Do Brand Mascots Design Characteristics matter to Child Recognition?

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Abstract

This research addresses the question of how mascots design characteristics affect children recognition of this type of brand sign. Regarding the literature, it was clear for us the important contribution in studying the short and long term recognition. It is found based on HOMALS analysis, that the different design characteristics associated with the universal design principles (abstraction, figurativity, symmetric, asymmetric, round and angular forms) stimulated different levels of recognition according to the children gender and age.

The study contributes to our understanding of which mascot design characteristics increase the effectiveness of non-verbal communication.

Key Words: Brand, Mascots, Children, Attitude, Recognition

INTRODUCTION

Children are seen today as a powerful and attractive market segment, not only by marketing practitioners, but also by the academy (Peacheaux & Derbaix, 1999). In the study developed by Macklin (1996), on the learning of brand names from visual cues, it was concluded that using two visual cues (figures or colours), improves the memorisation of brand names. However, it wasn't made any reference to the characteristics of those cues. The present investigation tries to produce an answer at this level. If we can consider the fact that visual cues improve brand memorisation, with this work we intend to study one of those cues, the mascot, which is considered to be one of the most important when the target segment is children (Kirkpatrick, 1952; Mizerski, 1995; Montigneaux, 2002; Keller, 1997. Marketing literature doesn't have a systematic research about the effects of mascots in children. The most relevant discussions only enhance the mascot importance as a crucial brand sign in children, without producing a clear and understandable group of indications to guide the marketing practitioners. The most frequent practice in marketing is the selection of

mascots based on an idiosyncratic vision. In this perspective, it was considered crucial, in the first stage of our investigation, to define the design characteristics of the brand mascots, to allow the empirical analysis of the attitudes children establish with each one of those design characteristics.

The aim of this study is to give an answer to the following research questions:

1. Mascots stimulate always a favourable attitude in children, or that favourable attitude depends on their design characteristics?
2. If there are different attitudes, what are the mascots design characteristics that best sustains the formation of a favourable attitude of children towards the brand mascot?

MASCOT CONCEPT

Brand mascots represent a special type of signs, particularly important in the children's segment, because they allow children to establish an emotional relationship with the brand, and simultaneously they favour their memorisation (Brée & Cegarra, 1994). According to Keller (1998), mascots are useful to create awareness, because being rich in images and colour, they catch the consumer's attention. Beyond that, brand mascots may help the communication of key attributes of the product / organisation. In Aaker's perspective (2000), if the consumers have strong feelings over a mascot, they will probably create favourable perceptions of the products or organisations associated to that mascot. Brée & Cegarra (1994) differentiate two types of mascots, the advertising mascots and the brand mascots. The first ones promote the product's valorisation through the association with the mascots they use, or they can promote the creation of the product concept, when the mascot is a user of the brand. These mascots are mainly used in the teenager / adult segments, where the symbolic function of the brand is very present. As far as the brand mascots are concerned, these can have several functions: to be the main visual expression of the brand (through a representation more or less anthropomorphic); to represent an iconic complement of the brand; and in both cases to establish the affect connection to the brand. Based on the results of their study, Brée & Cegarra (1994) stated the necessity of analysing the dimensions that form the mascot, the elements connected with its anatomy or its expressions, in order to study the different impacts on children. Concerning the mascots typology, it is indeed very diverse (Mizerski, 1995; Montigneaux, 2002; Pecheaux & Derbay, 1999), but the systematisation of typologies is still very

incipient. According to Kirkpatrick (1952), the selection of a mascot can be done based in three options; one has to do with the analysis of animated beings and the selection of one with the intended associations; another one, concerning the objects that can suggest some personality or animation; finally, to establish a real human mascot. Each one of these options replicates in feminine mascots, masculine, asexual, expressing action, static, with humour, without humour, etc. Pecheaux & Derbaix (1999), identify two types of mascot representations: human representations very used in products like candies, whose symbolic foundations of the brand are supported by the adventures of the mascots and their imagination; and animal representations, usually used in products with important nutritional qualities, like breakfast cereals, given the spontaneous associations of vitality and dynamism conveyed by certain animals. Mizerski (1995) says that mascot typology is very important, considering that its influence in children can be significantly different. However, he doesn't suggest any characterisation.

THE MODEL

Considering that the mascot is one of the most relevant brand signs in the children's segment, it seems crucial to understand what type of attitudes children establish with the different typologies of mascots associated to different design characteristics. The model presented has the individual as the analysis unit, which determine the low number of highly explainable variables. This perspective allows that the future results are to be determined by variables controlled in the investigation (Fig.1: Model). In this article, we will just present the results about the recognition measure.

METHOD

The paradigm of the investigation was predominantly positivist, intending a uniformity of relations between the form of the behaviour and its meaning, so as to allow an adequate operationalisation of the variables, objectivity, replicability e causality (Bryman, 1984; Erickson, 1986). In this study, we applied a highly frequent method in the domain of the experimental aesthetics, where the main empirical studies on design appear. Henderson and Cote (1998), also applied this method in the study carried out on the selection and modification of logos, thus validating its use on the domain of the strategies of the brand signs.

Independent Variables

So as to select the design characteristics, in a first stage, the study was based on the characteristics analysed in the investigation of Henderson and Cote (1998): natural, representative, organic, harmonious, balanced, symmetric, elaborated, complex, active, depth, parallel, repetition, proportion and round. So as to avoid an experimental device excessively complex, the graphic dimensions based on the contradictory binary relations were reduced. According to the logic construction of semantic categories and of the structural semiotics (Floch, 1989 in Lencastre, 1997), three semantic categories were created: abstract vs figurative; symmetric vs asymmetric and round vs angular (Fig.2: Stimulus). On the conceptual point of view, the semantic categories allow the comparison of two comparable terms, ensuring the exactness of the analysis. On the experimental point of view, they allow the definition of the stimuli and the verification of its relevancy on the recognition level (short and long term) (Floch, 1989, 2002; Lencastre, 1997).

Dependent Variables: Attitude

Attitude appears in several studies as a central variable of various models of consumer behaviour (Kraus, 1995). However, defining and evaluating attitudes implies an approach with several perspectives. To some authors, attitudes are seen with affect, measured from indicators of emotions and attitudes (Cohen & Areni, 1991). Other authors, with a more limited perspective, define attitudes as judgements, positive or negative evaluations of a specified object; Some don't even differentiate affect from judgement (Eagly & Chaiken, 1993); Another group of authors defines attitude based on two dimensions, the affectiveate and the cognitive. This perspective has a significant empirical support (Bagozzi & Burnkrant 1979, Batra & Athola 1990, Breckler & Wiggins 1989, Crites, Fabrigar & Petty 1994, Eagly, Mladinic & Otto 1994, Bagozzi, Gopinath & Nyer 1999). Very interesting were the results of Derbaix's (1982) work, which show the direct relation between attitude and behaviour. Departing from an analysis of the hierarchy of the advertising effects, this author verified that children tend to have an affective reaction to stimuli, followed by a specific behaviour, appearing cognitive reaction in the end. According to Eagly & Chaiken (1993), an individual, to form an attitude, must have an evaluation reaction of the attitude's object. This evaluation may or may not be clearly expressed; it may

be cognitive, affective or behavioural. A mental representation of the attitude will be stored in memory and activated whenever the individual sees the object. In the model suggested for this investigation, it is crucial to define the way to evaluate attitude, so that the selected measures can have the necessary psychometric qualities in order to assure their reliability and validity. In this perspective, the cognitive dimension will be evaluated according to the recognition indicator and the mascot association to a specific category; the affect dimension will be evaluated based on a facial scale applied by Mizerski (1995).

Dependent Variables: Recognition

The selection of recognition as an indicator of attitude's cognitive dimension, is connected with three key statements that are inherent to it (Macklin, 1996):

1. Type of expected answer, namely verbal answer vs. non-verbal answer;
2. Familiarity of the study population related to the type of demanded answers;
3. Level of support necessary to obtain answers to the questions;

Due to this group of reasons, recognition became the dependent variable more adequate to the studies with children, mainly when compared with recall. Recognition allows the application of non-verbal measures (later their pertinence will be explained), this indicator permits the use of games with children, with whom they are perfectly familiarised, and finally, it doesn't imply practically any help to obtain the answers, which is more adequate (Singh & Rotschild, 1983). According to the literature, we observed that the investigation in terms of long term recognition, by children, is insipient (Austin and Reed, 1999; Macklin, 1994, 1996; Mizerski, 1995; Raju and Lonial, 1990; Rossiter, 1975). Thus, the present study assessed the mascot recognition in a short and long term.

METHODOLOGY

The sample consists in 575 children, 51% boys and 49% girls divided by the four years of primary school (25% children from the 1st year, 6 years old, 24% seven years old from second year pupils, 27% 8 years old from the 3rd year and 24% 9 years old from the 4$^{th\ year}$). According to the number of stimuli and of the variables, and according to studies already carried out in the scope of the experimental aesthetic, we made use of the definition of the multiple samples, each one to test each mascot.

- **Experimental support**

The effort of neutralisation of the effect history has limited us to the creation of fictitious mascots, as each prototype is associated with a certain factor of memorisation and affective. Furthermore, to each of the experimental groups, only one stimulus was presented, in order to avoid the effects of learning. Based on the first results concerning affection, we verified that abstract mascots generate low levels of affection and always inferior to the affection of the figurative stimuli. Thus and according to literature, we decided to test only the recognition of the figurative mascots, as the abstract mascots do not generate affection as far as children are concerned.

- **Procedure**

The data collection was carried out for three months by a team of graduates supervised by the researcher. They were trained in the interview techniques and in the ethical principles inherent to investigation before children, and they were not aware of the propositions of the investigation. Children were selected by their respective teachers in groups of three and guided to a school multipurpose room, divided into three separate areas. During the whole of the research process, there was a great concern of standardising the largest possible number of elements, such as the room, layout, games, etc. On the other hand, based on the assumption that acquaintance of the spaces and the resources used is fundamental to obtain the comfort of children, the study was fulfilled in their respective schools, thus ensuring their well being and integration. Every child was interviewed individually. Each child was taken to a room made available by the school. Each child was told that he/she was to play a game and see some figures. After a short warm up conversation (what's your name, how long have you been attending this school, what's the name of your teacher), an A4 size card was shown with six images of mascots. Of the six mascots, only one concerned the object of the study. Each child looked for 4 seconds to the card. After, a 15-minute entertainment activity was held. After this period, a new card was shown with 6 mascots, in which the mascot under study was repeated and five new mascots were added. At this moment, each child was asked "did you see any of these cartoons in the previous card?". This process allows for an immediate measure of recognition. After a week, a new card was shown, keeping the mascot under study and adding 5 other

entertainment mascots. At this moment, each child was asked “last week, did you see any of these cartoons?”. This process has provided us with the data for the long-term recognition.

RESULTS

The data analysis proceeds in two steps. The first one investigates the direct impact of the mascot’s design characteristics on the recognition level among the children. This evaluation starts with the performance of chi-square independence test that confirms (1) the existence of significant dependence relationship between the short term and long term recognition; (2) short term recognition and the type of the stimulus; (3) long term recognition and school grade (Figs. 3, 4, 5 and 6). The nature of these relations was than identified and described through the application of a homogeneity analysis (HOMALS). In the second analytical step a cluster analysis were applied to validate the HOMALS results and also to define groups of children considering their recognition answer to the different type of mascot’s design characteristics. Based on the eigenvalues, we decided to proceed the HOMALS interpretation observing solely the first two dimensions (Fig. 7). The first dimension discriminates significantly the recognition (short and long term) of the stimulus; the second dimension discriminates the gender and the type of the figurative stimulus (mascot asymmetric, symmetric, asymmetric round, asymmetric angular, symmetric round and symmetric angular). The perceptual map representing the quantification of the variables is presented in figure 8. From the observation of figure 8, some conclusions can be addressed:

- Dimension 1, represented in the horizontal axis, essentially distinguishes levels of recognition associated with the different type of stimulus;
- Dimension 2, distinguishes the gender and the type of stimulus.

As said before, after the HOMALS analysis we conducted a k-means cluster analysis based on a three cluster solution. Figure 9 presents the final centers of the three clusters analysis. In general the classification obtained corroborate the HOMALS results. Describing now the profile of the three groups produced by each cluster analysis (see Fig. 10), we can assume that cluster 1 is related with high levels of recognition of asymmetric and angular asymmetric mascots, especially among boys; cluster 2 is associated a high levels of recognition of symmetric and figurative mascots among girls, and cluster 3 is associated with low recognition, especially among the younger children and with the round symmetric mascots.

STUDY CONTRIBUTIONS AND LIMITATIONS

At the level of the fundamental investigation, the study intends to improve the knowledge of mascots within the context of management and brand communication. Considering that the mascot is one of the brand signs more frequently used in the children's segment, the creation of a typology will be a strong contribution to its analysis and definition. On the other hand, the improvement in the knowledge about the way children react to brand mascots will develop the conceptual frame of children's behaviours and attitudes in the context of the marketing literature.

At the level of practical application, the investigation aims at identifying and characterising which mascots design characteristics favour the formation of a positive attitude in children, thus guiding their conception and design whenever the children target is at stake.

The results of this study will always be limited to the defined mascot design characteristics, which cannot be thorough in any way, due to its multiplicity of characteristics. In addition to this limitation, we can mention the fact that we will analyse the mascot recognition and not the recall. Finally, the magnitude of this study won't allow the impact analysis of colour, although colour is very important at the level of the perception of brand signs. It will therefore be necessary to conduct further studies integrating these limitations.

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ATTACHMENTS

Fig. 1 – Investigation Model

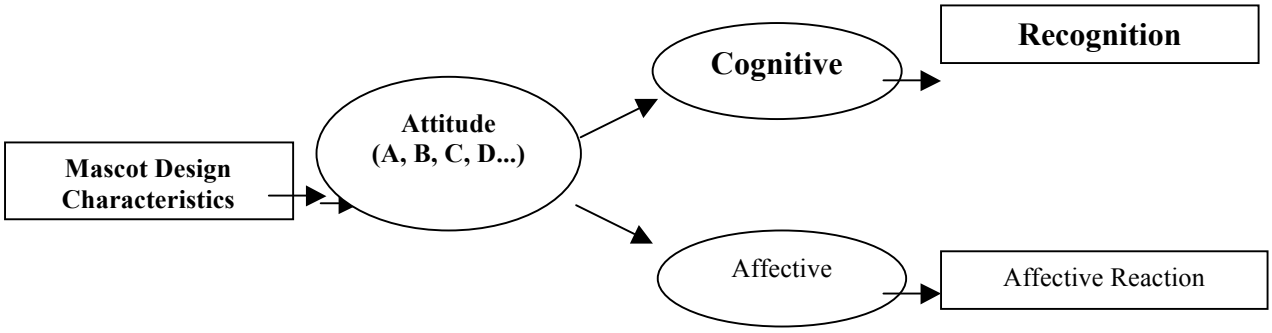

Figure 2: Stimulus

Due to mail capacity, the mascots are not all illustrate, just the figurative one, that was than manipulated on each semantic category.

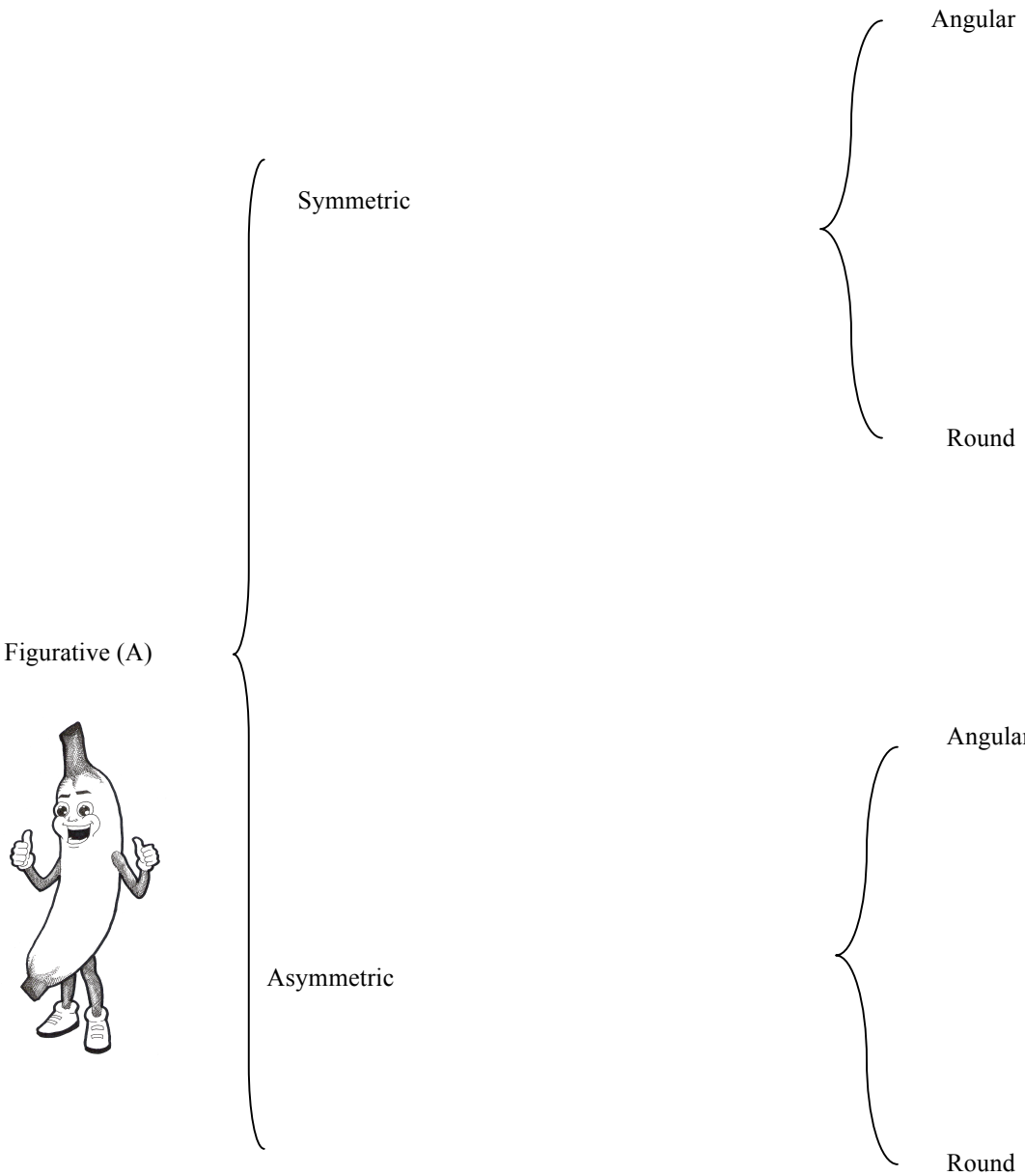

Figure 3 – Chi-Square Independence tests

	Statistical value		p-value	Fisher Test	Rejection/ No rejection
Mascot recognition – Short term					
Mascot recognition- long term	40.650	1	.000	.000	Rejection a 1%
Gender	.000	1	.998	1.000	No rejection
Grade	1.895	3	.595		No rejection
Stimulus	28.201	6	.000		Rejection a 1%
Mascot recognition – Long term					
Gender	2.292	1	.130	.163	No rejection
Grade	8.008	3	.046		Rejection a 5%
Stimulus	10.461	6	.107		No rejection

Figure 4 – Cross table of the short-term recognition and the long-term recognition

			Short Term Recognition		Total
			Yes	No	
Long Term	Yes	Freq	84	36	120

Recognition					
		% Col	78.5%	35.0%	57.1%
		R^2	6.4	-6.4	
	No	Freq	23	67	90
		% Col	21.5%	65.0%	42.9%
		R^2	-6.4	6.4	
Total		Freq	107	103	210
	% Col		100.0%	100.0%	100.0%

Figure 5 – Cross table of the short-term mascot recognition and the stimulus

			Short-Term Mascot recognition		Total
			Yes	No	
Stimulus	Figurative	Freq	24	6	30
		% Col	22.4%	5.8%	14.3%
		R^2	3.4	-3.4	
	Asymmetric	Freq	20	10	30
		% Col	18.7%	9.7%	14.3%
		R^2	1.9	-1.9	
	Symmetric	Freq	13	17	30
		% Col	12.1%	16.5%	14.3%
		R^2	-.9	.9	
	Round Asymmetric	Freq	16	14	30
		% Col	15.0%	13.6%	14.3%
		R^2	.3	-.3	
	Angular Asymmetric	Freq	17	13	30
		% Col	15.9%	12.6%	14.3%
		R^2	.7	-.7	
	Round symmetric	Freq	6	24	30
		% Col	5.6%	23.3%	14.3%
		R^2	-3.7	3.7	
	Angular symmetric	Freq	11	19	30
		% Col	10.3%	18.4%	14.3%
		R^2	-1.7	1.7	
Total		Freq	107	103	210
	% Col		100.0%	100.0%	100.0%

Figure 6 – Cross table between long term mascot recognition and grade

			long-term mascot recognition		Total
			yes	No	
Grade	1st grade	Freq	25	28	53
		% Col	20.8%	31.1%	25.2%
		R^2	-1.7	1.7	
	2nd grade	Freq	28	22	50
		% Col	23.3%	24.4%	23.8%
		R^2	-.2	.2	
	3rd grade	Freq	29	26	55
		% Col	24.2%	28.9%	26.2%
		R^2	-.8	.8	
	4th grade	Freq	38	14	52
		% Col	31.7%	15.6%	24.8%
		R^2	2.7	-2.7	
Total		Freq	120	90	210
	% Col		100.0%	100.0%	100.0%

Figure 7

a The iteration process stopped because the convergence test value was reached.

Eigenvalues

Dimension	Eigenvalue

1	,346
2	,220

Discrimination Measures

	Dimension	
	1	2
Gender	,007	,431
Grade	,092	,190
Short-term mascot recognition	,647	,022
Stimulus	,400	,423
Long-term mascot recognition	,582	,032

Figure 8: Perceptual Map

Figure 9: Final Cluster Centers

	Cluster		
	1	2	3
Dimension 1	,43	,83	-1,03
Dimension 2	-1,04	,82	,18

Figure 10: Perceptual Map for Clusters