The Multi-Sensory Sort (MuSeS)
A new projective technique to investigate and improve the brand image

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Abstract

Purpose – In the literature, there is a lack of tools able to catch the symbolic dimension of the brand image, which go beyond rational and emotional dimensions. This paper aims to find and test a new instrument, named “Multi-Sensory Sort” (MuSeS).

Design/methodology/approach – MuSeS, a direct methodology of exploring the consumer’s symbolic universe and the unconscious expectations, is composed of a set of projective techniques based on multi-sensory stimuli.

Findings – The results showed how MuSeS allows one to collect in-depth data, otherwise difficult to obtain through other kinds of surveys.

Practical implications – MuSeS is able to measure both the consumers’ perceptions about the brand image concept (its potentials) and the characteristics that the customer wishes to find in the brand image (brand image future development).

Originality/value – Most of the tools created to investigate the brand image are based on questionnaires with attitude scales; this assumes that the brand image is a conscious and fully verbalized construct. The paper started from another assumption, trying to measure the non-verbal and the unconscious brand image aspects, using instruments derived both from psychology and marketing.

Keywords Brand image, Brand management, Communication, Consumer behaviour, Market research methods, Consumer research

Paper type Research paper

1. Aims and objectives

The vast majority of brand image literature has always considered the symbolic aspects of this concept as the most difficult to understand and survey, due to their abstractness and unconscious connotation. Most of the tools created to investigate the brand image are based on questionnaires made up of attitude scales, assuming that the brand image is a conscious and fully verbalized concept. This simplification is one of the causes of the less than satisfactory results obtained by the traditional tools. Some scholars suggest applying projective techniques (Malhotra, 2004; Coulter and Zaltman, 1994) to discover the unconscious side of the brand image and to collect deeper information about it. But, these tools lack data standardization, and they are strictly linked to the interviewer’s interpretation.

The aim of this research is to elaborate a new tool to investigate the symbolic side of the brand image, based on some existing tools, in particular the Photosort and the Kelly Repertory Grid (KRG).
Starting with a brief theoretical contextualization of the brand image, the instrument is explained step-by-step and a first trial to analyse its validity is proposed. Finally, results and limitations are discussed.

2. Theoretical background

2.1 Brand image: theoretical construct

The term “image” refers to the cognitive representation of a real object (Da Silva and Syed Alwi, 2008; Caprioti, 1999). Following a socio-psychological view, the image can be considered a cultural synthesis (referring to an external object), that transcends the object and associates the object with the subject’s experiences, impressions, values, beliefs and aspirations (Dobni and Zinkhan, 1990). Coherently, the image can be seen as a social influenced subjective representation of an external object (Coulter and Zaltman, 1994; Zaltman et al., 1995) and can be viewed as a cumulative construct that is updated each time the customer experiences the related product/service (Nguyen and Leblanc, 1998).

The image, as a construct, is supposed to be composed of emotional and functional elements (Kennedy, 1977; Palacio et al., 2002), in which the emotional side seems to be the prevalent one (Palacio et al., 2002).

In literature, the symbolic dimension of the brand image has been recently highlighted; the one that goes beyond the rational side and that generates the emotional one. The symbolic dimension takes shape through the creation (and the representation) of possible “mytho-symbolic worlds”, based on the brand fundamental story-telling capacity (Randazzo, 2006). The capacity to create a semantic universe, a “world of meaning” – though utopian or excessively simplistic – remains possible to achieve, in the consumer’s imagination. These “mytho-symbolic worlds” are also called “possible worlds” (Semprini, 1996), because they are presented as scenarios (far and close at the same time) able to give rise to the consumer’s mechanisms of projection or identification (Ballantyne et al., 2006; Escalas and Bettman, 2005; Hogg and Banister, 2001; Graeff, 1997; Heath and Scott, 1998; Meenaghan, 1995; Solomon and Douglas, 1987; Solomon, 1983; Swartz, 1983). Consequently, some products could appear very similar to others if they are analysed in an analytic and functional way (i.e. nowadays many cars are technically equivalent). Nevertheless, they are perceived by the consumers in a very different way due to the “universes of meaning” which a brand can portray (Semprini, 1996; Swartz, 1983). Thus, the emotional side of a brand image is derived from its symbolic universe (Randazzo, 2006).

According to Poiesz (1989, p. 461), there is “a shift in attention away from the physical aspects and functional benefits of products to their symbolic associations, expressiveness”.

2.2 Brand image: measurement

Nowadays, in marketing and economic psychology literature, standard and validated techniques and instruments to measure the three different sides of the brand image (the affective, cognitive and symbolic ones) are still missing.

In literature, most of the studies, use attitude scales (typically Likert or Osgood) to measure the brand image (Andreassen and Lindestad, 1998; Devlin, 1990; Nguyen and Leblanc, 1998; Koernig and Page, 2002; Eskildsen et al., 2004; Kang and James, 2004; Martinez and Pina, 2005). This wide-spread habit has important implications, often not adequately considered. Using attitude scales implies to consider the brand image an attitude. In psychology, the “attitude” is commonly defined as a construct with three
dimensions having a cognitive side, an emotive side and a behavioural side (Eagly and Chaiken, 1995; Fazio, 1986), thus no symbolic side is present.

Attitude scales have a great usage and importance in measuring constructs like brand loyalty (Wang, 2010), consumer habit, consumer inertia (Huang and Yu, 1999) and inaction inertia (Zeelenberg and van Putten, 2005). The problem states that these kinds of scales lack effectiveness when we have to measure unaware constructs or constructs that are difficult to verbalize. An alternative to the attitude scales is provided by the KRG. The KRG, created by Kelly (1955), aims to elicit the personal cognitive constructs used by people to categorize the world (Mitchell and Kiral, 1999). Kelly (1955) argues that people understand the world by comparing every element with its opposite; to exemplify, people can understand what “good” is only because “bad” exists; without “bad”, people cannot conceptualize what is “good”. In marketing, the KRG is used to elicit aspects on which people differentiate stimuli such as brands (Steenkamp and Van Trijp, 1997). With KRG, three brands are compared. Every brand name is written on a little card and the interviewees are invited to indicate which two, among these three, are more similar brands (Steenkamp and Van Trijp, 1997). After every choice, the interviewee is asked to justify his or her answer (Buttle, 1985).

KRG allows deep analysis of a brand’s similarities and differences to its competitors, although it does not investigate the specific features of the brand, since the researcher can only construe them by reason of comparison.

Some authors try to examine the brand image by analysing the brand personality (Aaker, 1997; Ang and Lim, 2006; Caprara et al., 2001), in order to shift the attention on the brand’s symbolic side. In consumer behaviour research, since the late 1950s, a considerable attention has been given to the construct of brand personality, which refers to the set of human characteristics that can be also associated with a brand (for example, Harley Davidson can be perceived as “wild” and “daring”). This is due to the fact that consumers, often, imbue the brands with human personality traits (the so-called animism process) (Aaker, 1997; Fournier, 1998).

For some scholars (Hosany et al., 2006; Graeff, 1997), the brand image and the brand personality are interchangeable constructs. For others, the brand image is a wide umbrella construct that includes smaller components like the brand personality (Patterson, 1999; Plummer, 1984/1985). For others yet, brand personality and brand identity are two antecedents of the brand image (Heylen et al., 1995).

Considering the brand personality scales, the most known and used one has been created by Aaker in 1997 (Azoulay and Kapferer, 2003). Aaker’s scale received some recent revisions, criticizing the traits content (Van den Berge, 2002; Azoulay and Kapferer, 2003) and some concerns about the generalizability of the scale (Austin et al., 2003). Other research on brand personality is based on the congruence between a subject’s self-image and the image that the subject has about the product/service. In essence, they consider the brand image as a completion of the subject self-image (Escalas and Bettman, 2005; Graeff, 1997; Park et al., 1986; Sirgy, 1982, 1985, 1986). The image-congruity approach is based on the hypothesis that people purchase those brands they believe possess symbolic images, similar and/or complementary to the image they hold of themselves. Similarly, one may decide not to buy a product or a service if one considers that this is not consistent with one’s own perceptions of the self (Britt, 1960; Heath and Scott, 1998).

Upon measuring the image congruity, some scholars (Malhotra, 1988; Heath and Scott, 1998; Hogg and Banister, 2001) elaborated a scale to measure product/brand image
and to measure (one or more components of) self-image on the same dimensions, aiming to quantify the image congruence. Other scholars prefer to compare the self-image of a customer (or his or her ideal self-image) with the image one has about the typical customer of the analysed brand (the “prototypical” customer) (Mannetti et al., 2002).

Most studies – applying the image congruity on the brand image (Birdwell, 1968; Bosnjak and Brand, 2008; Graeff, 1997; Heath and Scott, 1998; Malhotra, 1988) – use scales and quantitative analysis.

Both the attitudes scales and the brand personality instruments assume that the brand image is a construct that can be fully analysed by the subject in a rational way and that can be “verbalized,” or translated into words.

From another point of view, some scholars (Hofstede et al., 2007; Hussey and Duncombe, 1999; Zaltman et al., 1995; Zaltman and Higie, 1993) argue that brand image is instead a non-verbal construct; as Pinker (1994) briefly claimed: “Is thought dependent on words? […] The idea that thought is the same thing as language is an example of what can be called a conventional absurdity” (Zaltman et al., 1995, p. 37). Starting from this last prospective, the need of tools able to explore the brand non-verbal dimension is rising. Even if some qualitative approaches are trying to obtain similar results (Aaker, 1997), it is also clear that different research methods can be useful to deepen such analysis. Following this consideration, the use of projective techniques seems to be an effective strategy (Malhotra, 2004; Zaltman et al., 1995).

Projective techniques aim to elude the interviewee’s logic/verbal inhibitions and offer a back door to enter in the emotional and symbolic area. The projective approach can be defined as “the use of stimuli that allow participants to project their subjective or deep-seated beliefs onto other people or objects” (Morrison et al., 2002, p. 63). The projective techniques can be viewed as open and indirect methods that utilize metaphoric and allusive systems to explore the emotional and non-rational field of the interviewees (Webb, 1992; Sampson, 1986; Dillon et al., 1987; Malhotra, 2004). In the projective techniques, the interviewee is asked to freely interpret and respond to some ambiguous stimuli. As there are no right or wrong answers, it is claimed – in the clinical psychology – that the interview will “project” one’s own unaware feelings and motivations in the answers (Donoghue, 2000), bypassing the social/cultural/personal barriers that may constrict the unconscious cues (rationalizing them) (Waiswol, 1995). One group of projective methods is based on metaphors. They are derived on the axiom that:

[…] metaphors are the key windows/mechanisms for viewing consumer thoughts and feelings and for understanding behaviour […] In fact, there is an emerging consensus that metaphors are the essential units of thought and of communication (Zaltman et al., 1995, pp. 37-8).

Among all metaphor-based projective techniques, a promising technique called “Photosort” recently appeared in the scientific literature.

3. Photosort technique
Photosort is a projective technique, applied for the first time by big advertising agencies, aimed to stimulate the relevant target in expressing their sensations (especially the more unconscious ones) about a brand. The first time it appeared in the scientific literature, was in the paper of Ball and Smith (1992), where “Photosort” was defined as a technique where respondents are invited to group pictures or images referring to a certain product
or service and to build a collage in co-operation with others, in order to represent a product or theme in their lives.

Photosort was then briefly nominated in the de Ruyter and Scholl’s (1998) paper, and it was also defined and used in the van Riel et al.’s (1998) review related to brand image investigation tools. Photosort was finally scientifically developed and widely described by Hussey and Duncombe (1999) and Hofstede et al. (2007). On the basis of these last papers, Photosort’s standard technique consists in a deck of photographs or images presented to the interviewees, asking them to give a profound look at every photo. The interviewee has to assign and group those photographs that in their mind are more representative of the brand, also indicating the pictures that he or she does not want to assign. In Photosort, the photos in the set come from journals, magazines or others sources, and represent different subjects (people, cars, animals, etc.).

The Photosort limitation consists in an excessive interpretative freedom about the obtained result, since it is possible, and probable, that the interviewer and the interviewee associate different meanings to the same picture-brand association.

The first method able to reduce the interviewer’s interpretative space is the “affinity check” (van Riel et al., 1998). Here, the whole set of photos is presented again, and the interviewee has to indicate for which photos he or she feels a particular affinity. This “affinity check” is used to observe if there is a correspondence between the interviewee’s perceived brand image and the interviewee’s self-perception.

A second method used to determine the features that are attributed to each picture is the KRG. Hussey and Duncombe (1999) applied KRG to determinate the characteristics that can appropriately be attributed to each photograph. In their research, the first six interviewees were asked to complete repertory grids using free associations. The software package “Flexigrid” was used to carry out a cluster analysis of the six individual data matrices. Using the most frequently mentioned attributes, a new standard grid with predetermined constructs and poles was built. This one was successively administered to the remaining subjects.

A third interesting method to reduce the interviewer’s interpretation is the one elaborated by Hofstede et al. (2007), based on the brand personality association. These scholars, as a first step, asked participants to cut photographs of celebrities from magazines and to assign them to different brands as objects of research. Alternatively, these scholars asked other participants to connect various jobs (represented in some cards) to different brands. As a second step, the participants were asked to link each celebrity or job to a dominant personality characteristic derived from a brand personality scale[1].

These few applications gave fruitful market insights, and proved the Photosort functionality in exploring the symbolic part of the brand image.

Two consistent limitations are still present:

(1) the above-mentioned methods are not sufficient in reducing the ambiguity of the interviewer’s interpretation of the interviewee’s choices, are; and

(2) these instruments are “mono-dimensional”, in the sense that they work only with images and do not consider other human perception senses, such as “hearing, touch and others”.

Considering the first limitation:

• The use of the brand personality scale on celebrity pictures (Hofstede et al., 2007) seems to mistake the brand personality with human personality, which are two
different constructs (Aaker, 1997). Second, a significant amount of criticism still persists – on the theoretical side – about the relationship of brand personality and brand image (Azoulay and Kapferer, 2003; Graeff, 1997; Heylen et al., 1995; Keller, 1993; Hosany et al., 2006; Patterson, 1999; Plummer, 1984/1985) and, in the applicative side, about the generalization of the brand personality scales (Austin et al., 2003; Low and Lamb, 2000).

- The KRG is a procedure used to elicit aspects on which people differentiate stimuli (Steenkamp and Van Trijp, 1997). The use of the KRG with the selected pictures (Hussey and Duncombe, 1999) seems to give better results in grouping the stimuli than in describing them.

- A third point is linked to the “affinity check” (van Riel et al., 1998). This method is useful to understand the affinity and the empathy of the interviewees and the brand; nevertheless, it does not enrich the knowledge of the stimuli interpretation nor of the symbolic side of the brand image.

Considering the second limitation (consisting in the mono-dimensionality of the Photosort):

[...] there is often a mismatch between the verbocentric data collection and reporting language researchers commonly use and the nonverbal, multisensory languages advertisers and others must use to communicate effectively with consumers. Hence, there is a need for a method that elicits consumer information via multisensory channels (Zaltman et al., 1995, p. 36).

In order to answer both limitations, a revamping of the Photosort method is needed, especially on a more scientific basis. We developed and tested a new form of Photosort in an explorative research project, for a sailboat factory, which asked for an instrument able to provide insights about where and how to improve the brand image, considering the customer ideal product image. This new inquiry instrument, named “Multi-Sensory Sort” (MuSeS), works (as Photosort) in exploring the brand image, especially its symbolic side. It allows to analyse the unconscious expectations and desires, overcoming the main limitations exposed above.

4. MuSeS: method

The MuSeS consists in a combination of projective techniques in which the collected data are grouped through the KRG and worked out via a mathematical clustering algorithm. The results consist of a deep description of the symbolic side of the brand image (how it is or how it should be) derived from the interpretation and the classification of the collected stimuli. It permits to investigate the unconscious side of the brand image, exploring step-by-step the association between a broad variety of multi sensorial stimuli and the target brand.

MuSeS is composed of five steps: the pictures set, the colours set, the touch set, the hearing set and the KRG.

4.1 First step: the pictures set

A number of photographs, spanning across a number of categories, are chosen in accordance to the research aims.

They should represent different scenarios and objects that are rich of symbolic meanings and not strictly related to the target brand image. Some categories (i.e. animals,
cars, houses and landscapes) – due to their rich metaphoric asset – can be universally used in different research applications. However, other pictures can be added according to the specific target brand.

Once the categories are decided upon, at least three pictures should be included in each category. Two must be at opposite semantic poles and one can be neutral (that does not have any of the characteristics of the two opposites or that is a combination of the opposites). For example, animals at opposite semantic poles could be frightening and frightened, wild and domestic, etc. As suggested by Hussey and Duncombe (1999), photographs needed to be:

- different from each other at least in one critical element; and
- neutral, avoiding anything that may bias or confound the respondent.

The MuSeS photoset is composed of the pictures disposed in a random way. The photo disposition is photographed before starting the interview, to successively verify possible relations among the chosen photos and their dispositions.

The interview starts with the interviewee looking at the whole photoset for 2 minutes, in order to see every single picture. Each person is invited to close his or her eyes and to think about his or her own (ideal or actual) target brand image (activating, in this way, the cognitive schemas about the brand). Recent studies have provided evidence that when a cognitive schema is activated, the activation arousal propagates itself to the other schemas in its close vicinity (Anderson, 2000). This means that the propagation is able to unconsciously pre-activate the surrounding schemas of network (Henderson et al., 2009). For example, Dijksterhuis and Van Knippenberg (1998) found that just by making some participants think of the word “professor”, led to improved performance in a general knowledge quiz of this group of interviewees. The participants did not “increase their intelligence” between the tasks, but the correct answers became more available.

In our context, to ask to deeply think to the brand, without knowing why, will trigger an activation propagation in the schemas network that the interviewee has associated with the brand. This will make the interviewee more reactive to the pictures, which are more in sync with the activated schemas. When the person opens his or her eyes, the interviewer asks to indicate if one, none or more than one of those photographs are more in synch with the target brand image. The number of chosen photographs is free (the interviewee can choose as many as he or she wants), according to the “pick-any” technique (Driesener and Romaniuk, 2006).

In the following step, the interviewer collects the pictures and asks the interviewee to close his or her eyes again re-thinking to the target brand image (cognitive schemas re-activation). A few seconds later, when the interviewee opens the eyes, the interviewer gives back every photograph, one-by-one, asking the person to name the first two adjectives [3] that come to mind (“word association projective technique”; Malhotra, 2004). The “word association technique” allows for the bypassing of the rational cognitive filter (rationalization) of the interviewee (that, otherwise, will be activated facing questions like, “what this image means for you?”). Moreover, this technique allows the interviewer to understand the emotions and ideas that the pictures activate in the subject, while avoiding an arbitrary interpretation by the interviewer.

In this process, activating first the schemas of the target brand image (recalling it with closed eyes) and then the schemas of the selected stimuli (seeing again the photo),
the first two adjectives generated will derive from the superimposition of these two activations.

Considering the fact that humans experience the reality through simultaneous different sensorial codes, we decided to expand MuSeS in other sensorial fields:

- by analysing colours, besides photographs; and
- by exploring also, the influence of the touch and the hearing senses.

4.2 Second step: the colours set
To consider the colours, a colour wheel, containing the nine different colours is presented to the interviewee. The wheel has three warm colours, three cold colours and three neutral colours.

This step is planned, not only to expand the analysis on the colour field, but also to verify possible correlations between the chosen figures in the photoset and their colours. In other words, the purpose is to verify if the choice of a photo is influenced by its colours.

The procedure is analogue to the first step: every interviewee has to close the eyes thinking about the target brand image. Once the interviewee reopens his or her eyes, he or she is invited to freely choose (one, none, more than one) the colours that are more in consonance with the target brand image. Finally, after some seconds dedicated to thinking to the target brand image (with closed eyes), the chosen colours are presented again to the interviewee (one-by-one), asking him or her to name the first two adjectives that the stimulus arouses in his or her mind (word association technique).

4.3 Third step: the touch set
This step is aimed to explore the touch sense, in particular the smooth versus coarse dichotomy and the natural versus artificial one. Four different materials are provided:

(1) two artificial: steel and plastic; and
(2) two natural: leather and wood.

Each material is presented in two variations: one smooth and one coarse. Now there are eight objects with the same shape and colour, and this will not allow one to create bias in the interviewee’s preferences.

The procedure is analogue to the previous steps: every interviewee closes his or her eyes and thinks about the brand target image; keeping his or her eyes closed – to not be influenced by the visual cues – the interviewee is invited to touch the eight objects and to freely choose one, none or more than one, that is/are more in consonance with the target brand image. Finally, after another few seconds of target brand image thinking, the chosen materials are presented again to the interviewee (one-by-one), asking him or her to name the first two adjectives that the stimulus arouses in his or her mind.

4.4 Fourth step: the hearing set
This step aims to explore the hearing sense. Since it is more difficult to find semantic oppositions, we decided to use the seven most known and diverse music categories: Rock, Folk, Dance, Pop, Classic, Jazz and Ethnic. For each musical category, we chose a purely instrumental track of 10 seconds in length. As required in every step previously mentioned, the order of the stimuli is randomized.
The procedure is analogue to the previous steps: every interviewee is asked to close his or her eyes and to think about the target brand image. After opening his or her eyes, one is invited to freely choose (one, none or more than one) the music tracks that are more in consonance with target brand image. Finally, after few seconds of target brand image thinking with closed eyes, the chosen music tracks are listened to again (one-by-one), and the interviewee is asked to name the first two adjectives that the stimulus arouses in his or her mind.

In MuSeS, we could have taken into consideration only some aspects of a single musical track, like the pitch and/or the time (Prince et al., 2009). We decided instead to analyse and propose different musical tracks, assuming that the results can provide richer information for further communications and advertising. Also, in a pre-test with ten subjects, the interviewees were able to discriminate among four different music genres more than among four time variations of the same audio track. Anyhow the use of music in marketing research seems as promising (Krishna, 2009) as it is difficult, due to a lack of standards (see, e.g. the different music genre used by Holm et al. (2009) and Gjerdingen and Perrott (2008)). Moreover, the music is very evocative and related to feelings, thus presenting a great opportunity to explore emotions and a possibility to have biased results, as well. For this reason, the interviewee is clearly asked (as in all the steps) to not choose the stimuli he or she likes the most, but the ones he or she feels that are more in sync with the brand. With this precise specification, if the interviewee chooses a kind of music he or she particularly likes, it means that these positive feelings are connected with the brand. Consequently, if one chooses a kind of music that dislikes, it means that he or she has the same feelings towards the brand. With the analysis of the adjectives (e.g. “happy” or “sad”) it will be possible to understand that relation between music and brand.

4.5 Fifth step: KRG
Because of the large number of adjectives collected through the previous steps, a system to organize them was needed. In MuSeS, we proposed the KRG to group the collected adjectives in semantic umbrellas (clusters), considering the meanings attributed by the interviewees and avoiding external interpretations.

Trying to not make the interview excessively long and complicated, the KRG standard technique (Kelly, 1955) was adapted to this context.

The modified KRG consists of randomizing all the adjectives provided, and to give them back to the interviewee in triadic form. Triad-by-triad the interviewee indicates which two, amongst the three, are more similar. This procedure is applied until the list of adjectives is exhausted.

Thanks to this technique, it is possible to understand how each interviewee groups the adjectives and consequentially understand which adjectives have a similar meaning for the interviewee. In this way, it is possible to obtain small groups of adjectives – semantically linked – for the whole group of interviewees.

In applying KRG, we implemented a software application based on a user-friendly “Java” programmed interface. The software automatically randomizes the adjectives at the beginning of the KRG phase, proposes automatically the triads (Figure 1) and records the interviewee groupings. At the end of all the interviews, all the data are processed through a tailored mathematical algorithm. This algorithm is based on graphs, in which any vertex represents an adjective and any arc represents the connection with another
adjective (Figure 2). On these graphs, a stochastic procedure known as the “Markov chains” is implemented. This algorithm has as output semantic clusters of adjectives grouped on the basis of their similarity (Figure 3).

5. Output and practical applications
Throughout the five steps of MuSeS the interviewer obtains a large amount of qualitative and quantitative data, all connected to the actual or ideal target brand image. Data collected can be classified in four categories:

1. **Row stimuli.** List of the pictures, materials, sounds and colours selected.
2. **Adjectives.** List of the words elicited via the word free association technique.
3. **Associations.** Connections between each stimulus and its linked adjectives and vice versa.
4. **Semantic clusters.** Classification of all the adjectives in similar groups.

The data collected can be used in raw form, considering the various kinds of selected stimuli, or, it can be processed in different steps.

First, the stimuli can be analysed considering the frequency of choice for each step. Second, the adjectives can be analysed considering their frequency of choice for each
step and in total. Third, for each MuSeS step (photographs, colours, touch and hearing) the relationship between adjectives and stimuli can be processed. For example, one can look at the most selected sound tracks and at the adjectives associated with them and will be able to understand the interviewee’s reasoning. Similarly, one can look at the most selected adjectives and understand to which stimuli they are connected. Fourth, the groups of adjectives can be processed by the algorithm in order to understand the semantic distance between each adjective.

Among the various application that can be performed with the data collected with MuSeS, most important is the possibility to survey the actual symbolic aspect of the brand or the ideal one. For example, if one needs to create a communication strategy based on the concepts of “power and safety” of a product, one can discover that these adjectives are linked – at the unconscious level – to the sensation aroused by some types of materials and music or that they are stimulated more by some pictures or by a specific colour or a particular sense. This could be viewed as an attempt to create a communication “brief” on scientific results and insights, avoiding the managers’ or the communication experts’ arbitral interpretation of the consumers’ desires.

6. Internal and external validation procedures
In order to evaluate the MuSeS internal validation, all the data collected in each step is compared with the other steps. The aim is to verify if the data are coherent, meaning that there are no evident contradictions in the adjectives elicited by the various submitted stimuli (triangulation of sources, Creswell, 1998).

Data derived in each step can provide different results that are comparable to each other.

The external validation consisted in comparing MuSeS with another tool that measures the perception of a brand image aimed to explore the symbolic aspect or similar dimensions of the brand image.
The Aaker’s brand personality scale, although it views the brand conceptualization and the relationship with the brand as something that can be expressed in a conscious verbal way, it is considered a tool that goes beyond the attitude scales. The brand personality is indeed considered a good approximation of the symbolic side of the brand image, since the construct of personality involves a more abstract and symbolic side than the attitudes do.

In the next section, we will describe the first application of MuSeS, highlighting the internal and external validation processes.

7. First MuSeS application
7.1 Research aim
We tested MuSeS in an explorative research for a sailboat factory that needed an instrument able to provide insights on where and how to improve the brand image, using the approach of “what is the costumer’s ideal product image?” There have been many disputes related to the usefulness of “ideal entities” (Vanderveer and Pines, 2007). Nevertheless, some scholars still consider important to measure the ideal brand image and compare it to the perceived brand image, in order to understand future product developments, product improvements (Lee and Liao, 2009) and communication misalignments (Anisimova, 2010).

7.2 Sample
The sailboat factory provided a complete list of customers who bought or rented a sailboat for leisure in the past five years. Randomizing the names on the list, past customers were invited to participate in a 30 minutes interview, promising them a little gift for their participation. All the interviewees belonged to the same market segment, since the sailboat factory was specialized in medium-size sailboat used for short vacations. The interview was conducted asking the interviewees’ to name their ideal sailboat (ideal for leisure and short-term vacations).

We tested the MuSeS on a sample of 30 people (more five pre-test persons), all males and customers of the sailboat factory with a good knowledge of the brand. The mean of the age of the people was 47.3 years (with 5.62 of standard deviation). The interviews were conducted in an empty and aseptic factory office; each interview was 35 minutes long on average.

At the end of the MuSeS interview, some general questions about the brand and the product usage were asked (i.e. “the length of the sailboat”, “the number of the past sailboats” and “the intention to buy a boat”), aimed to underline possible connections between brand/product usage data and the data collected by MuSeS.

7.3 MuSeS composition
In this first application, the photoset was based on 36 pictures of animals, cars, houses (external view) and some internal parts of houses: kitchens, living rooms and bedrooms. In this case, animals are frequently used as personality and social symbols; houses (external and internal) are symbols semantically similar to the sailboats (that are like “floating houses”); cars are connected with how people want to appear to others and are semantically linked with the boats (both are individual means of transport). For each of these four categories (houses external, houses internal, cars and animals) an assortment of pictures was individuated, aiming to cover the most relevant semantic extremes.
The other steps (colour set, touch set and hearing set) followed the standard stimuli above described.

7.4 Results
Considering the hypothesis that the choice of the photo can be influenced by its disposition in the photoset, we analysed the relation among every choice and the photo position. No relation among the photos’ dispositions and the chosen photos was found.

On 36 pictures, the five most selected were: the dolphin, the country villa, the seagull, the sporty car and the kitchen with minimal-modern design. The five most selected adjectives elicited by all the pictures were free, comfortable, relaxing, bright and speedy.

We considered also the relationship among the most selected photographs and the adjectives elicited from them. The sailboat’s ideal image is perceived as both raw and comfortable. It also transmits brightness, that is usually (especially in the inside part of the sailboat) not an important consideration for boats (the sailboat inner side is typically designed with few external light). It is viewed as futuristic and technologic, but in a smart way, minimal and harmonic, avoiding a flashy style.

The cold colours (42 per cent) and the warm ones (37 per cent) were both generally preferred. We analysed the relation between the most selected colours and the most selected pictures to detect if the pictures were selected because of the represented character or because of the dominant colour. For each subject, we compared the chosen pictures (and their dominant colours) and the selected colours. The result was negative, in the sense that no relation between the picture preference and the colour preference was found.

The five most selected adjectives elicited by all the selected colours were: warm, elegant, bright, clean, relaxing and happy.

Regarding the relationship on the most selected colours (warm and cold ones) and the adjectives elicited from them, the adjectives are quite similar to the ones of the photographs ones. This result confirms the above-mentioned insights. Considering the materials, the majority of the subjects (67 per cent) associated the coarse sensation to the ideal sailboat image. This is quite interesting, since the majority of the sailboat is smooth. The ideal image that results is a relaxing sensation provided by the robustness and resistance (inspired by coarse materials). Majority of the subjects (73 per cent) related natural sensation (provided by leather and wood) to the ideal sailboat image. This is an interesting result, since most parts of a sailboat are artificial (in fibreglass). Besides, the material more similar to the fibreglass, the plastic, was the least chosen one (3 per cent). The natural sensation is related with the idea of warm and naturalness, on the basis of the five most selected adjectives elicited by all the materials, which were: warm, natural, soft, resistant and lasting.

The ideal sailboat image recalls in this manner a sense of warmth provided by the sensation of a resistant natural shelter.

Considering the connection of the most selected materials and the adjectives elicited from them, the leather and the wood are perceived in sync with the semantic poles of warmth: vital, elegance and pleasant.

About the hearing, the sound tracks more commonly selected were: the dance, the pop and the classic. These cues are connected with the idea of a “relaxed mood” given by freedom and serenity, since the five most selected adjectives elicited by all the music tracks selected were: relaxing, free, happy, dynamic and peaceful.
Considering the association of the most selected music tracks and the adjectives elicited from them, dance music appears in sync with the idea of happiness and pleasure (important elements associated with the sailboat also emerged in the other step); pop music is linked in particularly with freedom and calm (elements discussed before) and classic music seems linked with the strength and the power (also these elements are recurrent all along the MuSeS data, indicating their importance).

We elaborated also a meta-stimuli adjective analysis; in other words, we searched the overall most selected adjectives in all the categories (photographs, colours, touch and hearing). The overall “top five” mentioned adjectives were, in descending order, free, warm, relaxing, light-heartedness and comfortable.

In order to better interpret the meaning of the elicited adjectives, we individuated six semantic clusters through the application of our software based on KRG and Markov chains. These four semantic clusters were (each one labelled with the name of the most elicited one): free (free, light-heartedness, openness, adaptable, powerful and adventurous), relaxing (relaxing, comfortable, welcoming, simple and warm), safe (safe, technological and smart) and elegant (elegant and calm).

In every MuSeS step, adjectives were particularly polarized in some specific semantic poles. Photographs stimuli elicited adjectives that were grouped under the semantic clusters of “free” and “relaxing”, colours arouse adjectives linked with “elegant”; the touch produced adjectives like “safe” and music was mostly associated with the word “free”.

7.5 Internal validation
Each step, in all the interviews, lead to similar results; the core concepts were usually the same, but any step added different shades. In this sense, the internal validation was achieved, since the experiment leads to the same construct (triangulation of sources, Creswell, 1998).

7.6 External validation
To explore the possible similarities, the Aaker’s scale was surveyed in order to compare its results with the ones given by MuSeS.

In Aaker’s brand personality scale, the selected traits (thinking of the ideal sailboat image) are shown in Figure 4.
In Aaker’s scale, the most selected adjectives were reliable, rugged, secure, exciting and sincere. These results are different from the adjectives elicited by MuSeS (that were: free, relaxing, warm, light-heartedness and comfortable). Aaker’s personality traits list (personality scale) was built from a closed list, that was supposed to be suitable to all brands, whereas the MuSeS (a projective tool) permits the generation of an adjective-set tailored specifically to the brand image. In this case, if the interviewee does not find in the Aaker’s list the adjectives that he or she thinks are more in synch with the ideal sailboat image, he or she is forced to choose the ones that are similar, even though not the exact intended ones.

Looking at the most selected Aaker brand personality traits and at the whole adjective set provided by MuSeS, some results could be compared. The “reliable”, “secure”, “rugged” and “sincere” are similar to the cluster we named “safe” and “exciting” (emerged from KRG) and are comparable to the MuSeS semantic group “free”.

The results show how Aaker’s brand personality scale provides results not antithetic to the MuSeS ones, but less detailed, generating sparse and redundant information. MuSeS also provides data semantically more contextualized, since each adjective is not alone (as in the brand personality scale), but is connected with similar and dissimilar semantic poles and is also linked to specific stimuli. This confirms our hypothesis that these two tools (Aaker scale and MuSeS) are related (they are both concerning the brand immaterial asset), but different (they are measuring diverse constructs: MuSeS the symbolic asset, the Aaker’s brand personality scale the brand personality).

8. Conclusions, limits and practical applications

MuSeS demonstrated ability to overcome the two major Photosort limitations:

1. the elimination of the interviewer interpretation about the meanings of the interviewee’s choices; and

2. the presence of only “mono-dimensional” results (only images).

MuSeS’ use of the free association technique combined with the adjectives elicited, and the use of the software (the Markov chains) provided a better understanding of the meanings of the interviewee’s choice, provided, in an indirect way, by the same interviewee.

Considering the second limit, MuSeS uses multi-sensory paths, providing results able to support 360 degrees of communication and marketing actions. MuSeS allows for the collection of stimuli (colours, materials, etc.), adjectives and semantic areas connected with the ideal image. For example, if one would create a communication based on the concepts of “power and safety” (recurrent element associated with the ideal sailboat image), one can know that these are linked, at unconscious level, to the sensation aroused by some types of materials and music. Analysing the insights of the MuSeS sections “touch and hearing”, one can refine better the choice, individuating which particular channels should be utilized. We reported the MuSeS results as a “brief”[4] to the communication agency working for the sailboat factory. This could be viewed as an attempt to create a communication “brief” on scientific results and insights, avoiding the managers’ or the communication experts’ arbitral interpretation of the consumers’ desires.

MuSeS’ results from this first application and testing are satisfactory, since it represents a method able to analyse the symbolic side of the brand image. It includes different steps aimed to survey not only the visual part, but it also embedded a hearing and touch inquiry.
MuSeS allows collection of in-depth data, otherwise difficult to obtain with other kinds of surveys (especially the most used ones). MuSeS’ goal is the exploration of the symbolic aspect of the brand image, focusing on the consumer unconscious and embodied cognitions, a field where other scientific methods of measurement are missing. The symbolic aspect of the brand, recognized as one of the most important things, since it is the source from where the identification and emotions related to the brand are originated, was often avoided by the scientific literature, as it is not fully conscious and verbalized.

MuSeS is suitable for two goals: to analyse the “symbolic links” of an existing brand image (and this happens only in the case of well-known brands) and to explore the brand future implementations and improvements. In the first case, the interviewer has to direct all the questions to how the brand actually is; in the second option all the questions have to be based on the ideal brand image (how the brand should be), so it can be applied also for not so well-known brands.

In MuSeS’ first application, we investigated only some senses (sight, touch and hearing), because these are the ones more involved in the evaluation of a sailboat, able to generate an elevated number of attributes. The MuSeS interview, 35 minutes long on average, was perceived from all the interviewees as light, interesting and amusing.

The main limit of the MuSeS consists of requiring the preparation of ad hoc photoset for each different brand investigated. The use of the same photoset for every kind of brand could be inappropriate because the selection of these sets was tailored to sailboats and not to a general and “universal” brand. Only further applications of MuSeS will provide new insights and the development of standard sets. The same thing is true, if one wants to demonstrate that the material set, the colour set and the music set are reliable, effective and stable in different brand contexts. Further researches and tests are needed to enlarge the sample of brands (products and services). It would also be interesting to test MuSeS not only on products with a high-symbolic aspect (like sailboats or cars) but also on commodities and “dull” products or services. The multi-sensory marketing seems indeed very profitable also with very common products (Krishna, 2009). In these cases, MuSeS should be adapted in order to provide sensorial stimuli generic and vague (being a projective technique) and tailored to the product or service semantic universe. In this regard, in Appendix 1 we are presenting the interviewer’s instructions and the questionnaire formats.

Notes
1. The scholars used the SWOCC brand personality scale (Van den Berge, 2002), which is a further elaboration of Aaker’s (1997) brand personality research. The scale contains 73 different personality items, divided into six dimensions.
2. This is caused both by the theoretical confusion and the missing of empirical studies (Patterson, 1999). For some scholars (Hosany et al., 2006; Graeff, 1997) the two constructs could be considered as interchangeable. For some scholars, the brand image is a wide umbrella construct that includes in itself smaller components than brand personality (Patterson, 1999; Plummer, 1984/1985). For others brand personality and brand identity are two antecedents of the brand image (Heylen et al., 1995). Finally, on the brand identity frameworks, brand personality is viewed as a dimension or a facet of brand identity (Keller, 1993; Azoulay and Kapferer, 2003).
3. The adjectives are usually richer in meaning than nouns.
4. As it is intended in the communication agencies language, that is to say the guideline on which build the communication strategy.
References


Van den Berge, E. (2002), Merkpersoonlijkheid langs de Meetlat. (Brand Personality along the Yardstick), SWOCC, Amsterdam.


**Further reading**


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**Appendix. The interviewer script**

Hello,

This interview goal is to understand better your opinion about this brand. The interview takes about 35 minutes, is totally anonymous and there are no right or wrong answers.

**Step 1. Images**

Please close your eyes for a moment and think about the brand. Try to visualize it in your mind, and think about all associations it recalls. Please do not tell me anything yet.

Please look carefully at these pictures for 2 minutes.

(2 minutes)

Please choose the pictures that are more in tune with your idea of the brand. In other words, among all these photos, choose the ones that you felt more in sync with your idea/perception of the brand. You are not requested to tell me why.

You can choose any number of them: one, more than one, none or all. There is no right or wrong answer.

Please put here the photos you have chosen (write the data in the datasheet).

Now I am going to show you, one-by-one, the photos that you have chosen. I am going to ask you a question, please answer as quickly as possible. There is no right or wrong answer.

(Show the first picture chosen): looking at that picture, what are the first two adjectives that are coming in your mind? (Write the data in the datasheet).

(Show the other pictures chosen and ask the same question).

**Step 2. Colors**

Please close your eyes for a moment and think about the brand.

Please look carefully at these colors for 30 seconds.

(30 seconds)

Please choose the colors that are more in sync with your idea of the brand. You can choose any number of them: one, more than one, none or all. There is no right or wrong answer.

Please put here the colors you have chosen (write the data in the datasheet).

Now I am going to show you, one-by-one, the colors that you have chosen. I am going to ask you a question, please answer as quickly as possible. There is no right or wrong answer.

(Show the first color chosen): looking at the color, what are the first two adjectives that come to your mind? (Write the data in the datasheet).

(Show the other colors chosen and ask the same question).

**Step 3. Touch**

Please close your eyes for a moment and think about the brand.

Keeping the eyes closed please handle/touch the materials I am going to give you. Please tell me which touch sensation is more in sync with your idea of the brand. You can choose any number of them: one, more than one, none or all. There is no right or wrong answer.

(Give any material, one by one, for 5 seconds each).

(Write the data in the datasheet).

Keeping the eyes closed, I am going to give you back, one-by-one, the materials you have chosen. I am going to ask you a question, please answer as quickly as possible. There is no right or wrong answer.
(Give the first material chosen): touching it, what are the first two adjectives that are coming to your mind? (Write the data in the datasheet).
(Give the other materials chosen and ask the same question).

Step 4. Music
Please close your eyes for a moment and think about the brand.

Now, I am going to play some music tracks. Please listen to them carefully. Please write down on this paper the music tracks that are more in sync with your idea of the brand. You can choose any number of them: one, more than one, none or all. There is no right or wrong answer.

(Play all the music tracks randomly).
(Write the data in the datasheet).

Now I am going to play again, one-by-one, the music tracks you have chosen. I am going to ask you a question, please answer as quickly as possible. There is no right or wrong answer.

(Play the first music track chosen): listening to that music, what are the first two adjectives that are coming to your mind? (Write the data in the datasheet).
(Play the other music tracks chosen and ask the same question).

Step 5. KRG
(Copy all the adjective elicited from the datasheet to the KRG software. Run the adjectives randomization. Start with the fist triad).

Among these three adjectives (read the first triad), can you please tell me which two are more similar when referring to the brand?

(Apply that procedure until the list of adjectives is finished).

End

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