

Does image-congruence enhance the purchase of luxury brands? Early development and international comparisons of a measurement scale for consumer/brand/store image-congruence

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Introduction and objectives

The phenomenon of the attribution of human characteristics to objects is of great interest to marketing researchers and practitioners because understanding how consumers perceive products, brands, stores in terms of human attributes is likely to be useful for the elaboration and implementation of marketing actions (d'Astous et Lévesque, 2003).

According to Ferrandi *et al.* (2003), personality would improve brand positioning, differentiation, and communication of the emotional aspects associated with these brands and their consumption. In this research, we will focus on the brand personality but also store personality which can be defined as the set of human personality traits associated with the point of sale of a brand (d'Astous *et al.*, 2002).

In luxury sector, over time, the variable “distribution” has become more and more strategic. The manufacturers have taken back control of distribution, developing their own stores networks and choosing independent distributors very carefully (Moore and Birtwistle, 2005; Wigley *et al.*, 2005; Godey *et al.*, 2009). This strategic movement has given to the store-image a major importance.

Much research is available on self-image congruence which refers to the match between consumers' self-concept and the user image or personality of a given product, brand, store.... (Kressmann *et al.*, 2006).

We will try to measure the impact of an image congruence between consumer/brand/store on attachment towards a luxury brand.

Previous research has demonstrated the interest for luxury brands to create a strong and lasting emotional bond with consumers. To check the veracity of this link and whether it was shared across all the countries of our sample, we used the concept of brand attachment (Lacoeuilhe, 2000).

This paper presents the first phase of development of our measurement scale of image congruence in the luxury sector. It relies on an exploratory and confirmatory factor analysis based on four personality scales (Aaker, 1997; Heine, 2009; d'Astous and Levesque, 2003,

McCrae and Costa, 1995, 2005) in four countries of our research group (Italy, France, Germany and India).

1 Conceptual framework

1.1 Relationship between luxury brands and consumers

The central question of this research concerns the relationship that can be established between a consumer and luxury brands. We want to know to what extent a consumer focuses its preferences toward brands and stores he perceives as similar or conversely complementary. We assume in fact that the characteristics of a brand and a store can be seen as similar or complementary to those that an individual perceives of himself (Helgeson and Supphelen, 2004; Kressmann *et al.*, 2006; Malär *et al.*, 2011).

Similarity and complementarity have 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 minimize inconsistent affective states (Festinger, 1954, 1957; Byrne and Griffitt, 1973). These balance theories and self-image enhancement provided the conceptual foundations of 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 and Landon, 1977; Sirgy, 1985); self-concept and advertising effectiveness (Zinkhan and Hong, 1991; Shavitt *et al.*, 1992; Hong and Zinkhan, 1995; Metha, 1999); self-concept and store traffic (Dornoff and Latham, 1972; Stern *et al.*, 1977; Manrai and Manrai, 1995). However, the largest stream of research was interested in the relationship between self-image and brand (Jacobson and Kossoff, 1963; Grupp and Grathwohl, 1967; Birdwell, 1968; Grupp and Hupp, 1968; Grupp and Stern, 1968; Dolich, 1969; Ross, 1971; Sirgy, 1981), especially when these brands are socially visible (Solomon, 1983; Leigh and 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).

Motivations behind the acquisition of luxury brands have traditionally been reduced to the notion of “conspicuous purchase”. This idea tends to be still more or less the strategic foundation for the management of luxury brands (Dittmar, 1994; Corneo and Jeanne, 1997; Vigneron and Johnson, 1999, 2004; O'Cass and Frost, 2002). From this perspective, which has its origins in sociology and social-psychology via the Theory of Impression Management,

consumers strongly orient their behavior towards the creation of a favorable social image that they can build through their purchases (Eagly and Chaiken, 1993). Brands are then used as vectors to implement two distinct consumption strategies. On the one hand, they are the visible symbols of consumer tastes (i.e.: “social salience”) and secondly, they are regarded as icons representing certain social groups and thus help consumers to strengthen their membership of these groups (i.e.: “social identification”).

A number of researchers have enriched the traditional vision of luxury consumption (Wong and Ahuvia, 1998; Vigneron and Johnson, 1998, 2004; Tsai, 2005; Wiedmann *et al.*, 2009). In this revised paradigm, two types of luxury consumption orientation (social and personal) must be considered in the management of luxury brands. Wong and Ahuvia (1998) were the first to show that the personal orientation towards luxury brands was more important for some consumers than others. When these consumers choose a luxury brand, there are usually utilitarian, emotional and symbolic dimensions that underly their personal orientation.

Our research is based on a theoretical approach that establishes the brand at the center of the consumer decision-making process. It also takes into account the major role of outlets as a strategic element of luxury brands. It intends to further explore the relationship between perception of an image congruence of Brand/Store/Individual and attachment to luxury brands.

1.2 The perception of an image congruence with luxury brand

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 (image of the typical-user) and self-concept of the individual (Munson and Spivey, 1981; Sirgy, 1982, 1986).

The measure of congruence between individual and brand image 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).

Only few research dissociate conceptually and empirically congruence through the self-image and brand personality (Supphellen and Helgeson, 2004). And even if this work concludes that significant differences exist, it has not been subjected to enough replications to be generalized (Rosenthal and Rosnow, 1984). Therefore, we chose to use personality as a measure of image congruence.

However, as pointed out Ferrandi et al. (2003), many questions arise regarding the brand personality both in its definition and its measurement. The first question concerns the definition and conceptualization of brand personality and the specification of the construct in relation to other concepts such as brand image (Ferrandi and Valette-Florence, 2002). The next step is to ask whether the measures developed as part of the human personality can be transposed to be registered (Azoulay, 2002; Azoulay and Kapferer, 2003).

Aaker (1997, p. 347) defines brand personality as "the set of human characteristics associated with a brand." The use of "characteristics", however, makes the 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) and Ferrandi et al. (2003) therefore propose to define the brand personality as "all human personality traits associated with a brand".

In a first phase of our research, five personality scales were retained (Aaker, 1997; Chan et al., 2003; Heine, 2008, 2009; d'Astous and Levesque, 2003, McCrae and Costa, 1995, 2005).

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

These measurement scales were chosen because of their particular interest in our research field and of their complementarities. The measurement scales designed by Aaker (1997) for the brand and McCrae and Costa (1995, 2005) for the human personality have been subjected to many replications in different countries. As we are in a perspective of cross-cultural comparisons, it has 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.

2 Methodology and results

The second phase of our study was to test these scales through exploratory and confirmatory factor analysis. The objective was the reduction of the scale that originally included 134 items for each measurement (Brand/Store/Human personalities). The original scale was on-line administered to 40 students in each of the four countries included in our research group (Italy, France, Germany and India). The total number of respondents was 160, evenly distributed across the four countries participating in the research; the sample was composed of 57.8% women and 37.3% men with an average age of 25 years old (Table 1).

Table 1: Structure of the sample

	N	Gender		Age
		Female	Male	
Italy	40	21 (52.5%)	14 (35.0%)	25.4
France	40	26 (63.4%)	12 (29.3%)	27.8
Germany	40	34 (85.0%)	6 (15.0%)	25.0
India	40	12 (30.0%)	28 (70.0%)	22.8
Total	160	93 (57.8%)	60 (37.3%)	25.3

Our research group is composed by scholars from 10 countries (Italy, France, Germany, United-Kingdom, Japan, Russia, China, India, Australia, and USA), but in this phase of scale-purification the number of countries is limited. We included in this part of the research three developed countries (Italy, France, and Germany) with well established luxury brands and an emerging country (India) where the history and knowledge of luxury brands is more recent.

The objective for the inclusion of developed and developing countries is to build a new measurement scale that we can use in future research both for evaluating consumers from advanced and developing countries. Respondents were asked first to choose a luxury brand among 6 and to fill the questionnaire with keeping this brand in their mind (Table 2).

Table 2: distribution of brands selected in each country

		Louis Vuitton	Hermès	Armani	Gucci	Burberry	Salvatore Ferragamo	Total
Research Unit	Italy	7 (17.5%)	7 (17.5%)	6 (15.0%)	6 (15.0%)	7 (17.5%)	7 (17.5%)	40 (100.0%)
	France	13 (31.7%)	17 (41.5%)	2 (4.9%)	2 (4.9%)	5 (12.2%)	1 (2.5%)	40 (100.0%)
	Germany	10 (25.0%)	7 (17.5%)	6 (15.0%)	4 (10.0%)	6 (15.0%)	7 (17.5%)	40 (100.0%)
	India	11 (27.5%)	0 (0.0%)	12 (30.0%)	12 (30.0%)	5 (12.5%)	0 (0.0%)	40 (100.0%)
	Total	41 (25.5%)	31 (19.3%)	26 (19.3%)	24 (14.9%)	23 (14.3%)	16 (9.9%)	160 (100.0%)

The questions asked respondents to express their opinions and evaluations on a five-point Likert scale, with the minimum value given to 1 and the maximum value attributed to 5.

To test the research question described above, it is first necessary to validate the measurement scale structures. To do this, we will use exploratory¹ and confirmatory² factor analysis successively for “congruence” and “brand attachment” scales. Then, we will test the causal relationship model between “congruence” and “brand attachment” for luxury goods. Finally, we will compare standardized regression weights and coefficients of determination results in each of the countries of our sample to see if there are stable groups of countries according to the degree of maturity of the luxury market.

2.1 Tests of the congruence consumer/brand/store through personality

2.1.1 Measurement scale of the congruence

To measure congruence between the perception that the individual has of himself and that he projects on luxury brand and on the store, 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

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.

distance between brand personality and consumer personality and $|PerS_i - PerC_i|$ the distance between store personality and consumer personality.

Finally, we get: $Congr_{i=1}^n = \frac{\sum_{i=1}^n |PerBi - PerCi| + |PerSi - PerCi|}{2}$ 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 (Verette, 2003, 2008).

From this first calculation, we performed a factor analysis to reduce the scale to some useful dimensions.

2.1.2 Exploratory factor analysis

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. 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 = 0.750 and Bartlett test $\chi^2(630)=1728$, $p<0.001$). We also tested the internal reliability³ of this measure. Cronbach's alpha ($\alpha = .849$) showed good internal consistency of this measurement scale.

**Tableau 3: Image congruence with luxury brands and stores:
KMO and Bartlett's Tests**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,750
Bartlett's Test of Sphericity	Approx. Chi-Square	1727,858
	df.	630
	Sig.	,000

The resulting factor solution contains 36 items out of the 134 initially administered. Twelve factors have been identified for 67.2% of explained variance.

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 (1951). It must be greater than .60 for exploratory research and .80 for applied research (Nunnally, 1978, Peterson 1994).

1. The first dimension (8 items, 17.7% of variance explained, Cronbach's $\alpha = .897$) includes items illustrating the “elitist” 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 (6 items, 8.1%, $\alpha = .801$) 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 (3 items, 6.4%, $\alpha = .672$) is related to the variables of consumer choice. It includes items associated to “deliberation” and “action” that follows.
4. The fourth (3 items, 5.1%, $\alpha = .620$) corresponds to the items of “trust” generated by luxury in general.
5. The fifth (2 items, 4.6%; $\alpha = .554$) is conceptually linked to the previous one because it is a dimension grouping items "wholesome" and "genuine". Indeed, recent research shows a relationship between “authenticity” and “trust” (Gustafsson, 2002).
6. The sixth (2 items, 4.2%, $\alpha = .611$) marks the “stress” and “anxiety” experienced by consumers. At this point, two conflicting interpretations are possible. On the one hand, this could be related to the stress felt by consumers when facing an involving decision with financial stakes or, conversely, to the absence of stress-related risk reduction and confidence attributed to luxury brands.
7. The seventh (2 items, 3.7%, $\alpha = .212$) includes items measuring the superficiality of luxury.
8. The eighth (2 items, 3.6%, $\alpha = .637$) measures the uselessness and lack of need for luxury.
9. The ninth (2 items, 3.3%; $\alpha = .601$) is representative of the seriousness through the “organization” and “order”.
10. The tenth (2 items, 3.3%; $\alpha = .337$) may be interpreted as relative to the aesthetics of luxury.
11. The eleventh (2 items, 3.2%, $\alpha = .168$) is related to the uniqueness attributed to luxury.
12. Finally, the twelfth (2 items, 3.0%, $\alpha = .195$), measures aspects of “daring” and “achievement striving”. This last dimension is close to the perspective mentioned above from which consumers strongly guide their behavior towards the creation of

a positive social image that they can build through their purchases. Given their low scores for reliability (Cronbach's α), dimensions 7, 10, 11 and 12 were eliminated for further statistical processing.

**Tableau 4: Image congruence with luxury brands and stores:
Rotated Factor Matrix^{a4a}**

		Communalities	Factor											
			1	2	3	4	5	6	7	8	9	10	11	12
Congr58	High priced	.732	,823											
Congr123	Upper Class	.661	,771											
Congr57	High Class	.638	,763											
Congr43	Expensive	.636	,730											
Congr24	Costly	.680	,704											
Congr83	Prestigious	.684	,701											
Congr124	Upscale	.658	,646											
Congr35	Elitist	.641	,612											
Congr47	Feelings	.673		,794										
Congr54	Happy	.678		,721										
Congr37	Enthusiastic	.703		,642										
Congr36	Emotional	.609		,630										
Congr129	Warmth	.641		,619										
Congr46	Fantasy	.708		,598										
Congr2	Actions	.738			,790									
Congr3	Activity	.707			,712									
Congr26	Deliberation	.600			,503									
Congr119	Trust	.667				,698								
Congr120	Trustworthy	.578				,693								
Congr87	Reliable	.600				,629								
Congr133	Wholesome	.680					,776							
Congr50	Genuine	.570					,707							
Congr128	Vulnerability to stress	.717						,753						
Congr7	Anxiety	.662						,741						
Congr108	Superficial	.762							,760					

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.

Congr109	Superfluous	.728								.731				
Congr126	Useless	.787								.831				
Congr122	Unnecessary	.744								.761				
Congr131	Well-organized	.744									.789			
Congr75	Order	.625									.700			
Congr4	Aesthetic	.668										.703		
Congr107	Successful	.656										.697		
Congr121	Unique	.675											.694	
Congr38	Exceptional	.595											.607	
Congr25	Daring	.683												.709
Congr1	Achievement striving	.689												.571
		Eigenvalues	6.749	2.907	2.295	1.846	1.661	1.495	1.327	1.287	1.191	1.179	1.146	1.113
		% of variance	18.747	8.076	6.375	5.128	4.613	4.154	3.686	3.574	3.307	3.274	3.183	3.091
		Cronbach's α	.897	.801	.672	.620	.554	.611	.212	.637	.601	.337	.168	.195

Extraction Method: Principal Axis Factoring. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 15 iterations.

2.1.3 Confirmatory factor analysis

Confirmatory factor analysis shows a satisfactory fit of the congruence scale to its data. Only the AGFI is slightly below the generally accepted standard

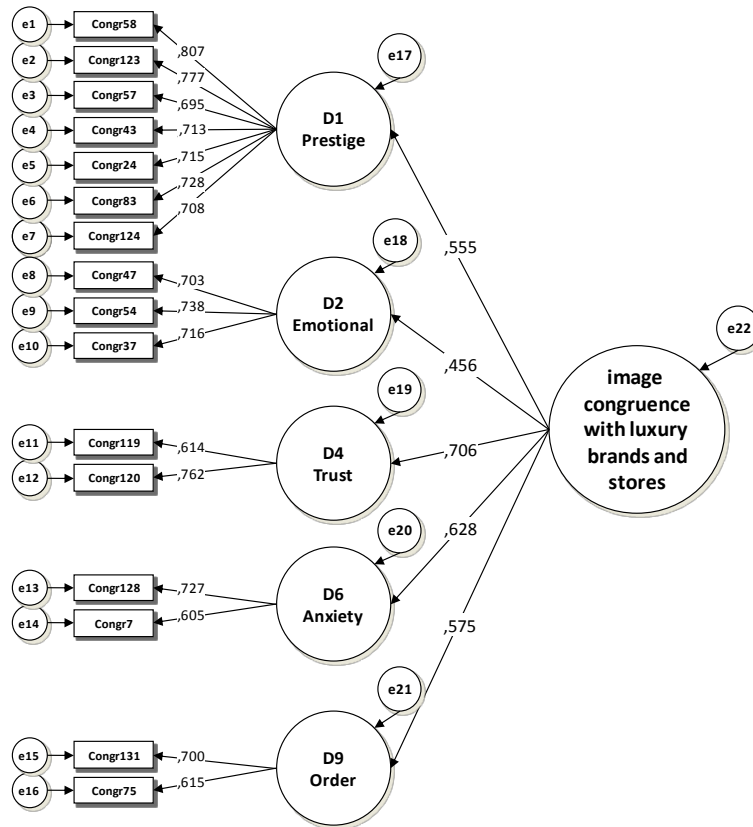
**Table 5: Image congruence with luxury brands and stores:
Fit indices**

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	.904	
		AGFI	.869	
		RMR	< ,050	.049
		RMSEA	< ,050: Satisfying < ,080: Tolerable	.045
		Normed χ^2	≤ 5 and if possible ≤ 2 ou 3	1.325
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	.953	
		CFI	.961	
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	.658	

Confirmatory factor analysis led us to remove three more dimensions: 3 ("action"), 5 ("wholesome") and 8 ("uselessness").

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: Image 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 above a threshold of .70 ($\rho_{\text{Jöreskog}} = .723$), its convergent validity is lower than the accepted standard ($\rho_{cv} = .348$).

We also tested the structure of the "brand attachment scale" to determine *a posteriori* whether its use was justified in our case. The KMO and Bartlett's tests show the suitability of the data sample for factor analysis KMO = 0.851 and Bartlett test $\chi^2(10) = 658.735$, $p < 0.001$). The psychometric properties of the scale applied to the case of luxury brands are satisfactory. The value of Cronbach's alpha ($\alpha = .926$) suggests good internal reliability for the brand attachment scale. Results confirm that we are dealing with a unidimensional scale (Lacoeuilhe, 2000) marking the global nature of this emotional response. The principal components factor analysis helps to explain 77.57% of the total variance. The fit measures are also acceptable (GFI = .852; CFI = .909; RMR = .077).

⁶ This first measure of reliability was complemented in the confirmatory factor analysis with Jöreskog's ρ (1971) 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.

2.1.4 “Congruence → Brand attachment”: Structural equation model

A structural equation model linking the “image congruence” to “brand attachment” is tested. The global model testing results show fit values of RMSEA (.064) and normed χ^2 (1.655) coefficients better than commonly accepted standards and GFI (.845) and AGFI (.805) 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 = .922 and TLI = .910). In addition, PGFI (.670) 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 ($R^2 = .231$) significant at the 0.1% level. This congruence model explains 23.1% of the “brand attachment” variance for the global sample.

Table 6: “Congruence → Brand attachment” model items: Standardized regression weights (λ_i) and coefficient of determination (R^2)

		Standardized Regression Weights
Congruence → Brand Attachment		.481 ($R^2 = .231$)
Congruence		
CongrD1	Prestige	.788
Congr58	High-priced	.803
Congr123	Upper-class	.778
Congr57	High-class	.690
Congr43	Expensive	.710
Congr24	Costly	.716
Congr83	Prestigious	.731
Congr124	Upscale	.714
CongrD2	Emotion	.437
Congr47	Feelings	.692
Congr54	Happy	.725
Congr37	Enthusiastic	.737
CongrD4	Trust	.556
Congr119	Trust	.601
Congr120	Trustworthy	.778
CongrD6	Anxiety	.479
Congr128	Vulnerability to stress	.698
Congr7	Anxiety	.630
CongrD9	Order	.393

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.

Congr131	Well-organized	.804
Congr75	Order	.535
Brand Attachment		
Atta1	I like this luxury brand very much	.875
Atta2	Purchasing this luxury brand is very pleasurable for me	.835
Atta3	I feel comfortable buying or owning this luxury brand	.805
Atta4	I am deeply involved in (attached to) this luxury brand	.836
Atta5	I am very attracted by this luxury brand	.889

We now want to compare results country by country. 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 ($D_i\text{Congr} \rightarrow \text{Congruence}$) and simple linear regression ($\text{Congruence} \rightarrow \text{Brand attachment}$) 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) is usually done to answer the question of which of the independent variables ($D_i\text{Congr}$) 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 7: Multiple regression “ $D_i\text{Congr} \rightarrow \text{Congruence}$ ”: standardized coefficient (β) and country rankings

$D_i\text{Congr} \rightarrow \text{Congr}$	Overall		Italy		France		Germany		India	
$D_1\text{Congr}$: Prestige	,334	②	,270	④	,332	②	,434	①	,244	④
$D_2\text{Congr}$: Emotion	,278	⑤	,241	⑤	,300	④	,357	④	,195	⑤
$D_4\text{Congr}$: Trust	,348	①	,377	②	,351	①	,371	②	,380	①
$D_6\text{Congr}$: Anxiety	,330	③	,420	①	,244	⑤	,369	③	,333	②
$D_9\text{Congr}$: Order	,305	④	,371	③	,309	③	,302	⑤	,321	③
N	160		40		40		40		40	

This analysis must be conducted with caution since the samples from each country are small. However, it is interesting to note that, contrary to what we might think at first, there is no common structure to countries where luxury is traditionally implemented (Italy, France, and Germany) versus to the country in which the luxury market is more recent (India). 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 (β) from the “ $\text{Congruence} \rightarrow \text{Brand Attachment}$ ” models in each of the countries in our sample.

Table 8: Simple linear regression “Congruence → Brand attachment”: standardized coefficient (β) for each country

Congruence → Brand attachment	Overall	Italy	France	Germany	India
β	.249 ^(***)	.114 ^(NS)	.437 ^{**}	.218 ^(NS)	.117 ^(NS)
F	10.544	.514	9.427	1.951	.538
VIF	1.000	1.000	1.000	1.000	1.000
N	160	40	40	40	40

^(NS) non-significant; ^(*) $p < .05$; ^(**) $p < .01$; ^(***) $p < .001$

The results are statistically non-significant in all countries except France. Strictly speaking, the results are to be interpreted with extreme care. It is just possible to rank countries according to the explanatory capacity of congruence in brand attachment. France comes first with a beta of 0.437, followed by Germany, India, and finally Italy. Again, these results deserve to be tested at a later stage of our research.

Conclusions and Further research developments

This research extends the work that our group started a few years ago about the perception and consumption of luxury goods in different countries. The main objective of this research project is to measure the congruence among brand, store and consumer personalities for luxury goods.

Many scales have been implemented to measure these different sorts of personality. For the first phase of our project, the most relevant and replicated scales have been chosen. A list of the items appearing in each scale has been created with eliminating the redundant or repeated items. In the second phase, our objective was to purify the list of 134 items emerging from the previous step to create a new scale which can be used for a third, quantitative phase of our research.

The third phase will consist of an extensive analysis of the personality congruence based on a sample of around 150 individuals in each country of our research group (Italy, France, Germany, Great-Britain, Japan, Russia, USA, India, Australia, and China). It will enable us to achieve cross-cultural comparisons of the influence of the image congruence individual/brand/store on luxury brand attachment.

The results of the purification process are very interesting because 12 dimensions to measure congruence between brand/store and consumer personality and 36 items composing these 12 dimensions were found.

After eliminating some dimensions that are not reliable, we obtain a scale that can be easily used for our final research looking for cross cultural differences in congruence and in the link between congruence and brand attachment.

The dimensions emerging at the end of the purification process are consistent with the general image of luxury and with the results of previous research in this field.

It is interesting to note that for the scale-purification process we interviewed consumers from both developed and developing countries. The scale created is not biased by the level of consumer expertise and knowledge of luxury brands reached in different parts of the world.

The number of respondents from each country was too limited in this part of the research to allow us to already conduct a statistically significant cross-cultural analysis concerning congruence and the relation between congruence and brand attachment.

At the same time, these small samples don't allow us to measure differences in the congruence of personalities among the different brands proposed by researchers. For the same reason, future research with a larger sample from each country will be useful to verify the existence of differences in the congruence and brand attachment for the different brands taken into consideration.

References

- Aaker J.L. (1997), "Dimensions of brand personality", *Journal of Marketing Research*, 34, August, 347-357.
- Ambroise L., P. Valette-Florence, J-M. Ferrandi and D. Merunka (2003), "La construction d'un baromètre de mesure de la personnalité de la marque adapté au contexte français : premiers resultants", *Actes du 19^{ème} Congrès International de l'Association Française du Marketing*, Tunis.
- Azoulay A. and J.N. Kapferer (2003), "Do brand personality scales really measure brand personality?", *Journal of Brand Management*, 11 (2), 143-155.
- Azoulay A. (2002), "Les échelles de personnalité de marque mesurent-elles réellement la personnalité ?", *Journée thématique de l'Association Française de Marketing*, Institut de Recherche en Gestion, Paris, 12 décembre.
- Belch G.E. and E.L. Landon (1977), "Discriminant validity of a product-anchored self-concept measure", *Journal of Marketing Research*, 14 (2), 252-256.
- Birdwell A.E. (1968), "A study of the influence of image congruence on consumer choice", *Journal of Business*, 41 (1), 76-88.
- Browne M.W. and R. Cudeck (1993), "Alternative ways of assessing model fit", in *Testing Structural Equation Models*, (eds.) K.A. Bollen and J.S. Long, Sage, Beverly Hills, CA, 136-162
- Byrne D. (1971), *The Attraction Paradigm*, Academic Press, New-York.
- Chan P.Y.L., J. Saunders, G. Taylor and A. Souchon (2003), "Brand personality perception: Regional or country specific?", *European Advances in Consumer Research*, 6, 300-307.
- Corneo G. and O. Jeanne (1997), "Conspicuous consumption, snobbism and conformism", *Journal of Public Economics*, 66, 55-71.
- d'Astous A. and M. Lévesque (2003), "A scale for measuring store personality", *Psychology & Marketing*, 20 (5), 455-469.
- d'Astous A., I. Said Hadj and M. Lévesque (2002), "Conception et test d'une échelle de mesure de la personnalité des magasins", *Actes du XVIIIème Congrès International de l'Association Française de Marketing*, 23-24 mai, Lille, 115-130.
- Dittmar H. (1994), "Material possessions as stereotypes: Material images of different socio-economic groups", *Journal of Economic Psychology*, 15, 561-585.
- Dolich I.J. (1969), "Congruence relationships between self images and product brands", *Journal of Marketing Research*, 6 (1), 80-84.
- Dornoff R. J. and R.L. Latham (1972), "Congruence between personal image and store image", *Journal of Market Research Society*, 14, pp. 45-52.
- Eagly A.H. and S. Chaiken (1993), "The nature of attitudes", in *The Psychology of Attitudes*, (eds.) A.H. Eagly and S. Chaiken, Harcourt Brace Jovanovich College Publishers, Orlando, 1-21.
- Ferrandi J-M. and P. Valette-Florence (2002), "Premiers test et validation de la transposition d'une échelle de personnalité humaine aux marques", *Recherche et Applications en Marketing*, 17 (3), 21-40.
- Ferrandi J-M., D. Merunka and P. Valette-Florence (2003), "Le personnalité de la marque : bilan et perspectives", *Revue Française de Gestion*, 145 (Juillet-Août), 145-162.
- Festinger L. (1954), "A theory of social comparison process", *Human Relations*, 1, 117-140.
- Festinger L. (1957), *A Theory of Cognitive Dissonance*, Row, Peterson and Company.
- Fleck N. and V. Maille (2010), "Trente ans de travaux contradictoires sur l'influence de la congruence perçue par le consommateur: synthèse, limites et voies de recherche", *Recherche et Applications en Marketing*, 25 (4), 69-92.

- Godey B., J. Lagier and D. Pederzoli (2009), "A measurement scale of "aesthetic style" applied to luxury goods stores", *International Journal of Retail & Distribution Management*, 37 (6), 527-537.
- Byrne D. and W. Griffitt (1973), "Interpersonal attraction", *Annual Review of Psychology*, 24 (1), 203-336.
- Grubb E.L. and H.L. Grathwohl (1967), "Consumer self-concept, symbolism and market behavior: A theoretical approach", *Journal of Marketing*, 31 (4), 22-27.
- Grubb E.L. and G. Hupp (1968), "Perception of self, generalised stereotypes, and brand selection", *Journal of Marketing Research*, 5 (1), 58-63;
- Grubb E.L. and B.L. Stern (1968), "Self-concept and significant others", *Journal of Marketing Research*, 8 (3), 382-385.
- Gustafsson C. (2002), "Brand Trust and Authenticity: The Link between Trust in Brands and the Consumer's Role on the Market", *Advances in Consumer Research, European Conference Proceedings*, 7, 522-527.
- Hair J. F., R.E. Anderson, R.L. Tatham and W.C. Black (1995), *Multivariate Data Analysis*, 4th edition. Prentice Hall, Englewood Cliffs, NJ.
- Heine K. (2010), "The personality of luxury fashion brands", *Journal of Global Fashion Marketing*, 1 (3), 154-163.
- Heine K. (2009), "Using personal and online repertory grid methods for the development of a luxury brand personality", *The Electronic Journal of Business Research Methods*, 7(1), 25-38.
- Helgeson J.G. and M. Supphellen (2004), "A conceptual and measurement comparison of self-congruity and brand personality. The impact of socially desirable responding", *International Journal of Market Research*, 46 (2), 205-233.
- Hong J.W. and G.M. Zinkhan, (1995), "Self-concept and advertising effectiveness: The influence of congruency, conspicuousness, and response mode", *Psychology & Marketing*, 12 (1), 53-77.
- Hu L-T. and P.M. Bentler (1999), "Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives", *Structural Equation Modeling*, 6 (1), 1-55.
- Jacobson E. and J. Kossoff (1963), "Self-percept and consumer attitudes toward small cars", *Journal of Applied Psychology*, 47 (4), 242-245.
- James L.R., S.A. Mulaik and J. Brett (1982), *Causal Analysis*, Sage, Beverly Hills, CA.
- Kaplan D. (2000), *Structural Equation Modeling*, Sage, Thousand Oaks.
- Kleine R.E., S.S. Kleine and J.B. Kernan (1993), "Mundane consumption and the self: A Social-identity perspective", *Journal of Consumer Psychology*, 2 (3), 209-235.
- Kressmann F., M.J. Sirgy, A. Hermann, F. Huber and D-J. Lee (2006), "Direct and indirect effects of self-image congruence on brand loyalty", *Journal of Business Research*, 59 (9), 955-964.
- Lacoeuilhe J. (2000), "L'attachement à la marque : proposition d'une échelle de mesure", *Recherche et Applications en Marketing*, 15 (4), 61-77.
- Landon E.L. (1974), "Self concept, ideal self concept, and consumer purchase intentions", *Journal of Consumer Research*, 1 (2), 44-51.
- Leigh J.H. and T.G. Gabel (1992), "Symbolic interactionism: Its effects on consumer behavior and implications for marketing strategy", *Journal of Consumer Marketing*, 9 (1), 27-38.
- Malär L., H. Krohmer, W.D. Hoyer and B. Nyffenegger (2011), "Emotional brand attachment and brand Personality: The relative importance of the actual and the ideal self", *Journal of Marketing*, 75 (4), 35-52.
- Mandler G. (1982), "Stress and thought processes", in *Handbook of Stress: Theoretical and Clinical Aspects*, (eds.) L. Golberger and S. Breznitz, The Free Press, New-York, 88-104.

- Manrai A.K. and L.A. Manrai (1995), "A comparative analysis of two models of store preference incorporating the notion of self-image and store-image: Some empirical results", *Journal of Marketing Channels*, 4 (3), 33-51.
- Costa P.T. and R.R. McCrae (1995), "Domains and facets: Hierarchical personality assessment using the revised NEO personality inventory", *Journal of Personality Assessment*, 64 (1), 21-50.
- McCrae R.R., P.T. Costa and T.A. Martin (2005), "The NEO-PI-3: A More Readable Revised NEO Personality Inventory", *Journal of Personality Assessment*, 84 (3), 261-270.
- McDonald R.P. and M-H.R. Ho (2002), "Principles and practice in reporting statistical equation analysis", *Psychological Methods*, 7 (1), 64-82.
- Metha A. (1999), "Using self-concept to assess advertising effectiveness", *Journal of Advertising Research*, 39 (1), 81-89.
- Moore C.M. and G. Birtwistle (2005), "The nature of parenting advantage in luxury fashion retailing: The case of Gucci group NV", *International Journal of Retail and Distribution Management*, 33 (4), 256-270.
- Mulaik S.A., L.R. James, J. Van Alstine, N. Bennet, S. Lind and C.D. Stilwell (1989), "Evaluation of goodness-of-fit indices for structural equation models", *Psychological Bulletin*, 105 (3), 430-445.
- Munson J.M. and W.A. Spivey (1981), "Relation between social class and three aspects of self-concept: Actual, ideal and egocentric self", *Journal of Social Psychology*, 119, 1, 85.
- Munally J. (1978), *Psychometric Theory*. McGraw-Hill, New-York.
- O'Cass A. and H. Frost (2002), "Status brands: Examining the effects of non-product brand associations on status and conspicuous consumption", *Journal of Product and Brand Management*, 11 (2), 67-88.
- Pedhazur E.J. and L. Pedhazur Schmelkin (1991), *Measurement, Design, and Analysis: An Integrated Approach*, Lawrence Erlbaum Associates Inc., Hillsdale, N.J..
- Peterson R.A. (1994), "A meta-analysis of Cronbach's coefficient alpha", *Journal of Consumer Research*, 21 (2), 381-391.
- Rosenthal R. and R.I. Rosnow (1984), *Essentials of Behavioral Research: Methods and Data Analysis*, McGraw-Hill, New-York.
- Ross I. (1971), "Self-concept and brand preference", *Journal of Business*, 44 (1), 38-50.
- Shavitt S. (1992), "Evidence for predicting the effectiveness of value-expressive versus utilitarian appeals: A reply to Johar and Sirgy", *Journal of Advertising*, 21 (2), 47-51.
- Shavitt S., T.M. Lowrey and S.P. Han (1992), "Attitude functions in advertising: The interactive role of products and self-monitoring", *Journal of Consumer Psychology*, 1 (4), 337-364.
- Sirgy M.J. and J. Danes (1981), "Self-image/product-image congruence models: Testing selected models", *Advances in Consumer Behavior*, 9, 556-561.
- Sirgy M.J., D. Grewal, T.F. Mangleburg, J-O. Park, C. Kye-Sung, C.B. Clairborne, J.S. Johar and H. Berkman (1997), "Assessing the predictive validity of two methods of measuring self-image congruence", *Journal of the Academy of Marketing Science*, 25 (3), 229-241.
- Sirgy M.J. (1982), "Self-concept in consumer behavior: A critical review", *Journal of Consumer Behavior*, 9 (3), 287-300.
- Sirgy M.J. (1986), *Self-Congruity: Toward a Theory of Personality and Cybernetics*, Praeger, New-York.
- Solomon M.R. (1983), "The role of products as social stimuli: A symbolic interactionist perspective", *Journal of Consumer Research*, 10 (3), 319-329.

Steiger J.H. and J.C. Lind (1980), "Statistically-based tests for the number of common factors", *Annual Spring Meeting of the Psychometric Society*, May, Iowa City, IA.

Steiger J.H. (2007), "Understanding the limitations of global fit assessment in structural equation modeling", *Personality and Individual Differences*, 42 (5), 893-898.

Stern B.L., R.F. Bush and J.F. Hair (1977), "The Self-Image/Store Image Matching Process: An Empirical Test", *The Journal of Business*, 50 (1), 63-69.

Helgeson J.G. and M. Supphellen (2004), "A conceptual and measurement comparison of self-congruity and brand personality. The impact of socially desirable responding", *International Journal of Market Research*, 46 (2), 205-233.

Tabachnick B.G. and L.S. Fidell (2007), *Using Multivariate Statistics*, 5th edition, Allyn and Bacon, New-york.

Tsai S. (2005), "Utility, cultural symbolism and emotion: A comprehensive model of brand purchase value", *International Journal of Research in Marketing*, 22, 277-291.

Vernette É. (2003), "Personnalité de marque et image de soi", *International Marketing Trends Congress*, Venise.

Vernette É. (2008), "Les atouts et les pièges de la personnalité de marque", *Décisions Marketing*, 49, 19-32.

Vigneron F. and Johnson L.W. (1999), "A review and a conceptual framework of prestige seeking consumer behavior", *Academy of Marketing Science Review*, 1. <http://www.amsreview.org/articles/vigneron01-1999.pdf>

Vigneron F. and Johnson L.W. (2004), "Measuring perceptions of brand luxury", *Journal of Brand Management*, 11 (6), 484-506.

Wiedmann K.P., N. Hennigs and A. Siebels (2009), "Value-based segmentation of luxury consumption behaviour", *Psychology & Marketing*, 26 (7), 625-651.

Wigley S.M., C.M. Moore, G. Birtwistle (2005), "Product and brand: Critical success factors in the internationalisation of a fashion retailer", *International Journal of Retail & Distribution Management*, 33 (7), 531-544.

Wong N.Y. and A.C. Ahuvia (1998), "Personal taste and family face: Luxury consumption in Confucian and Western societies", *Psychology & Marketing*, 15 (5), 423-432.

Zinkhan G.M. and J.W. Hong (1991), "Self-concept and advertising effectiveness. A conceptual model of congruency, conspicuousness, and response mode", *Advances in Consumer Research*, 18, 348-354.