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DEVELOPMENT OF A BRAND PERSONALITY SCALE
AND APPLICATION TO TWO SUPERMARKET BRANDS

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Abstract

We present the development and the test of a brand personality measurement scale developed in France across product categories. Exploratory and confirmatory analyses validate a first level structure composed of 7 dimensions. When applied to supermarket brands, the scale is proved to be partially invariant. Brand personalities of the two biggest French supermarket retailers *Carrefour* and *Leclerc* exhibit high contrast, suggesting that brand personality is a concept that might well affect overall store attitude, preference, choice and shopping behavior.

Keys words

Brand personality, Retailing, Supermarkets, Branding, Brand management

Résumé :

Nous développons et testons une échelle de mesure de la personnalité de la marque sur plusieurs catégories de produits. Les analyses aboutissent à une structure fiable et valide comprenant 7 traits de personnalité. Nous appliquons cette échelle aux seules enseignes de distribution et testons son invariance. Les personnalités de deux grandes enseignes d'hypermarchés (Carrefour et Leclerc) sont très contrastées. Ceci suggère que la personnalité des enseignes est un concept qui affecte probablement l'attitude par rapport à l'enseigne, le choix de l'enseigne et le comportement d'achat.

Mots-clés : Personnalité de la marque, Distribution, Hypermarchés, Gestion de la Marque.

DEVELOPMENT OF A BRAND PERSONALITY SCALE AND APPLICATION TO TWO SUPERMARKET BRANDS

Do brands have a personality? Can they be described in terms of a set of traits or in terms of a limited and stable set of generic terms such as extraversion or openness to new experiences as it is done for human beings? This idea originally proposed by Martineau in 1958 has been developed by Plummer (1984) who proposed that a brand might be described based on three main dimensions: physical attributes, functional characteristics or benefits associated to consumption and personality traits associated to the brand. The brand personality concept has been largely debated among academics and market researchers in general since the seminal article by Aaker (1997). The concept of brand personality is considered important as it might help to differentiate brands (Plummer, 1984, McEnally and De Chernatory, 1999) and to increase the personal meaning of a brand for the consumer (Levy, 1959, Fournier, 1998). The existence of brand personality traits should help consumers to express their self-concept and to experiment symbolic benefits from their possession or consumption (Belk, 1988). Also, researchers have argued that brand personification allows a better understanding and interpretation of the brand image concept (Dobni and Zinkhan, 1990).

Brands belong to the daily life of individuals who might be attached, committed or loyal to some of them. The concept and reality of brand relationship leads managers to develop positioning strategies and marketing tactics directed at reinforcing the strength of the relationships between brands and their consumers. Recent research in this area has been directed towards understanding both the nature of the brand-consumer relationships and the influence these relationships could have on consumer behavior. The concept of brand personality revived by Aaker is interesting in that it might explain the strength of brand-consumer relationships and consumer buying behavior

such as brand choice or brand loyalty. Aaker's important contribution (1997) has been followed by other studies aiming at better defining or measuring the concept of brand personality (Caprara et al., 2001, Ferrandi and Valette-Florence, 2002). Concerning retail outlets, it has been established that consumers may develop strong personal relationships with employees working in the shops and that they also develop relationships with the stores themselves and with store brands or store names (d'Astous and Levesque, 2003, Macintosh and Lockshin, 1997). These personal relationships should render the brand personality concept particularly relevant in the domain of retailing when applied to well-known and probably meaningful store names such as *Wall-Mart* or *Carrefour*.

Research on brand personality is yet recent and further work is still needed in terms of concept definition, measurement and managerial implications. This research is an effort to contribute in these aspects. Essentially, we propose hereafter the development of a scale allowing brand personality measurement and the application of that scale to retail brand names, as retailing seems to be a domain where brand personality might allow better understanding of consumer behavior. We develop the concept of brand personality and its potential relevance for retail brand names in the first part of the paper. We then propose and test a brand personality scale developed on the French market (using French language). This scale is applied to two major French and international retail brand names (*Carrefour* and *Leclerc*). Brand personalities of the two retailers are compared and contrasted. Contributions, limits and future research are then discussed.

Brand Personality and Store Personality

Conceptual foundations

Theories on self-reinforcement (Grubb and Grathwohl, 1967) and on congruence between self-image and brand image (Sirgy, 1982) postulate that consumer behavior is determined by the interaction between the personality of the consumer and the perceptions of the products which he prefers or purchases. It is along these lines that the concept of brand personality has emerged. Individuals tend to behave in accordance with the image that they have from themselves or that they wish to convey to others. Brands can be thought as a means to communicate these images (Belk, 1988, Schutz-Kleine et al., 1995) and the connection between brands and personal identity has been conceptualized as a brand-consumer relationship (Fournier, 1998).

Animism theories consider that Humans need to anthropomorphize objects in order to facilitate their interaction with the world. Thus, consumers assign personalities to brands and may think of brands as possessing human personality traits. However, projecting personality traits on a brand is not enough to create a real consumer-brand relationship. Brands need to be active partners in the possible relationship. Marketing activities of the brands such as communications, direct mail or consumer promotions may create this partnership and may be perceived, analyzed and considered by consumers as being behaviors and personality traits as those of a Human being (Plummer, 1984, Blackston, 1993). Hence, just as individuals synthesize information on behaviors of others persons in terms of personality traits, consumers might project personality traits to brands (Caprara et al., 2001). Managers rely on the image of the typical brand user or the set of human characteristics that consumers associate with the typical user, on endorsement by celebrities, on product attributes, symbols, logos and slogans or any means of personification to develop the associations of brand personality (Batra et al., 1993; Levy, 1959; McCracken, 1989). Contrarily to product attributes which are mainly functional, brand personality tends to have a symbolic function and one of self-expression (Keller, 1993, Phau and Lau, 2001).

Problems linked to the concept of brand personality

- **Conceptualization:** if brand personality is a convenient metaphor to describe specific stable characteristics associated to brands, the concept originally used by advertising agencies has not been defined properly before the work of Aaker (1997). Aaker defines brand personality as “*the set of human characteristics associated with a brand*”. However, this definition seems too general and may lead to the inclusion of items either having no equivalent term for describing Human personality or not belonging to the personality concept. For example, items such as *intelligent*,

successful, upper class or small-town are not personality traits but judgments linked to social organizations and values.

Contrasting with the concept of brand image (a generic term corresponding to the whole set of representations the consumer has with respect to a brand, see Dobni and Zinkhan, 1990) brand personality should be applicable across product categories (a view we share with J. Aaker). As items used to measure brand image are often category-specific and sometimes brand-specific, personality measurement items should have a level of generality allowing them to be applied across categories, brands and cultures. It should also offer the opportunity to transfer meaning from Human personality of consumers to brand personality of the brands they prefer, purchase or reject. Therefore, we define brand personality as “*the set of Human personality traits associated with a brand*”.

- **Measurements:** brand personality scales have been developed based on human personality measurements. Three types of approaches have been followed:

1. The hierarchical approach used by Aaker (1997) follows the classical steps of scale development (Churchill, 1979). The hypothesis is that a brand personality scale should be applicable to all brands (i.e. across product categories and brand types). Aaker identifies 42 traits and five brand personality factors: *sincerity, excitement, competence, sophistication and ruggedness*. This model originally developed in the English language and with data collected on American respondents has allowed differentiating products and services (Bauer et al., 2000, Siguaw et al., 1999). However, critics have emerged arguing that the brand personality scale exhibits some dimensions having no real equivalents in terms of human personality (such as “sophistication” and “ruggedness”). Also, and not surprisingly, the scale is not perfectly stable in different cultural contexts (Aaker et al., 2001; Ferrandi et al., 2000). If a five factor solution is indeed found (as in the United States), some dimensions as “peacefulness” in Japan or “passion” in Spain or “conviviality” in France seem to be country-specific. Finally, some scale items (such as “western”) are too culturally rooted to be applicable outside the US.
2. The lexical approach which is based on the direct application to brands of a human personality scale (Caprara et al., 2001). Results lead the authors to question the transferability of a human

personality scale to brands. Ferrandi and Valette-Florence (2002) also applied to brands a parsimonious human personality scale (the Mini-Markers of Saucier, 1994). The original human personality scale needed a good degree of purification in order to be applicable to brands (14 items from the original 40 were retained).

3. An ad-hoc approach considering that a product or service category is specific and requires the development of an adapted brand personality scale. This approach has been applied for the measurement of store personalities by d'Astous and Levesque (2003). They argue that some sources of inference for personality construction are unique for stores (such as the sales personnel) and that the valence of store personality traits need not be positive (as is the case in the Aaker brand personality scale).

Following our definition of the brand personality construct (“*the set of Human personality traits associated with a brand*”), we argue that a brand personality measurement scale should be applicable across product categories (including stores). The symbolic use of brands, their personification and their consumption for self-expression purposes are theoretical propositions that should hold whatever the product or service categories. What might vary across categories is the relative importance of brand personality dimensions in explaining the intensity of consumer/brand relationships (e.g. commitment) or in explaining preference and choice.

- ***Retail brand name personality:*** Martineau (1958) introduced the concept of store personality but was actually more referring to functional attributes and store image. Store image or associations that consumers have with a store name (such as *quality, luxury and excellence* associated with the famous Parisian store *Fauchon* or *fashion, French style and good price for money* associated with *Galeries Lafayette* in Paris) have been shown to influence store choice and loyalty (Bellenger et al., 1976 ; Macintosh et Lockshin, 1997). Beyond image, retail stores (and services in general) are places within which numerous relationships develop (Macintosh and Lockshin, 1997). Straightforward relationships are interpersonal ones between customers and

sales personnel or between customers themselves. These relationships might favor thinking of a store as having a personality.

Major retailers have acquired high awareness levels and high penetration due to multiple locations. For example, the *Carrefour* supermarkets (and the *Carrefour* brand) account for 28% of the supermarket surface in France. Therefore, retail brand names have become real brands with strong associations and high brand equity, just as other major brands in consumer or durable goods. Achenbaum and Bogda (1997) claim that « the retail chain has become a potent brand in its own. Like manufacturer brands, each chain has a distinctive identity and personality that consumers readily recognize». Retailers use all communication means used by other brands (advertising in multiple media, catalogues, coupons, sites, consumer promotions, etc.) as well as service mix, store atmospherics and store design to communicate to customers. Therefore, consumers are in a position to interpret all these messages as behaviors, allowing them to perceive a store personality and a retail brand name personality.

Finally, the success (or unsuccess) of retailers such as *Carrefour*, *Ikea*, *Target*, *C&A*, *H&M* or *The Body Shop* might be partly explained through the theory of congruence whereby consumers perceive brand personalities that they will try to be close to, or that will allow self-expression. Beyond acquisition, possession and consumption of objects or products, consumers can express their self-concept through the choice of retailers and stores. Applying the brand personality concept to retail brand names seems therefore legitimate and important. We now propose a scale to measure retail brand personality and contrast personality of two supermarket retailers on the French market, namely *Carrefour* and *Leclerc*.

Scale Development and Testing

Our objective is to build a personality measurement scale applicable across product (or service) categories (including stores), in accordance with our conceptualization of brand personality. We thus used published findings (such as the Aaker's scale) and generated ourselves other brand personality items. Scale purification and validation were then conducted with measurements performed on multiple product categories. We now present the results of the classical steps followed in scale development and testing (item generation, scale purification and validity tests).

Generation and initial screening of items

Generation of items was performed through a two-step procedure:

1. Selection of items from existing scales: we gathered 112 items from existing scales (Aaker, 1997, Aaker et al., 2001, Caprara et al., 2001, Ferrandi and Valette-Florence, 2002). A convenience sample of 161 business students evaluated these items in terms of their ability to describe brands as persons.
2. Generation of new items by consumers and experts: we used the technique of nominal groups (Claxton et al., 1980) to induce consumers and experts to elicit words they would use to describe brand personalities. Three experiments were conducted with a group of six university experts and two groups of eight consumers. The mean number of items generated by each group was 130. Semantic content of each item was discussed among participants in order to check for convergence in interpretation. Each group participant was then asked to evaluate individually, on a 7-point scale, the ability of each item to describe a brand as a person.

Items purification was completed through two steps:

1. Selection of items based on item evaluations: items from existing scales were retained if the mean evaluation score was greater than 4 (on a 5 point scale). Items from the list generated by experts or consumers were selected if mean score was greater than 5.5 (on a 7 point scale). After this first purification phase, 88 items were kept for further analysis.
2. Elimination of identical or redundant items: Experts eliminated items judged as identical and grouped items judged as very similar. Among group of items judged similar, only the item best evaluated was retained.

At the end of this phase, a final list of 69 items best able to describe brand personality was obtained.

Scale testing and purification

The scale of 69 items was tested following two steps. We first selected 4 brands for their awareness and penetration levels so that virtually all respondents would have a reliable judgment of brand personalities. The 4 brands are composed of two pairs of brands, each pair competing on the same market (*Coca-Cola* and *Pepsi-Cola* on the one hand, *Nike* and *Adidas* on the other hand). Data were collected on a sample of 100 business students from a French university. They were asked to judge brand personality of the 4 brands on the list of items, using a 1 to 7 Likert scale. In order to have a more representative sample of the population, we selected 4 other well-known brands with high penetration levels: two coffee brands (*Carte Noire* and *Grand-Mère*) and two supermarket retail brands (*Carrefour*

and *Leclerc*). Data were collected through the Internet on a sample of 190 respondents for both pairs of brands. Both samples represented the French population well in terms of age and occupation.

The personality scale structure was then tested on pooled data (1089 observations for the whole set of 8 brands). Based on principal component factor analysis with promax rotation, an iterative procedure allowed purification of the measurements through successive elimination of items ill-represented on the factors (communality inferior to 0.5). This led to an order 1 structure composed of 18 items loading on 7 dimensions (see Table 1).

INSERT TABLE 1 HERE

Validity Tests

Validity of scale structure was tested by means of trait validity performed through a confirmatory factor analysis, the results of which were validated via a systematic bootstrap procedure. Trait validity and discriminant validity were assessed (t tests associated to each factorial weight, mean extracted variance and the ρ internal coherence coefficient of Jöreskog). In table 2 appear the indicators of convergent validity and reliability. Results are satisfactory and show good trait validity for the uncovered personality scale. The scale contains some of the facets proposed by Aaker (cheerful, reliable) and by d'Astous and Levesque (sophistication, genuine, solid) as well as new ones (lively, joyful), which might offer a richer understanding of differences between competing brands.

INSERT TABLE 2 HERE

Personality of Supermarket Brands

Since the scale has been developed on all product categories pooled together, a natural question arises: is the scale stable across categories and in our specific case, is the scale structure applicable to retail brands? Following the procedure proposed by Steenkamp and Baumgartner (1998), we performed a multi-group CFA in order to assess factor invariance of the scale between all the categories pooled together and the retail category. We only found statistically significant differences for a model with items “*joyful*” and “*sensual*” unconstrained (chi-square = 1577.8, df = 246 for the constrained model and chi-square = 1519.3, df = 244 for the unconstrained model). Thus, for store

brands analyzed separately, two personality items only (out of 18) have factor loadings differing from the whole population. Furthermore, coefficient linked to the item “sensual” is in the same order of magnitude (see Table 1). We may thus conclude that the scale is partially (almost fully) invariant and may be applied independently to supermarkets retail brands.

The measurement of brand personality is managerially interesting if it allows description of brands’ personalities and if it allows contrasting personalities of competing brands. Managers may better understand major brand associations and identify target groups sensitive to some personality traits. The differences in store brand personalities for brands *Carrefour* and *Leclerc* were first tested through discriminant analysis which lead to correct classification of 89.2% of cases. An analysis of variance was conducted on the factor scores obtained for the two brands on the 7 personality dimensions and results show that the two brands exhibit specific personality traits (see Table 3 and Figure 1 for descriptive results and Table 4 for results of the analysis of variance). The two brands differ on all personality traits at a $p < 0.01$ level.

INSERT TABLE 3 HERE

INSERT FIGURE 1 HERE

INSERT TABLE 4 HERE

A first result is the mean scores of the two supermarkets brands on the 7 brand personality dimensions. High mean scores are obtained on dimensions Classic, Cheerful and Reliable, low mean scores on dimension Enthusiast and very low scores on dimension Attractive (charming, sophisticated). Brand personality traits are certainly linked to the product category and the results obtained here are not surprising concerning large and standard supermarkets on the French market. Although our objective is not to contrast personality profiles across categories, we may notice that for the two coffee brands in our data set, the mean personality scores are high on dimensions Elegant and Attractive. These results are also rather expected concerning superior and highly marketed coffee brands.

Carrefour's personality is perceived as Reliable, Cheerful, Creative and Classic. Scores of Carrefour on all personality traits but one are significantly higher than that of *Leclerc*. This can certainly be considered as a competitive advantage insofar as brand personality favors brand/consumer relationships. *Leclerc's* personality scores are significantly higher than that of *Carrefour* on one dimension only (Elegant, a dimension composed of attributes stylish and glamorous). These personality traits can be related to the marketing strategy of the retailers which is perceived by consumers both in-store and through communication. *Carrefour's* long-lasting advertising theme (be positive, think positive) and advertising creations express cheerfulness, creativity and life. Communications on tracability, quality and control of the whole manufacturing and logistic chain or on low interest rates for financial services are probably linked to Reliability and Classicism. *Leclerc's* communication on environmental friendliness and efforts to create boutique-like areas within the supermarkets for departments such as Pharmacy and Beauty care may have influenced perceptions on personality dimension Elegant.

DISCUSSION

We developed a scale to measure brand personality bearing in mind that the items used to best describe personality as applied to a brand might be different than that used to describe Human personality. The structure of the scale is composed of 7 dimensions and results are satisfactory in terms of reliability and validity. However, this is a first step and additional work must be conducted. The scale structure ought to be reassessed with other product categories and data sets. We might also be seeking a higher order structure, as found in Human personality research and as uncovered in Aaker's scale. Also, the real meaning of the selected items when applied to brands has to be re-assessed as well as their conformity with our definition of brand personality. From an operational standpoint, the ability of the scale to clearly contrast brand personalities of competing brands within a category is an interesting result. Beyond positioning studies where are mainly measured features, store atmospherics and consumer benefits, brand personality studies allow first to learn how the brand is considered on traits such as Reliable, Cheerful or Elegant which will not be considered in typical image studies. Secondly, strengths and weaknesses versus main competitors can be

examined. Study of retail brands is of particular interest as stores are most often described in terms of “physical characteristics” (layout, assortment, price level, promotional activities) or “atmospherics” (music, comfort, decoration, ease of use). Perception of retail brand personalities is clearly of a different nature and we found in this study that two major French supermarket brands differ a great deal on personality traits.

Differentiation of supermarkets is often difficult as supermarket brands have difficulties distinguishing themselves from competitors in terms of locations, assortment (with the exception of store brands) and overall price level. The major supermarket chains such as *Carrefour* and *Leclerc* in France build quite standardized and similar stores in terms of size, layout and overall atmospherics. Brand personality might well be a means of differentiation. Marketing managers may decide what brand personality is desirable and what brand personality traits have to be modified. Based on a personality strategy, communication decisions, assortment decisions or store atmosphere decisions might follow.

D’Astous and Levesque (2003) have proposed a personality scale developed specifically for retail brands. The scale structure is limited to 5 factors which renders it simple to apply. However, their purpose is different than ours, since they wished to develop a scale specifically for retail brands. Our contention is that a personality scale should be applicable across product categories (including services and retail brands), since the brand personality concept should have a high degree of universality (as Human personality). The fact that the scale we propose is applicable to all categories will also allow retail managers to measure the personality of their own store brands. Given their strategic importance, brand personality of store brands vs. national brands can be interesting to analyze as well as the impact or role of personality of store brands on personality of the retail brand itself.

From an academic standpoint, what remains to be done is to test the impact of brand personality on dependent variables such as number of items purchased, amount of time spent in the store, amount of money spent in the store or store loyalty. We suggest that these suggested impacts might not be direct. Mediating variables such as emotions (Sherman, Mathur and Smith, 1997), affect (Chaudhuri and Holbrook, 2001) and measurements of brand/consumer relationships should be tested in a more elaborated model of brand personality effects. Depending on product categories (and perhaps consumers), it is probable that some brand personality traits play a greater role than others on consumer or shopping behavior. What is important in terms of brand management is to identify the important personality traits for the particular category under study. It is on those brand personality dimensions that the managers should concentrate their attention.

We suggest further studying the link between brand personality and Human personality traits of the brand buyer (or non buyer) or of the brand loyal customer. If store choice, shopping behavior and repeat buying behavior are a means to express self-image or to communicate one's desired image to others, retail brand personality should play a role in the process. Finally, there is a need for cross-cultural testing of the scale or for a cross-cultural approach to personality scale development. We already noted problems when personality scales developed in one country were applied in other countries, translation problems certainly being one and culture being another one (Aaker, Benet-Martinez and Garolera, 2001). We recently applied the personality scale proposed here to supermarkets in Tunisia. Some respondents had difficulties thinking of a supermarket brand as being sensual (as also uncovered in the present study conducted in France) but also as being glamorous. On the other hand, some personality items eliminated here during the purification phase of the scale might have been retained elsewhere.

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**Table 1: Structure of the Brand Personality Measurement Scale
(Pooled data and retail brands)**

	All brands		Retail brands	
	Loading	t	Loading	t
CHEERFUL				
Nice	.757	37.71	.775	45.33
Warm	.808	45.74	.853	55.94
Friendly	.750	35.60	.785	44.90
RELIABLE				
Reliable	0.716	29.62	.799	46.05
Robust	0.696	25.21	.737	32.51
Solid	0.727	30.89	.746	29.38
CLASSIC				
Genuine	.772	21.69	.796	25.33
Traditional	.603	17.80	.586	16.55
ELEGANT				
Stylish	.715	28.96	.758	26.62
Glamorous	.815	36.86	.802	31.96
CREATIVE				
Trendy	.717	29.31	.742	34.39
Innovative	.699	26.68	.761	36.09
Imaginative	.771	37.07	.727	34.40
ATTRACTIVE				
Charming	.764	35.94	.721	29.64
Sophisticated	.740	30.95	.679	23.84
Sensual	.786	38.90	.644*	23.36
ENTHUSIAST				
Lively	.863	27.10	.788	12.38
Joyful	.674	20.17	.354*	6.70

* coefficients statistically different from those obtained on pooled data

Table 2: Reliability and Validity of the Scale

Validity indexes				
RMSEA	0.0703			
GFI	0.941			
AGFI	0.895			
	Convergent validity $\rho_{vc} (t>2)$		Reliability (Jöreskog's ρ)	
	All brands	Retail brands	All brands	Retail brands
CLASSIC	0.48	0.49	0.65	0.65
CHEERFUL	0.60	0.65	0.82	0.85
ATTRACTIVE	0.58	0.47	0.81	0.72
ENTHUSIAST	0.60	0.37	0.75	0.51
CREATIVE	0.53	0.55	0.77	0.79
ELEGANT	0.59	0.61	0.74	0.76
RELIABLE	0.51	0.58	0.76	0.81

Table 3: Mean scores of the two retail brands on the personality scale

Personality Dimension	Mean (both brands)	Carrefour	Leclerc
CLASSIC	3.59	3.76	3.41
CHEERFUL	3.53	3.76	3.29
ATTRACTIVE	2.31	2.45	2.17
ENTHUSIAST	3.15	3.34	2.96
CREATIVE	3.22	3.50	2.94
ELEGANT	3.30	2.78	3.82
RELIABLE	3.52	4.22	2.81

Table 4: Results of the Analysis of Variance (Retail brands *Carrefour* and *Leclerc*)

Brand Personality Factors	F	Sign.
CLASSIC	11.074	.001
CHEERFUL	17.643	.000
ATTRACTIVE	8.222	.004
ENTHUSIAST	10.821	.001
CREATIVE	28.864	.000
ELEGANT	82.352	.000
RELIABLE	215.462	.000

Figure 1: Personality Profiles of Retail Brands *Carrefour* and *Leclerc* (mean factor scores)



