Conveying personality traits through product design for a symbolic product

Laure Jacquemier-Paquin, Gaëlle Pantin-Sohier, Caroline Lancelot Miltgen

Kulutustustkimus.Nyt (12) 1-2/2018 ISSN 1797-2345 (painettu) ISSN 1797-1985 (Verkkolehti)

VERTAISARVIOITU
KOLLEGIALT GRANSKAD
PEER-REVIEWED
www.tsv.fi/tunnus

Conveying personality traits through product design for a symbolic product

Laure Jacquemier-Paquin, Gaelle Pantin-Sohier and Caroline Lancelot-Miltgen

ABSTRACT

Product design, through its sensory attributes, plays a major role in product perceptions and its consumers' understanding. These attributes convey rich symbolic associations and contribute to shape a brand image and some personality traits. A natural flower is a singular product, expressive and particularly evocative through its design. The expressive and leaving nature of flowers make us consider them as brands, owing human-like traits. An experiment being run on two flowers' species (tulips and roses) with 509 French participants shows how the shape of the flower (pointed or rounded petals) and the brightness of its color (pink for the lighter and burgundy for the darker color), influence the perceived flower's character, with gender as a moderating variable. The findings confirm the power of design to shape consumers' perceptions, especially for symbolic products such as flowers.

Introduction

A product carries symbolic meanings and brand image through its packaging and its attributes (Underwood, 2003). Modifying the characteristics of such product, for example through its color, shape or typography, triggers certain changes in consumers' brand associations (Labrecque & Milne, 2012; Orth & Malkewitz, 2008; McCarthy & Mothersbaugh 2002; Underwood & Klein, 2002 ; Bloch, 2011). Practically, marketers support consumer's need for self-expression by creating brand associations. Literature suggests that consumers need to express themselves through multiple dimensions (Aaker, 1997). When they use brands for self-expressive purposes, consumers relate to personality traits associated with a brand to enhance their own degree of personality (Fournier, 1998; Sirgy, 1982). Indeed the gender dimensions of personality as referred by Grohmann (2009), appear to be especially relevant to brands that have symbolic value for consumers, such as fragrance, in an attempt to reinforce their own personality.

There is however, a lack of empirical research on the antecedents of brand personality. Previous research has mostly focused on fast-moving consumer goods, exploring the relationship between visual components and brand personality

(Labrecque & Milne, 2012; Orth & Malkewitz, 2008). It has not yet focused on symbolic products for which color and shape could have themselves symbolic meanings. Therefore in this research, we are aiming at better understanding how consumers perceive visual cues such as color and shape for a symbolic product, namely a flower, according to their gender. Only natural and non-artificial flowers have been considered. First, a flower is a singular product that has rarely been studied in marketing (Yue & Bee, 2010), however it is known to convey intrinsically rich symbolic associations (Cosgrove & Daniels, 2002). These symbolic meanings are commonly in French literature, paintings, and in our daily life: a flower enables someone to express or share a feeling. For example, a rose is commonly known to symbolize love, bluebell shyness and a violet faithfulness. Second, this product category is poorly marketed: a flower's design constitutes its principal and determining cue that characterizes and names it. Indeed, a flower and its species are identified by their visual inputs, their shapes and colors, which defines how consumers interpret them. Finally, individuals have a strong and almost personalized relationship with flowers because of their natural and living attributes. For all these reasons, flowers are as an anthropomorphic product.

In this paper, we therefore explore the symbolic meanings induced by the flower's design, validating the merit of some culturally known associations. Specifically, this research examines how color (brightness), shape (angular vs round) and type of a flower can forge brand personality (Aaker, 1997) and how gender can temper some identified dominant traits. This type of inferences between visual data inputs and personality traits has not been studied for such a symbolic product. In the following section, we provide an overview of the related literature on product design, its symbolic meanings and present the suggested links between the design dimensions and the brand personality traits, moderated by gender. After, the methodology and main findings of our experiment are been exposed. Finally, we conclude with some managerial and theoretical implications and suggestions for future research.

Design perceptions and brand personality

Brand personality traits and symbolic meanings

A brand's personality is defined as "the set of human characteristics associated with the brand" (Aaker, 1997). Brand personality is a key tool able to distinguish specific aspects of the brand. It is measured by a scale (validated across a lot of cultures and contexts, Aaker et al., 2001) made up of 42 items describing 15 facets and five dimensions that are 'Sincerity', 'Excitement', 'Competence', 'Sophistication' and 'Ruggedness' (Aaker, 1997). However the formation of personality traits remains complex. These five dimensions make it possible to define a brand or a product differently. They depict symbolic meanings that characterize a product and make it unique and distinctive in comparison with competitive brands (Freling & Forbes, 2005). This humanization makes the brand closer to consumers (Fournier, 1998). Most researches focus on the assessment, measurement or comparison of brand images as an input data, for the main purpose of positioning a product (Austin et

al., 2003, Azoulay & Kapferer, 2003; Geuens et al, 2009). However, little academic research have questioned how a brand image is created, specifically through its product design. What are the possible aspects of a product that would contribute to shape a brand image? How can a product design participate in the formation of meanings and symbolic associations?

A significant body of research attests to the key role played by product or package design in favorable consumer responses to a specific brand (Schnurr, 2017; Orth & Malkewitz, 2008; Bloch, 2011; Landwehr et al., 2012; Homburg et al., 2015). For example the product's shape or color can explain preferences towards one specific brand (Kumar et al., 2015); they convey or create some functional benefits or influence brand categorization (Berkowitz, 1987; Kreuzbauer & Malter, 2005). However, the way the product design influences symbolic associations (Ravasi & Stigliani, 2012) and expresses symbolic meanings (such as associations of sophistication, femininity, elegance, youthfulness, sincerity) (Creusen & Schoormans, 2005; Van Rompay & Pruyn, 2011; Brunner et al. 2016) still remains unexplained, even if modifying the characteristics of a product is known to induce changes to brand associations in consumer's memories. So far few studies have attempted to study the relationships between the extrinsic cues of a product and its symbolic associations, such as brand personality (Czellar & Denis, 2002).

The main purpose of this paper is to bring together both well-known marketing domains and to propose a new approach by considering the brand personality as the direct result of a design manipulation, rather than an outcome as a whole, independently of its antecedents. The specific symbolic associations we want to focus on here are those related to the brand identity of flowers.

Symbolic meanings of flowers

The leaving nature of flowers is the main reason for focusing on the flowers' brand identity and personality traits they express by their designs (Pantin-Sohier et al., 2012). Indeed, flowers belong to our daily lives; they are spoken to, treated like or protected like a human being. It is common to give to a flower the attributes of a person. In this sense, they are anthropomorphic i.e. a flower can be described according to traits that are usually used to describe a human character: healthy, true, modern, audacious, charming, elegant, or even strong. These traits form the basis for evaluating flowers. It is therefore legitimate to question the personality of a flower. Flowers could be considered as social stimuli and could be analyzed through a symbolic interactionism perspective (Solomon, 1983; Fournier, 1998). The strong attachment that individuals display towards flowers evidences a strong and balanced rapport with flowers, playing an active role in the interactive relation. Flowers bring to consumers comfort, friendship, support, emotions as much as individuals bring to the flowers by taking care of them or speaking to them. Because of the living nature and their anthropomorphic character, as well as through the rich record of associations they can evoke, we wish to study flowers as objects of consumption, through the personality traits of a brand (Aaker, 1997).

Even if flowers are not branded, their appearance can convey personality traits as fast-moving consumer goods do, and from there, it is possible to isolate the potential antecedents of their personality (that is its design without the biased effect of the brand). Our research aims to study the potential relationship between gender and personality traits associated to a product category (i.e. flowers in this case), with its perceived differentiation and personality dimensions.

Product design and brand personality

The design of a flower is clearly a determining attribute of choice and perceptions. According to Kreuzbauer & Malter (20005), aesthetically attractive products leads to positive brand evaluations. The first visible cue of a flower is its color, which can vary across its three-dimensional components (hue, brightness and saturation). Even though there seems to be little research concerning the floral area (Hula & Flegr, 2016), marketing researches have clearly highlighted how the form or the color of a product can influence consumers' perceptions in different consumption contexts (Mehta & Zhu, 2009; Cunningham, 2017). Color can indeed be an effective means of creating and sustaining brand and corporate images in customers' minds (Madden et al., 2000). Aslam (2006) has found that visual branding using sophisticated colors such as black or burgundy symbolizes elegance. Labrecque and Milne (2012) were the first researchers in marketing to establish solid foundations linking color perceptions, shape logo and brand personality. Their study illustrates the link between pink and sincerity, blue and competence, purple and sophistication. They have also demonstrated that the perceived excitement of a brand is positively impacted by red. Their manipulation of saturation underlines the negative effect of dark color on ruggedness. The same applies to flowers. The strength or the kind of love is nuanced by the color or brightness of a rose. For example, a pink rose for friendship or a red one for passion. When it comes to the meaning of flowers, it is common knowledge that tulips evoke more of a sincere love whereas roses more of a passionate one (Cellier & Starosta, 2000). Therefore, it is supposed that people are able to build meaningful personality traits using the brightness dimension of a flowers' color, hypothesizing that the species and the color of a flower can convey specific personality traits. This exploratory research leads us to restrict the hypothesis to the only links already verified in previously marketing researches.

H1. The type of flowers influences brand personality profile as:

(a) A rose will be perceived as more sophisticated than a tulip

(b) A tulip will be perceived as more sincere than a rose.

H2. Color brightness influences brand personality profile as:

(a) Flowers' species with lighter tones (pink) will be perceived as more sincere than products with darker ones (red)

(b) Flowers' species with darker tones (red) will be perceived as more sophisticated than products with lighter ones (pink)

(c) Flowers' species with darker tones (red) will be perceived as more excited than products with lighter ones (pink)

Shape can also be considered as a major determining factor in consumers' choices and may constitute an advantage over competing brands (Bloch, 1995). Until now, studies have mainly been focusing on cognitive responses such as attention, categorization (Kreuzbauer & Malter, 2005) or prototypicality (Veryzer & Hutchinson, 1998). Shape however can also induce emotions and beliefs such as quality (Berkowitz, 1987). Hevner (1935) analyzed the affective significations of the lines of a drawing. His results showed that curves are more sentimental, nostalgic, graceful and serene whereas straight lines are more serious, energetic and robust. For typography, rounded logos can be perceived as more "harmonious" than angular logo (Zhang et al., 2006).

Finally, marketing research on product personality have suggested that products could be gendered (Grohmann, 2009) by its design such as its appearance (shape, proportion), its color and shade (tones or contrast) or even its texture (Van Tilburg et al., 2015). It has therefore been established that consumers use brands for self-expressive purposes (Fournier, 1998; Sirgy, 1982). Some figures can help to express or re-inforce femininity or masculinity and can target specific customer segments. Bruner et al. (2016) have demonstrated that symbolic product design triggers images such as « feminine ». These associations impact on brands judgement. Van den Berg-Weitzel and Van de Laar (2006) have shown that masculinity is associated with angularity, strength and power with sturdiness, crudeness, thickness and wide shapes. Van Tilburg and colleagues (2015) have established that rounded and clear shapes increase femininity impression. Littel and Orth (2013) examined how visual and haptic package design characteristics singularly and jointly affect consumers' brand impressions. Some characteristics of color and shape can influence product gender. It seems that the lighter colors are perceived as more feminine (and therefore mostly preferred by women) whereas the darker ones as masculine (and therefore preferred by men) (Moss et al., 2006; Van Tilburg et al., 2015). Finally, Labrecque and Milne's (2012) results related to the combined effect of color and shape of a logo on brand personality have encouraged us to apply this principle also to a flower and see how its shape can increase or alter brand personality for this specific product.

Based on the literature review discussed above, we present two more hypotheses for our study:

H3. Shape influence brand personality profile as:

(a) Flowers' species with rounded petals will be perceived as more sophisticated than products with pointed petals.

(b) Flowers' species with pointed petals will be perceived as sturdier than products with rounded petals.

(c) Flowers' species with pointed petals will be perceived as more exciting than products with rounded petals.

H4. Brand personality profile is modified depending on gender as

(a) Women will perceived flowers' species as more sophisticated than males

(b) Men will perceived flowers' species as more exciting than women.

Following the approach of these past studies, the set of supposed links are summarized in Figure 1.

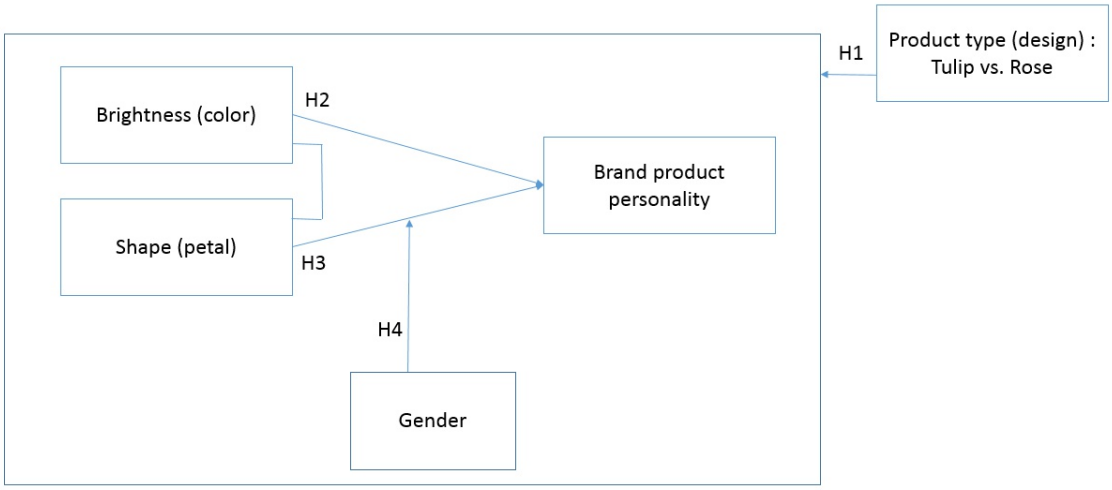

Figure 1. Conceptual model

Methodology

Design and sample

Does the specific design of a flower convey particular associations? How does the product design contribute to create personality traits? How gender interferes in these perceptions? In order to respond to these questions, an experimentation has been executed, aiming at measuring personality traits associated to color and petal shape for two variety of flowers. A quantitative study, with a self-administered questionnaire was designed to examine the direct relationship, as well as the combined effects of three design features - the color shading (dark vs light), the shape of a flower's petals (pointy vs round) and the type of the flower itself (rose vs tulip) – to the brand personality dimensions, based on a full within-subjects design (2X2X2). It results in eight experimental conditions, varying only on the

criteria of color and shape (Figure 2). As it was difficult to use 8 natural flowers prototypes varying only in color and / or petal shape, we used a visual presentation of the flowers instead, draw up by two graphic designers on the basis of digitized photographs. Participants were randomly presented with one of the 8 figures.

A total of 509 completed on-line questionnaires were returned. The average time of administration was quite short (only 5 minutes 22 seconds on average). All questions were mandatory. The conditions of administration were favorable for completing the questionnaire correctly and totally and obtaining a clean database. The sample was overwhelmingly feminine (70.9% are women). Participants were aged between 15 and 66 years old, but 63% of them were aged between 18 and 24 years old. 53% of the sample was made up of students, 15% were employees and 15% managers. The sample was spread across people leaving in urban (36%), suburban (46%) and rural (18%) areas.

Stimuli

We introduced both roses and tulips to oppose two types of feelings and different brand personality's dominant traits already acknowledged in literature, respectively sophistication and sincerity. The pink color has been chosen first as it is common to both types of flowers i.e. within the product category (Labrecque & Milne, 2013) and second because pink is (along with the red) one of the preferred color in flowers (Yue & Behe, 2010). It was expected to find a link between pink and sincerity (Labrecque & Milne, 2012). The brightness was handled using pink for a lighter color and burgundy for a darker one. It was assumed that a darker color could induce more excitement and sophistication traits (Aslam, 2006).

With regards to the shape of the flower, it has been reinforced on computer by either rounding off the petals or, to the opposite, by sharp cutting the edges of the petals to give it a pointed shape. We formulated the hypothesis that an angular form would induce a stricter, more severe, harsher character whereas a rounder shape would evoke more a softer and gentle feeling.

Scales and statistics treatments

If flowers, like individuals, could be described with adjectives, personality traits could be adapted to capture perceptions related to flowers. In order to measure these symbolic associations, we have retained the Aaker's (1997) scale that prevails in marketing literature, for its robustness and ability to produce its similar five factors in different markets and cultures (Aaker et al., 2001). Participants were presented with one of the eight flower pictures. Below the picture, they were instructed to think about the flower as a person and to define the personality traits that best defined it. Participants were asked to rate flower on Aaker's (1997) 42-items brand personality scale, using a five-points Likert scale from "strongly disagree" to "strongly agree".

We also collected demographic data related to the age, gender and the area of living (town, suburb or countryside). These control variables capture characteristics that could interfered the perceived personality traits.

The proposed model was tested using SPSS 24. An exploratory factor analysis was first completed, followed by a reliability analysis which main purpose was to validate the psychometrics qualities of the Aaker's scale. Then, the primary statistical undertaking was to run a multivariate analysis of variance, introducing the five dimensions of brand personality as dependent variables and the variety, brightness and shape as co-variables. Demographic characteristics were also integrated as moderator effects. With regards to all these control variables, only gender appeared to influence perceptions. The findings are presented below.

	ROSES		TULIPS	
	Sharp petal	Rounded petal	Sharp petal	Rounded petal
Dark Color	 1	 4	 5	 7
	N=64	N=61	N=62	N=67
Light color	 2	 3	 6	 8
	N=65	N=61	N=69	N=60

Figure 2. Experimental stimuli manipulated

Results

Validation of Aaker's scale structure

The factorization run on the 42 items of brand personality gives a 5-dimensional structure identical to that of Aaker's scale. Sincerity is defined using personality traits such as 'truthful', 'sincere', 'honest', 'genuine' but also as 'friendly'. Sophistication is described by characteristics such as 'womanly', 'glamorous', 'stylish', as well as 'sentimental'. Excitement is characterized with items like 'trendy', 'up-to-date', 'imaginative'. Competence is referred to as 'reliable', or 'robust'. Finally, the ruggedness is expressed by the western, 'exterior', and provincial character. At the end, 22 items were retained. The reliabilities are

acceptable for all dimensions (α(Sincerity) = 0.85; α(Sophistication) = 0.86; α(Excitement) = 0.81; α(competence) = 0.75) except for the ruggedness (α(Ruggedness) = 0.61).

Variations of perceptions

We conducted an analysis of variance to test the influence of flower's treatments (shape and brightness) on flower's brand personality, using the scores for each personality dimension.

First, in agreement with commonly and culturally known associations, roses are effectively perceived as significantly more sophisticated than tulips (F=11,208; 0,001). Tulips are perceived as more sincere (F=14,004; 0,000). The hypothesis 1 (a and b) is therefore validated. So, as assumed, both flowers are within their catalogue. A tulip seems to exhibit more noticeably excitement (F=11,061; 0,001) and ruggedness (F=26,394; 0,000). They also appear to be perceived as more modern compared to roses. They are largely anchored as an 'outdoorsy' type of flower, from the 'countryside', unlike roses. It has also been validated, as already demonstrated by Labrecque and Milne (2012), without formulated first the hypothesis, that sophistication is in direct opposition to ruggedness. However, there has been no noticeable difference between the perceived competence of each one of these flowers.

Second, the color shading (light vs dark) only affects some of the personality traits (Sincerity: F=10,697; 0,001; Competence: F=11,368; 0,001). Lighter colors are considered as more sincere, whatever the flower. Consistently with Labrecque and Milne's (2012) results, we have validated the second hypothesis which is that pink can be linked to the dimension of sincerity (H2a). Without having expected it, it has also been identified that darker colors are associated with more of a robustness and solidity (competence) than lighter ones. It has also been apparent that dark flowers are more stimulating (H2c) i.e. modern and trendy (Excitement F=4,365; 0,037) than lighter colors. However, H2b which suggests that dark colors impacts on sophistication (Aslam, 2006), has not been verified. As the result, the hypothesis H2 has only been partially validated.

Thirdly, the shape of the petal influences perceived personality traits. Indeed, the sharpness of the pointy petals is associated with excitement (F=4,308; 0,038) and competence (F=4,324; 0,038) (H3 b and c). The flowers with angular forms are perceived as stronger, more robust, and more solid than flowers with rounded petals. The hypothesis 3 is partially validated as the sincerity, sophistication and ruggedness dimensions do not react to the experimental conditions.

Finally, there is no interaction effect between shape, brightness and variety on brand personality traits, except with regards to the combination Brightness x Shape on the competence dimension (F=9,007; 0,003). The lighter colors and rounded shapes appears significantly less competent than the darker colors with pointed petals.

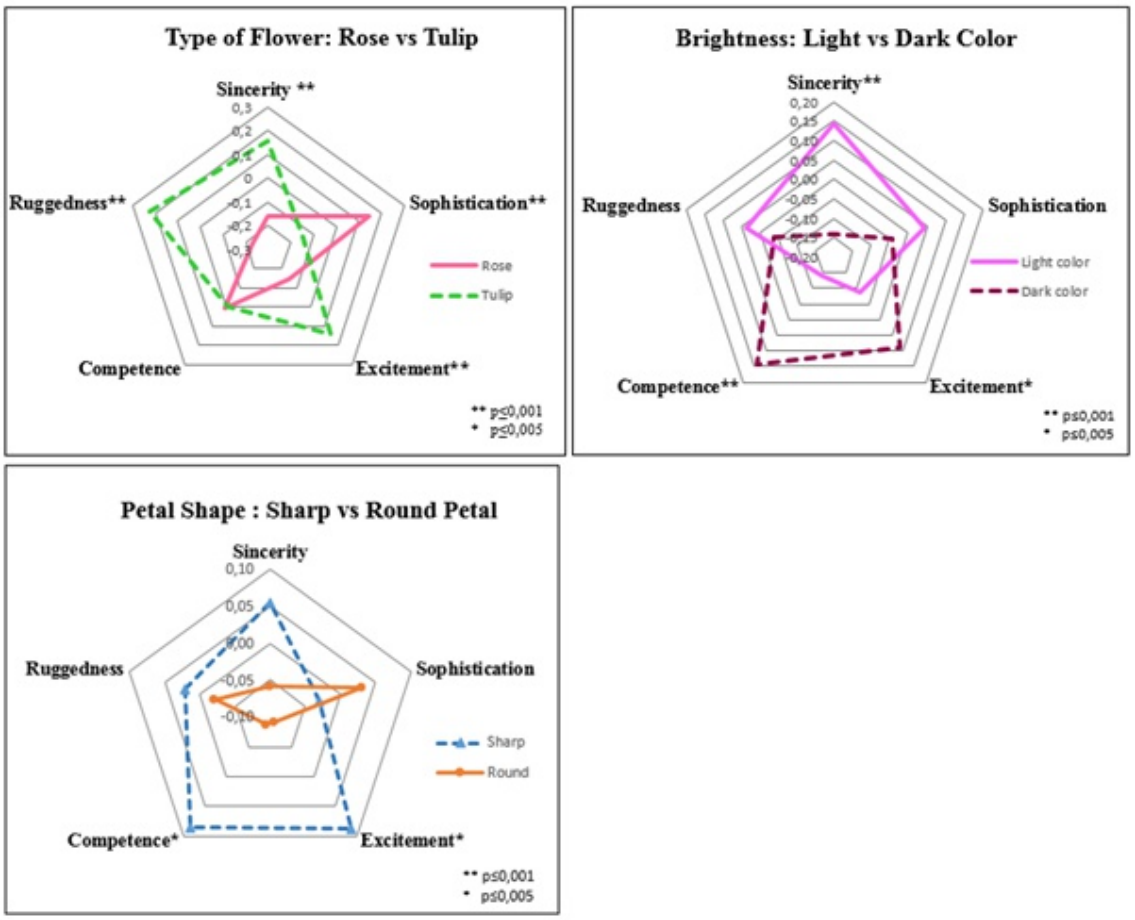

Figure 3. Flower Brand Personality by conditions

Sensitivity by gender

Other ANOVAs were performed to compare the average scores on the 5 personality factors depending on gender. Despite a sample overwhelmingly feminine, feminine sensitivity offers a significantly different reading to men's on 4 out of the 5 personality traits (Sincerity, Excitement, Competence – $p < 0.05$ and Sophistication $p=0.056$). Differences in brand personality profile by gender have been validated but the ultimate hypothesis H4 is not validated because the links verified are not those expected. Mancovas, with gender as a co-variable, evidence the gender moderation on the Variety-Sincerity link ($F=12,378$, 0.000), the Variety-Excitement link ($F=5,990$; 0.015) and the Brightness-Competence link ($F=7,866$; 0.005). The sincere character of tulips is mostly associated to the fact that most women view tulips as sincere. Contrariwise, the impact of the type of flower to the perception of excitement only holds true for men who tend to perceive tulips as more stimulating than roses. Unlike what was expected, the perceived competence of a flower associated with darker colors is reinforced in women ('solid', 'robust', 'reliable' and 'confident'). Whereas men do not seem to make any distinction between darker and lighter colors in terms of the competence of a flower.

This result confirms the necessity to differentiate men from women's perceptions of

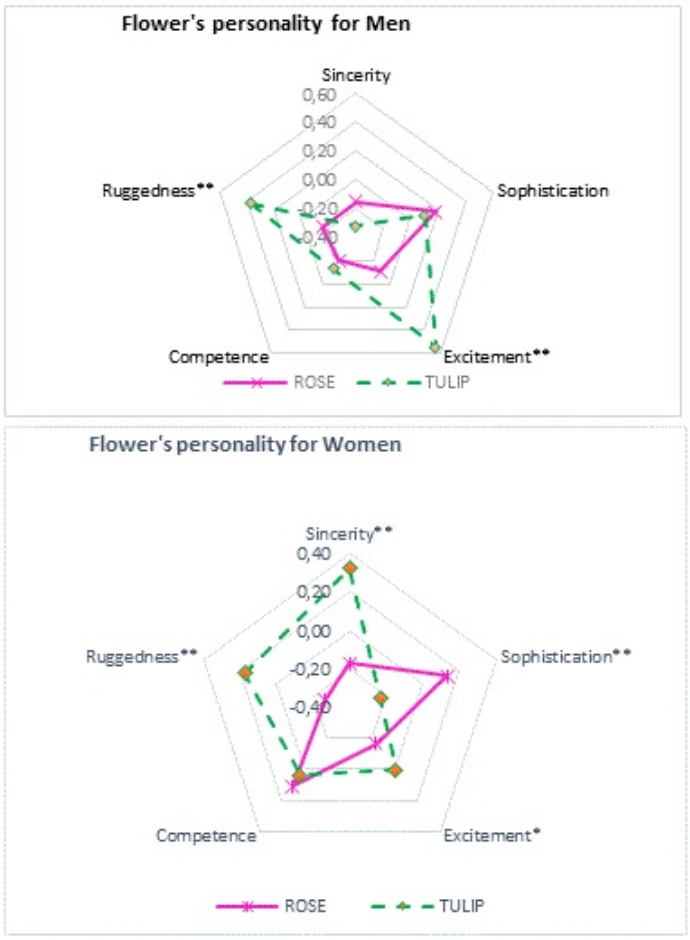

Figure 4: Flower variety by gender

flower personality because men and women tend to process information in a very different way (e.g. men tend to use more heuristic cues and women tend to process more detailed product information (Laroche et al., 2000).

Conclusions

This experimentation, setting of 509 French respondents, supplements previous research on the subject (Bloch, 1995, 2011; Kreuzbaeur & Malter, 2005; Van Rompay & Pruyn, 2011; Kauppinen Räisänen, 2014; Cunningham, 2017) and provides a better understanding of the way the design influences perceptions, for both dimensions, the product shape and color. More precisely, it has been possible to establish how symbolism of visual data can trigger symbolic associations, related to brand personality. Research on product design and personality traits in the marketing field has been limited so far (Labrecque & Milne, 2012; Orth & Malkewitz, 2008), however, our findings confirm the power of design to shape consumers' product image. Flowers, different in type, shape and color, express diverse dominant personality traits. Sincerity, excitement and ruggedness apply to tulips, like sophistication applies to roses. Darker colors with a sharper form convey competence. Our findings go in the same direction and conform to those of

Labrecque and Milne (2012). New links between color and excitement were also established, which had not been demonstrated before by these authors. We also succeeded to position gender as an important moderator variable. Product design form itself can reveal important information to and about consumers' feelings or personality traits (Solomon, 1983).

By establishing this new cause-effect pattern between design and brand personality, this research has been one of the few studies determining visual cues as antecedents to brand personality profile, rather than focusing on brand image as a whole, a referral point to compare or differentiate propositions values. Considering this type of inferences represents an innovative approach and offers, from both a theoretical and managerial point of view, determinant insights to convey and to valuate dominant traits. It provides marketing managers suggestions on how to create a unique personality profile of their product by certain aspects of its design.

Also from a methodological point of view, the anthropomorphic relationship has been evidenced for this product category, strongly charged of symbolic associations. This research therefore broadens the understanding of the creation of brand personality and how to trigger a brand personality change over time. This is particularly relevant to the real impact of a brand personality on significantly greater unique brand associations (Freling & Forbes, 2005) and on brand-related consumer responses (Grohmann, 2009).

Recommendations in terms of product positioning emphasizes on the key role of the design of flowers to express and support the value professionals intend to convey aligned to those commonly expressed by consumers. Working on the personality of flowers as a brand could reinforce the bond a consumer would express towards a flower, which in term, will comfort professionals having difficulties convincing consumers to buy some flowers. Modifying the color or the shape of the petals of a flower could therefore help marketing managers to pin-point a targeted personality attribute, in an aim to become more competitive. By doing so, as previously done for many other product categories (such as toys, cosmetics, etc …), flowers will also be segmented by gender.

Cultural interpretations of flower meanings and color should be considered in future research in this area. It would also be interesting to explore the role of color and shape on shoppers' perceptions by subculture as Chebat and Morrin (2007) did, in a retail context. Madden et al. (2000) show cross-cultural patterns of both similarity and dissimilarity in color preferences and color meaning associations. For Aslam (2006), a cross-cultural perspective of color research and application is imperative for developing global marketing strategies. Culture might indeed act as a moderator of the effect of color associations on product evaluation and adoption. It also remains to explore how human personality but also shopping motivations (e.g. shopping for oneself or for the others, utilitarian, hedonic or experiential motivation) could alter the impact of product design on personality traits and,

finally, on product choice. The choice of a kind of flower depends on the message you want to convey and on the reason you wish to buy it. Indeed, if you are intending to offer flowers for a funeral for example (utilitarian motive) and want to express your sincere condolences, you might choose a flower that conveys these personality traits such as a rose which is considered as a flower of remembrance. Flowers play a specific and symbolic role in this situation (Adamson & Holloway, 2013). Furthermore, a new experimentation can manipulate more contrasted and unexpected form and color stimuli to examine the acceptation of innovative products (e.g. with a prototypical distortion; Veryzer & Hutchinson, 1998) in the horticultural sector.

Other sensory data, such as texture or odors, may be considered to more accurately account for all the attributes in the formation of personality traits. Finally, two complementary scales could be used in order to diagnose and describe a given brand's personality (using BPS, Aaker, 1997) and also quantifying the impact of that brand personality on related consumer perceptions (using BPA, Freling et al., 2011).

References

Aaker, J.L. (1997). Dimensions of Brand Personality. Journal of Marketing Research, 34(3), 347–356.

Aaker, J.L., Benet-Martínez, V., & Garolera, J. (2001). Consumption Symbols as Carriers of Culture: A study of Japanese and Spanish Brand Personality Constructs. Journal of Personality and Social Psychology, 81(3), 492–508.

Adamson, S., & Holloway, M. (2013). Symbols and Symbolism in the Funeral Today: What Do They Tell Us about Contemporary Spirituality? Journal for the Study of Spirituality, 3(2), 140–155.

Aslam, M.M. (2006). Are you Selling the Right Colour? A Cross Cultural Review of Colour as a Marketing Cue. Journal of marketing communications, 12(1), 15–30.

Austin, J. R., Siguaw, J. A., & Mattila, A. S. (2003). A Re-examination of the Generalizability of the Aaker Brand Personality Measurement Framework. Journal of Strategic Marketing, 11(2), 77-–92.

Azoulay, A., & Kapferer, J. N. (2003). Do Brand Personality Scales Really Measure Brand Personality? Journal of brand management, 11(2), 143–155.

Berkowitz, M. (1987). Product Shape as a Design Innovation strategy. Journal of Product Innovation and Management, 4, 274–283.

Bloch, P. (1995). Seeking the Ideal Form: Product Design and Consumer Response. Journal of Marketing, 59(3), 16-–29.

Bloch, P. (2011). Product Design and Marketing: Reflections After Fifteen Years. Product Innovation Management, 28(3), 378–380.

Brunner C.B., Ulrich S., Jungen P., & Esch F.-R. (2016). Impact of Symbolic Product Design on Brand Evaluations, Journal of Product Management, 25(3), 307–320.

Cellier, A.L, & Starosta, P. (2000). Le langage d'Amour des Fleurs. Solar edition.

Chebat, J., & Morrin, M. (2007). Colors and Cultures: Exploring the Effects of Mall Decor on Consumer Perceptions. Journal of Business Research, 60, 189–196.

Cosgrove, D., & Daniels, ST. (2002). The Iconography of Landscape: Essays on the Symbolic Representation, Design and Use of Past Environments. Cambridge University Press.

Creusen, M.E.H, & Schoormans, J.P.L. (2005). The Different Roles of Product Appearance in Consumer Choice. Journal of Product Innovation Management, 22(1), 63–81.

Cunningham, M.K. (2017). The Value of Color Research in Brand Strategy. Open Journal of Social Sciences, 5(12), 186–196.

Czellar, S., & Denis J.-E. (2002). An Integrative Model of Customer-Based Brand Equity: a Psycho-Cognitive Perspective Recherche et Applications en Marketing, 17(1), 43–55.

Fournier, S. (1998). Consumers and their Brands: Developing Relationship Theory in Consumer Research. Journal of consumer research, 24(4), 343–373.

Freling, T.H., Crosno, J.L., & Henard, D.H. (2011). Brand Personality Appeal: Conceptualization and Empirical Validation. Journal of the Academy of Marketing Science, 39(3), 392–406.

Freling, T.H., & Forbes, L.P. (2005). An Empirical analysis of the Brand Personality Effect. Journal of Product & Brand Management, 14(7), 404–413.

Geuens, M., Weijters B., & De Wulf K. (2009). A New Measure of Brand Personality. International Journal of Research in Marketing, 26(2), 97–107.

Grohmann, B. (2009). Gender Dimensions of Brand Personality. Journal of Marketing Research, 46(1), 105–119.

Hevner, K. (1935). Experimental Studies of the Affective Value of Colors and Lines. Journal of Applied Psychology, 19(3), 385–398.

Homburg, C., Schwemmle, M., & Kuehnl, C. (2015). New Product Design: Concept, Measurement, and Consequences, Journal of Marketing, 79(3), 41–56.

Hůla, M., & Flegr, J. (2016). What Flowers Do We Like? The Influence of Shape and Color on the Rating of Flower Beauty. PeerJ, 4(29).

Kauppinen Räisänen, H. (2014). Strategic Use of Colour in Brand Packaging. Packaging Technology and Science, 27(8), 663–676.

Kreuzbauer, R., & Malter, A. (2005). Embodied Cognition and New Product Design: Changing Product Form to Influence Brand Categorization. Journal of product innovation management, 22(2), 165–176.

Kumar M., Townsend J.D. &Vorhies D.W. (2015). Enhancing Consumers' affection for a brand using product design, Journal of Product Innovation Management, 32(5), 716–730.

Labrecque, L.I., & Milne, G.R. (2012). Exciting Red and Competent Blue: The Importance of Color in Marketing. Journal of the Academy of Marketing Science, 40, 711–727.

Labrecque, L.I., & Milne, G.R. (2013). To Be or Not to Be Different: Exploration of Norms and Benefits of Color Differentiation in the Marketplace. Marketing Letters, 24(2), 165–176.

Landwehr, J.R., Wentzel, D., & Herrmann, A., (2012). The Tipping Point of Design: How Product Design and Brands Interact to Affect Consumers' Preferences. Psychology and Marketing, 29(6), 422–433.

Laroche, M., Saad, G., Cleveland, M., & Browne, E. (2000). Gender Differences in Information Search Strategies for a Christmas Gift. Journal of Consumer Marketing, 17(6), 500–522.

Littel, S., & Orth, U.R. (2013). Effects of Package Visuals and Haptics on Brand Evaluations. European Journal of Marketing, 47(1/2), 198–217.

Madden, T. J., Hewett, K., & Roth, M. S. (2000). Managing Images in Different Cultures: A Cross-National Study of Color Meanings and Preferences. Journal of international marketing, 8(4), 90–107.

McCarthy, M.S., & Mothersbaugh, D.L. (2002). Effects of Typographic Factors in Advertising-Based Persuasion: A General Model and Initial Empirical Tests. Psychology and Marketing, 19(7-8), 663–691.

Mehta, R., & Zhu, R., (2009). Blue or Red? Exploring the Effect of Color on Cognitive Task Performance. Science, 323, 1226–1228.

Moss, G., Gunn, R., & Heller, J. (2006). Some Men Like it Black, Some Women Like it Pink: Consumer Implications of Differences in Men and Women Website Design. Journal of consumer Behaviour, 5(4), 328–341.

Orth U.R., & Malkewitz, K. (2008). Holistic Package Design and Consumer Brand Impressions. Journal of Marketing, 72(3), 64–81.

Pantin-Sohier, G., Pantin, F., Sohier, A., & Serhal, R. (2012). L'acceptation de l'Innovation dans le Secteur Végétal : une Etude Qualitative Exploratoire. 11ème International Marketing Trends Conference, Venise, 19–21/01.

Ravasi, D., Stigliani, I. (2012). Product Design: a Review and Research Agenda for Management Studies: Product Design, International Journal of Management Reviews, 14(4), 464–488.

Schnurr B. (2017). The Impact of Atypical Product Design on Consumer Product and Brand Perception. Journal of Brand Management. 24, 609–621.

Sirgy, M.J. (1982). Self-Concept in Consumer Behavior: A Critical Review. Journal of consumer research, 9(3), 287–300.

Solomon, M.R. (1983). The Role of Product as Social Stimuli: A Symbolic Interactionism Perspective. Journal of Consumer Research, 10(3), 319–329

Underwood, R.L. (2003). The Communicative Power of Product Packaging: Creating Brand Identity via Lived and Mediated Experience. Journal of Marketing Theory and Practice, 11(1), 62–76.

Underwood, R.L., & Klein, N.M. (2002). Packaging as Brand Communication: Effects of Products Pictures on Consumer Responses to the Package and Brand. Journal of Marketing Theory and Practice, 10(4), 58–68.

Van den Berg-Weitzel, L., & Van de Laar, G. (2006). The Third Dimension, ADMAP, 41, 9, 46–47.

Van Rompay, T. J. L., & Pruyn, A. T.H, (2011). When Visual Product Features Speak the Same Language: Effects of Shape Typeface Congruence on Brand Perception and Price Expectations. Journal of product innovation management, 28(4), 599–610.

Van Tilburg, M., Lieven, T., Herrmann, A., & Townsend, C. (2015). Beyond "Pink It and Shrink It": Perceived Product Gender, Aesthetics, and Product Evaluation. Psychology & Marketing, 32(4), 422–437.

Veryzer, R. W., & Hutchinson J. W. (1998). The Influence of Unity and Prototypicality on Aesthetic Responses to New Product Designs. Journal of Consumer Research, 24(4), 374–394.

Yue, C, & Behe, BK. (2010). Consumer Color Preferences for Single-Stem Cut Flowers on Calendar Holidays and Noncalendar Occasions. HortScience. 45(1), 78–82.

Author information

Laure Jacquemier-Paquin works as Associate Professor at Aix-Marseille University, CERGAM. Her research interests include consumer behavior, sensory marketing and work commitment. She can be contacted at laure.paquin@univ-amu.fr

Gaelle Pantin-Sohier works as Full Professor at Angers Université, GRANEM. Her research interests include: Consumer Behavior, Sensory Marketing, Design and Packaging. She can be contacted at gaelle.pantin-sohier@univ-angers.fr

Caroline Lancelot-Miltgen works as Professor in Marketing at Audencia Business School, France. Her research interests include: information privacy, technology, innovation and consumer behavior. She can be contacted at clancelot@audencia.com