Test must be significant. For this analysis, the two conditions are verified (KMO = 0.752 and Bartlett test $\chi^2(78)=934$, $p<0.001$). We also tested the internal reliability³ of this measure. Cronbach's alpha ($\alpha = .775$) shows good internal consistency of this measurement scale.

Table 3: Consumer, brand and store personality congruence: KMO and Bartlett's Tests

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,752
Bartlett's Test of Sphericity	Approx. Chi-Square	934,278
	df.	78
	Sig.	,000

As illustrated in Table 4, the resulting factor solution with 5 dimensions initially developed is confirmed for 71.0% of explained variance.

1. The first dimension labeled "Prestige" (4 items, 20.6% of variance explained, Cronbach's $\alpha = .832$) includes items illustrating the "upscale" and "prestigious" sides of luxury associated with its "price". This is a classic vision of luxury highlighted in research on this topic.
2. The second dimension labeled "Emotion" (3 items, 15.2%, $\alpha = .730$) shows the "emotional" part of luxury consumption which is also recognized as a major driving force for the consumption of luxury brands.
3. The third named "Trust" (2 items, 12.4%, $\alpha = .754$) corresponds to the items of reliance generated by luxury in general.
4. The fourth named "Anxiety" (2 items, 12.0%, $\alpha = .707$) marks the "stress" and "anxiety" experienced by consumers. At this point, two conflicting interpretations are possible. On the

³ The reliability or internal consistency of a measurement scale measures the degree of stability of results when applying the instrument again in identical conditions. In this phase of analysis, reliability is measured by Cronbach's α . It must be greater than .60 for exploratory research and .80 for applied research (Munnally, 1978, Peterson 1994).

one hand, this could be related to the stress felt by consumers when facing an involving decision with for example financial stakes or, conversely, to the absence of stress-related risk reduction and confidence attributed to luxury brands.

- The fifth labeled “Order” (2 items, 10.7%; $\alpha = .541$) is representative of representative of wellplanned, organized aspects (“well-organization” and “order”).

Table 4: Consumer, brand and store personality congruence: Rotated Factor Matrix^{a4a}

		Components				
		1	2	3	4	5
		Prestige	Emotion	Trust	Anxiety	Order
Congr2	Upper-class	,854				
Congr3	Prestigious	,843				
Congr1	High priced	,817				
Congr4	Upscale	,692				
Congr6	Happy		,842			
Congr7	Enthusiastic		,811			
Congr5	Feelings		,686			
Congr8	Trust			,872		
Congr9	Trustworthy			,855		
Congr11	Anxious				,877	
Congr10	Vulnerable to stress				,849	
Congr12	Well-organized					,821
Congr13	Orderly					,807

Extraction Method: Principal Axis Factoring. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 6 iterations.

8.1.2 Confirmatory factor analysis results

Confirmatory factor analysis aims to validate a posteriori the structure of a measurement scale. It relies on a reverse process of exploratory factor analysis in that it is data that will confirm the factors. It also provides additional goodness-of-fit statistics of the model to the data in order to judge the likelihood of the model (Hu and Bentler, 1999). It also allows the calculation of indicators for measuring reliability and validity. The estimation method most commonly used in structural analysis is maximum likelihood (ML) which tolerates moderate violations of multi-normality.

Confirmatory factor analysis shows a satisfactory fit of the congruence scale to its data (see Table 5).

⁴ This table contains the rotated factor loadings, which are the correlations between the variable and the factor. Because these are correlations, possible values range from -1 to +1. We used the option, which tells SPSS not to print any of the correlations that are .5 or less. This makes the output easier to read by removing the clutter of low correlations that are probably not meaningful anyway.

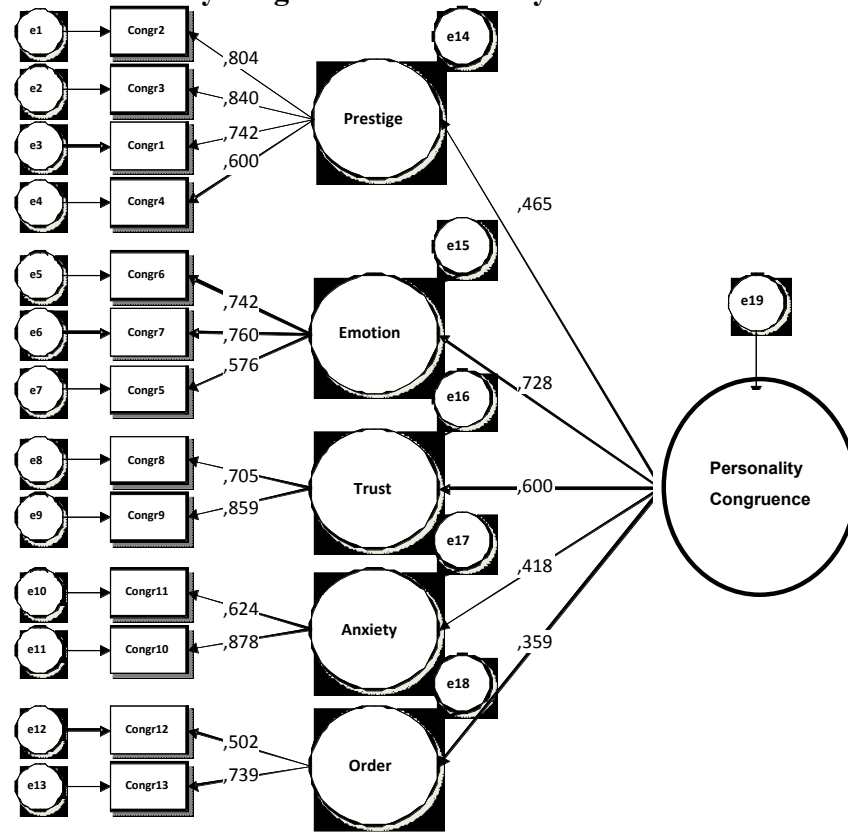
Table 5: Personality congruence with luxury brands and stores: Fit indices

Fit Indices		Suggested minimum ⁵	Value for the tested model
Absolute	Absolute fit indices determine how well an <i>a priori</i> model fits the sample data (Kaplan, 2000; McDonald & Ho, 2002)	GFI	.964
		AGFI	.946
		RMR	< .050
		RMSEA	< .050: Satisfying < .080: Tolerable
		Normed χ^2	≤ 5 and if possible ≤ 2 ou 3
Incremental	Incremental fit indices are a group of indices that do not use the chi-square in its raw form but compare the chi-square value to a baseline model (Hair et al., 1995; McDonald & Ho, 2002)	TLI	.999
		CFI	1.000
Parsimony	Parsimony-based indexes of fit take into account the complexity (ie number of estimated parameters) of the hypothesized model in the assessment of overall model fit. (James, Mulaik & Brett, 1982; Mulaik et al., 1989)	PGFI	.636

The analysis of that standardized correlation coefficients (see Figure 1) shows that what best characterizes the congruence brand/store/individual is based on "emotional aspects" perceived by consumers ($\lambda_1 = .728$). The second factor is represented by "trust" felt by consumers toward luxury ($\lambda_2 = .600$).

⁵ Steiger and Lind, 1980; Pedhazur and Pedhazur Schmelkin, 1991; Browne and Cudeck, 1993; Hu and Bentler, 1999; Tabachnik and Fidel, 2007; Steiger, 2007

Figure 1: Personality congruence with luxury brands and stores: Model



The internal consistency coefficients⁶ of the scale is measured by Jöreskog’s ρ . Convergent validity is measured using ρ_{cv} . Whilst indicators suggest a good reliability for the scale since Jöreskog’s ρ is slightly below a threshold of .70 ($\rho_{\text{Jöreskog}} = .648$), its convergent validity is well lower than the accepted standard of .50 ($\rho_{cv} = .282$).

8.2 The relationship between Personality congruence and Brand attachment

8.2.1 Structural equation model

The structural equation modeling (SEM) aims to highlight causal relationships between variables. It tests and estimates whether the correlations between latent variables correspond to significant causality taking into account the error terms. It also gives the possibility to distinguish between observed variables and latent variables. It is based on the structural analysis of covariance matrices.

A structural equation model linking the “personality congruence” to “brand attachment” is tested. The global model testing results show fit values of RMSEA (.046), GFI (.919) and normed χ^2 (1.531)

⁶ This first measure of reliability was complemented in the confirmatory factor analysis with Jöreskog’s ρ which is considered more reliable than Cronbach’s α as it is less sensitive to the number of items in the scale. In this same phase of analysis, convergent validity was measured through the ρ_{cv} which must be greater than .50.

coefficients better than commonly accepted standards and AGFI (.892) close to the accepted norms. The CFI and TLI, which compare the tested model with a model where all the manifest variables are independent of each other, are beyond the acceptable (CFI = .962 and TLI = .955). In addition, PGFI (.693) which is based upon the GFI by adjusting for loss of degrees of freedom is also up to standard. These results allow us to conclude that the model fit is good. It seems therefore possible to analyze the results of structural equation modeling.

As the model fit is acceptable, estimates of standardized regression weights coefficients and squared multiple correlations for the dependent variables can be calculated⁷.

Results highlight the existence and relative importance of the link between “Congruence” and “brand attachment” with a coefficient of determination ($R^2 = .214$) significant at the 0.1% level. This congruence model explains 21.4% of the “brand attachment” variance for the global sample. An alternative model linking “personality congruence” and “attitude toward the brand” was also tested. In that case the coefficient of determination was only $R^2 = .130$.

8.2.2 Comparisons between countries and brands

We now want to compare results country by country and brand by brand. To the extent that our samples per country are too small, it is not possible to use a procedure of multiple-group analysis with Amos. Multiple regression (D_iCongr _ Congruence) and simple linear regression (Congruence _ Brand attachment) are performed.

To compare, country by country, the weight of each dimension in the formation of congruence, a multiple regression is performed. Standardization of the coefficient (β êta) is usually done to answer the question of which of the independent variables (D_iCongr) have a greater effect on the dependent variable (Congr) in a multiple regression analysis. It is then possible to rank the dimensions according to their influence (Table 6).

⁷ The confirmatory analysis provides lambdas (λ_i) which are the standardized correlation coefficients of variables with latent variables. They are all statistically significant at the 5% significant level since the critical ratios are all above 1.96.

Table 6: Multiple regression “D_iCongr _ Congruence”: standardized coefficient (β̂eta) and country rankings

D _i Congr _ Congr	Overall		France		Germany		Italy		UK	
	D ₁ Congr: Prestige	,323	③	,358	⑤	,318	③	,360	③	,311
D ₂ Congr: Emotion	,388	①	,505	②	,376	①	,361	②	,400	②
D ₃ Congr: Trust	,360	②	,368	④	,332	②	,291	⑤	,430	①
D ₄ Congr: Anxiety	,308	④	,510	①	,172	⑤	,371	①	,225	④
D ₅ Congr: Order	,264	⑤	,404	③	,223	④	,303	④	,223	⑤
N	254		38		40		97		79	

This analysis must be conducted with caution since the samples from each country are relatively small and mostly unequal. However, it is interesting to note that, contrary to what we might think at first, there is no real common structure to countries where luxury is traditionally implemented (France, Germany, Italy and the UK). This result is interesting in itself because it justifies further study of the peculiarities of each country. Only the dimension of “emotion” seems to be common to all countries as a major one in the formation of congruence amongst consumers. However, it should be noted that “anxiety” has a very important weight in France and Italy in contrast to Germany and the United Kingdom. In contrast, “trust” is very high in these two countries. These initial results would therefore require to be replicated on a larger sample to obtain more significant data.

Finally, we conducted a comparison of standardized coefficients (β̂eta) from the “Congruence” models for each luxury brand selected by consumers (Table 7).

Table 7: Multiple regression “D_iCongr _ Congruence”: standardized coefficient (β̂eta) and luxury brand rankings

D _i Congr _ Congr	Overall		Louis Vuitton		Gucci		Hermès		Giorgio Armani		Burberry		Salvatore Ferragamo	
	D ₁ Congr: Prestige	,323	③	,321	④	,374	②	,292	④	,304	③	,290	④	,428
D ₂ Congr: Emotion	,388	①	,415	②	,384	①	,485	①	,361	①	,354	①	,451	②
D ₃ Congr: Trust	,360	②	,422	①	,314	③	,268	⑤	,357	②	,316	②	,491	①
D ₄ Congr: Anxiety	,308	④	,327	③	,298	④	,435	②	,251	④	,294	③	,350	④
D ₅ Congr: Order	,264	⑤	,263	⑤	,284	⑤	,390	③	,238	⑤	,219	⑤	,299	⑤
N	254		54		46		35		55		39		26	

As expected, the dimension “emotion” is crucial in the creation of congruence between brand/store and consumer for each of the luxury brands. This is also the case of “trust” with the only exception of Hermès.

It is interesting to note that the overall ranking of the different dimensions is the same when we analyze country by country and brand by brand, and it is at the same time different than in the factor analysis. When we make our analysis through regression, the dimensions “emotion” and “trust” occupy the first two places, when “prestige” is ranked at the third position. However, the first three dimensions we found in the factorial analysis are the same when we use regression too, even if not exactly with the same order.

If we analyze our results brand by brand, we can note some interesting points:

- “emotion” is the first dimension for 4 out of the 6 brands studied;
- “trust” is the first dimension for the remaining two brands;
- “prestige” is ranked at the second place for only one brand, and it occupies the 4th position for 3 out of the 6 brands under study;
- Three brands present a similar profile, namely Louis Vuitton, Burberry and Salvatore Ferragamo;
- Two other brands are similar, Gucci and Giorgio Armani;
- Hermès presents a profile very different from the other brands analyzed.

9. Conclusion, limitations, further developments

In this research we have applied a scale measuring personality congruence between consumer, brand, store to a sample of 254 young people from 4 countries where luxury consumption is well established. Our research fits into the research stream concerning the congruence between consumer personality and brands or store personalities, but we introduce for the first time this kind of research in the field of luxury and another major point of our work is the analysis of congruence for the three elements of brand, store and self personality.

We have measured the congruence amongst the personality of the brand, the store and the respondents and in a second phase we have measured the link between congruence, attachment and attitude towards the brands. Finally, we have compared the dimensions of personality country by country and brand by brand.

The main result of our research is that congruence of the personality of luxury brands, stores and individuals can explain at a significant level the “brand attachment”. The results are less significant for the “brand attitude”, so we have chosen not to study more in detail this second link with congruence.

Results country by country show that remarkable differences exist amongst the four developed countries we studied, even if luxury consumption is well established in all these countries.

The only common element amongst the four countries appears “emotion”, which is precisely one of the major dimensions of the marketing strategy for all the world brands. Other dimensions present strong difference in terms of importance country by country, meaning that luxury brand managers should adapt their strategies to the specificities of each country.

Results brand by brand show some similarities amongst three different brands in one hand and two others on the other hand, when one brand appears very different from all the others under analysis. In this case too, the “emotion” dimension appears as the only common element among the six brands under analysis. Interestingly, the “prestige” dimension, one of the key components of the marketing strategy of the main luxury brands, is not well ranked in our research for the six brands studied.

The results country by country and brand by brand should be analyzed with great care because the respondents sample is very different in terms of number of interviewed in each country and for each brand.

A more detailed analysis will be realized in a further step of our research using comparable and larger sample of respondents for each country.

The results of this research can be interesting for both academic and professionals:

- From the academic point of view, we have tested a purified scale of personality that can apply to luxury brands, stores and consumers; for the first time, a personality congruence study has been conducted in the luxury field.
- From the managerial point of view, we have discovered that the main dimensions explaining the personality of luxury brands and stores are the same for the four countries under analysis, but that some interesting differences remain in the relative weight of each dimension. If managers want to propose luxury products in the four European countries we have studied, the elements to underline to attract customers and to stimulate brand attachment are not the same in each country.
- The results brand by brands are also interesting from a managerial point of view, but in this case the number of respondents from each country and for each brand is too unbalanced to allow us to make any general consideration.

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