



## **Packaging design and aesthetic appreciation: Looking for a moderate atypicality effect**

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### **Abstract**

*Purpose: The aim of this paper is to study the relation between the perceived typicality of a wine label and its aesthetic appreciation. Furthermore, this work intends to highlight the moderating role of some consumer characteristics on the nature and the intensity of the relationship. The objective is to check if, for some individuals, it's possible to verify the "moderate atypicality effect" described in the Berlyne's theory.*

*Methodology: Three Bordeaux wine labels providing the same information but with different visual aspects are tested on a sample of 780 individuals. The respondents evaluate each label in terms of perceived typicality and aesthetic appreciation.*

*Findings: The results indicate a strong preference for the most typical label: we never verified the theory of a moderate atypicality effect but rather the theory of the preference for the prototype. However, several individual's characteristics have a moderator effect on the relationship. This last one doesn't change of nature (it never becomes curvilinear) but changes of intensity.*

*Implications: From a theoretical point of view, this research allows to confront two theories which seem contradictory. The literature review and the results indicate that the theory of the preference for the prototype seems more likely to be empirically verified than the theory of a moderate atypicality effect. From a managerial point of view, this research provides some answers to a problem recently raised with representatives of the wine industry: given that consumers seem to prefer traditional labelling, under which conditions is it possible to differentiate a product in terms of design? Our results indicate that the acceptance of atypical designs is linked to some individual's characteristics such as the level of expertise or involvement in regard of the product category. Therefore, this study highlights the segments of consumers which are more able than others to accept atypical designs.*

**Key words:** design, packaging, label, typicality, aesthetic

### **Packaging design and aesthetic appreciation: Looking for a moderate atypicality effect**

Several studies have confirmed, in the case of all product categories, the existence of specific visual codes in terms of design (Dano, 1996; Heilbrunn, 2006; Bobrie 2009). Those visual codes are defined as forms, colours, typographies, page layouts, illustration styles and themes that are most used in the product category (Celhay, 2010). Considering the existence of such visual codes, two choices are possible in matters of package design (Heilbrunn, 2006): the first one consists to conform to those visual codes in order to reassure the consumers and give him what he expects to see on a given product category. The second, conversely, consists to get out of these codes. This second strategy allows to surprise the consumer, and so to catch his attention or to stimulate his interest. It allows to differentiate a brand from a visual point of view and so to communicate a different brand positioning. Finally, it allows – by a contrast effect – to gain in visibility on the selling point. Being conscious of such advantages, a lot of brands - as Badoit, Fructis or Vittel – have chosen this strategy these last years. Insomuch that Divard and Urien remarked already, in 2001, a tendency to transgression in matters of package design.

On the category of Bordeaux wines, however, the operators seem to encounter real difficulties in making the same break from the visual codes traditionally used in their region. According to twenty wine professionals, interviewed during a preliminary study, the explanation lies with the French consumer, who, whether young or old, novice or expert, is highly conservative when it comes to wine and prefers the more traditional bottles in terms of visual aspect. The level of risk associated with the consumption of wine in France being high, consumers prefer wines with traditional labels in order to reduce perceived risk (Celhay et Trinquecoste, 2008).

In order to face this difficulty and because the real aim of all package design is to find a balance between conformity, which reassures the end-user, and originality, which creates an element of surprise and allows a product to stand out (Heilbrunn, 2006), in this work we tried to better understand the extent to which and under what conditions the originality of wine labelling can, despite everything, be appreciated by the consumer. First, by reviewing all the academics works which have already studied the question. Then, by carrying out a study involving 780 respondents.

#### **Package design, atypicality judgement and aesthetic appreciation:**

In the marketing literature, the concept of visual codes (shapes, colours, typographies, etc.) that correspond to specific product categories (Bordeaux or Burgundy wines, for example) appears to be related to the notions of perceived typicality, cognitive categories and family resemblances. Indeed, those visual codes being defined as the colours, fonts, forms, illustrations... the most used within the product category ; the more a package design will conform to the visual codes of its category, the more its degree of family resemblance will be high and the more it will be perceived as typical (Celhay, 2010). Conversely, the more it will get out of those codes, the more it will be perceived as different and so atypical. Thus, in this work, we will study the question of the acceptation of a packaging being in rupture with the visual codes of its category through the typicality judgement. The choice of this theoretical framework seems even more relevant that a lot of academics works studying the impact of the typicality judgement on the consumer preferences already exist.

Two categories of works can be identified. The first emerged from the theory of the mere exposure effect (Zajonc, 1968) and the theory of preference for the prototype (Whitfield and Slatter, 1979). According to these theories, the more a stimulus is familiar, the more it will be

perceived as typical of a given category, and the more it will be appreciated from an aesthetic point of view. The relationship between perceived typicality and aesthetic appreciation should therefore be linear and positive, and the stimuli most favoured from an aesthetic point of view should be those that are the most typical.

The second category of works emerged from the theory developed in experimental aesthetics and psychology by Berlyne (1970) then adapted to marketing by Cox and Locander (1987), Meyers Levy and Tybout (1989) and Stayman et al (1992). These studies argue that, on the contrary, individuals tend to value moderate novelty because it provides them with greater stimulation and therefore greater pleasure. Berlyne sees novelty as « encompassing a new or unusual combination of attributes » (Cox et Locander, 1987).

However, our review of the literature reveals a lot of empirical verifications for the first theory (Whitfield, 1983; Purcell, 1984; Pedersen, 1986; Martindale and al., 1988, 1990, 2005; Veryzer and Hutchinson, 1998; Campbell and Goodstein, 2001) and only one empirical validation of the inverted U curve described by Berlyne (Schoormans et Robben, 1997).

This observation lets Martindale et al. (1990, 2005) to note that the verification of Berlyne theory seems to be “*more the exception than the rule*”.

Our first hypothesis is therefore:

***H1: The aesthetic appreciation of a wine label has a positive and linear correlation with the degree of perceived typicality of its design (the more a wine label is perceived as typical of its region, the more it will be favoured from an aesthetic point of view by the consumer).***

This first hypothesis doesn't bring any managerial implication in regard to our problematic. Indeed, its verification would indicate that the consumers would always prefer, from an aesthetic point of view, the labels which are the most conform to the visual codes of the category. This result would not bring any perspective in terms of differentiation by the visual aspect of a product. However, as said Hekkert and al. (2003), the literature review also indicates that a lot of individual and contextual variables seem likely to moderate the relationship between perceived typicality and aesthetic appreciation. In this work we will study the impact of the individual ones. Our main idea being that: if the relationship is linear and positive for most of the people, we can maybe observe a moderate atypicality effect on some segments of respondents.

The literature review that we made allowed us to identify 9 individual variables likely to moderate the relationship between typicality and aesthetic appreciation. Thus, it appears possible to formulate the following hypotheses:

***H2: The consumer general tendency to innovate moderates the relationship between perceived typicality and aesthetic appreciation: the relation is stronger for the respondents presenting a low tendency to innovate.***

***H3: The consumer knowledge of the product category moderates the relationship between perceived typicality and aesthetic appreciation: the relation is stronger for the respondents presenting a low knowledge of category.***

***H4: The involvement of the consumer in the product category moderates the relationship between perceived typicality and aesthetic appreciation: the relation is stronger for the respondents presenting a low level of involvement.***

***H5: The consumer perception of the product category as a way to express is individuality moderate the relationship between perceived typicality and aesthetic appreciation: the relation is stronger for the respondents considering that the product category presents a low “sign value”.***

**H6: The importance the consumer concedes to the visual aspect of the products moderates the relationship between perceived typicality and aesthetic appreciation: the relation is stronger for the respondents presenting a low degree of CVPA (see Bloch et Al. 2003).**

**H7: The perceived risk the consumer associate to the product category moderates the relationship between perceived typicality and aesthetic appreciation: the relation is stronger for the respondents who perceived the consumption in the product category as very risky.**

**H8: The age of the respondent moderates the relationship between perceived typicality and aesthetic appreciation: the relation is stronger for the older respondents.**

**H9: The gender of the respondent moderates the relationship between perceived typicality and aesthetic appreciation: the relation is stronger for men than for women.**

**H10: The level of education of the respondent moderates the relationship between perceived typicality and aesthetic appreciation: the relation is stronger for the respondents presenting a low level of education.**

### Methodology:

#### Stimuli choice:

After a pre test of 12 labels on a sample of 80 respondents, 3 labels allowing to operationalize 3 different levels of perceived typicality were choose. The labels being conceived in order to presenting the same information but different visual aspects. The pre test confirms, as in a previous study (Celhay et Passebois, 2009), that the level of conformity to the visual codes of the region is positively correlate to the perceived typicality.

**Table 1: stimuli (labels)**

Marquis de Greysac	Libertin de Lussac	Petit Pourret
		
<b>Typical</b>	<b>Moderately atypical</b>	<b>Atypical</b>

#### Data collect:

The data were collected thanks to a questionnaire on the Internet. 780 workable questionnaires were collected and analyzed. Each respondent had to evaluate the three labels (within subject design). The size of the sample is due to the fact that this survey has been conducted in a PhD process of investigation.

The perceived typicality, the aesthetic appreciation and the different individual variables were measured thanks to multi items scales found in the marketing literature. All the scales we choose, except the CVPA scale (Bloch and Al., 2003), had already been tested in a French context. The CVPA scale was translated by 3 different bilingual researchers and we choose the translation which allows a consensus within these researchers. It was then pre tested thanks to two factorial analyses (and exploratory one and then a confirmatory one). After suppressing 3 items the reliability and the validity of the scale were satisfying.

**Data analysis:**

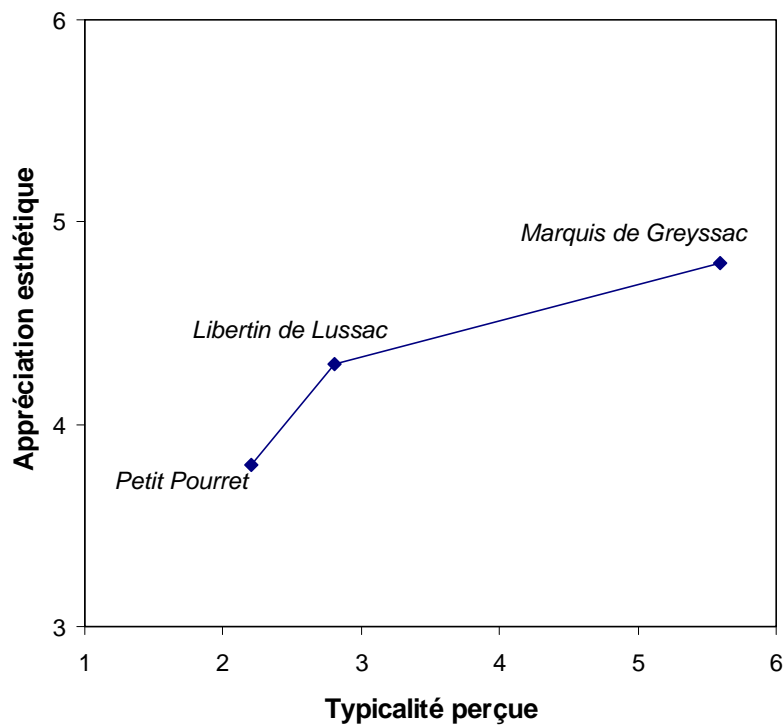
In order to study the relationship between the perceived typicality and the aesthetic appreciation of a wine label, we conducted *t* tests of mean comparisons for paired samples (this test allows to compare the mean scores of perceived typicality and aesthetic appreciation of the three labels). Then, we conducted linear and quadratic regression analyses of the aesthetic appreciation on the perceived typicality for the three labels.

**Results:**

**Verification of Hypothesis 1:**

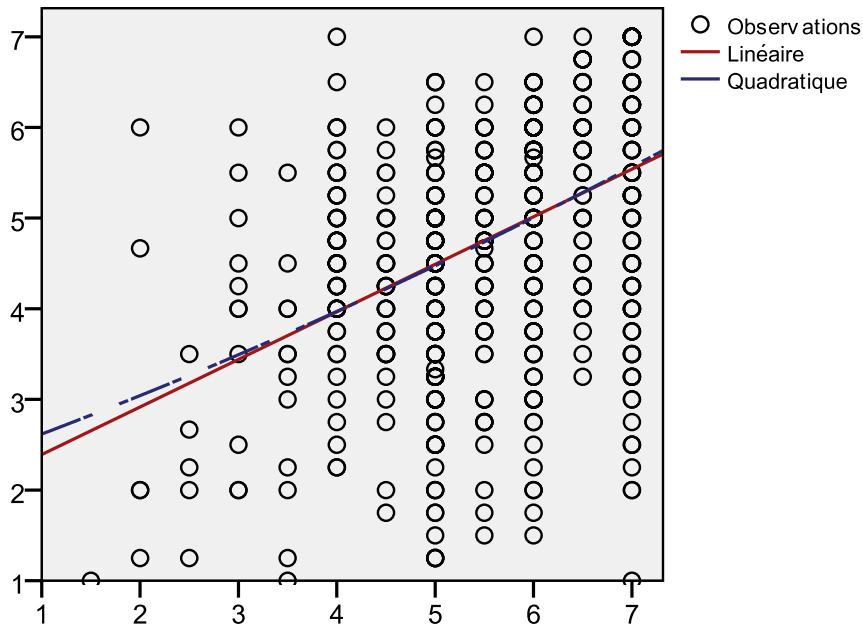
The results of the *t* test of mean comparisons indicate that the more a label is perceived as typical, the more it obtains a high score of aesthetic appreciation. This first result allows verifying the theory of the preference for the prototype. We don't observe a « moderate atypicality effect ».

**Figure 1: linking the mean scores of perceived typicality and aesthetic appreciation for each label**



In order to confirm this first result, we then compared the linear and quadratic model of regression between aesthetic appreciation and perceived typicality. This allows us to study the nature of the relationship label by label and see if it's linear or curvilinear (following an inverted U curve). For the 3 labels we obtain the same results. The following figure presents the result for the first label:

**Figure 2: comparing the linear and quadratic models of regression between aesthetic appreciation and perceived typicality for the Marquis de Greyssac label.**



For the three labels the linear model is the one which better adjusts the scatter plots. The quadratic model is never significant. The relationship is indeed linear and positive for the three labels. H1 is validated.

#### **Verification of H2 to H10 :**

In order to test the hypothesis relative to the moderating effect of the individual variables we divided our sample in two parts (for example: the experts respondents vs the novices ones). Then we made the *t* test of mean comparisons and the regression analysis on each sub sample. When the relationship seems to be moderate by the individual variable, we made a Chow test in order to verify if the moderating effect is significant. The results are synthesized in the following table:

**Table 2: Verification of the moderating effect of the individual variables**

H2	<i>The consumer general tendency to innovate moderates the relationship between perceived typicality and aesthetic appreciation</i>	Validated
H3	<i>The consumer knowledge of the product category moderates the relationship between perceived typicality and aesthetic appreciation</i>	Validated
H4	<i>The involvement of the consumer in the product category moderates the relationship between perceived typicality and aesthetic appreciation</i>	Validated
H5	<i>The consumer perception of the product category as a way to express is individuality moderate the relationship between perceived typicality and aesthetic appreciation</i>	Rejected
H6	<i>The importance the consumer concedes to the visual aspect of the products moderates the relationship between perceived typicality and aesthetic appreciation</i>	Rejected
H7	<i>The perceived risk the consumer associate to the product category moderates the relationship between perceived typicality and aesthetic appreciation</i>	Validated
H8	<i>The age of the respondent moderates the relationship between perceived typicality and aesthetic appreciation</i>	Validated
H9	<i>The gender of the respondent moderates the relationship between perceived typicality and aesthetic appreciation</i>	Validated
H10	<i>The level of education of the respondent moderates the relationship between perceived typicality and aesthetic appreciation</i>	Validated

### **Discussion and conclusion :**

The inverted U curve described by Berlyne is never verified. Furthermore, the moderate atypicality effect is never verified whatever the characteristics of the respondent are.

Actually it is possible to verify a moderator effect of some individual variables on the relationship but this moderator effect is not sufficiently powerful to change the nature of the relationship it just changes the intensity of the relationship (the relationship becomes weaker but never becomes curvilinear).

Despite the fact that we did not verify the Berlyne theory, this work brings some managerial implications. One of these main implications is relative to the segmentation and the targeting. Because the relationship between perceived typicality and aesthetic appreciation is weaker for some segments of respondents it's imply that some segments of consumers - for example, the respondents with a high level of education and a high level of expertise in regard to the product category - seem more likely to accept moderate atypical design.

The main limitations of our study is that it's limited to one product category and that it doesn't take in account the impact of the contextual variables. So, in order to complete this work, it could be interesting in the future to test our hypothesis on new product categories and to define an experiment allowing testing the impact of some contextual variables such as, for example, the number of references on the selling point. Finally, it could also be interesting to duplicate the Zajonc experiment in order to check if the acceptability of an atypical packaging could be better when the frequency of exposure to that packaging increase.

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