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THE FAIRYTALE CHARACTER IN ADVERTISMENT AS A
MEANS OF INFLUENCE ON CHILDREN

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Abstract

The objective of our research is to identify distinct features of senior preschoolers' perception of the advertising images of fairytale characters on the packages of dairy products.

In order to achieve our objectives, we use several psychodiagnostic procedures: the Sally-Anne test, a survey, the Delphi procedure, and eye tracking method using the Tribe Eye-Tracker and the Ogama software. We use the SPSS 21 programme for statistical processing. The findings of our study have enabled us to arrive at the following conclusions. The special fascination of fairy tale characters in advertising may be accounted for by the psychological singularities of the children between the ages of five and six. They are the predominance of play, dominance of involuntary attention, activation of the processes of imitation and identification, and also an incomplete Theory of Mind. The gaze duration for the advertising image of a fairytale character on the package is substantially longer than the duration of fixation on taste and brand. Food selection by preschool children is based predominantly on good feelings for a character depicted on the package. Food selection by parents is not based on the health benefits of a product. Parents and their children opt for different brands of dairy products.

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1. Introduction

The rapidly growing food market tries to attract the attention of potential customers with all manner of visual means. From their preschool years, a child is forced to learn how to single out not only those products that are eye-catching and popular but also those that are beneficial for their health. The primary, but not the only, function of advertising is to prepare children to become competent consumers (Ampuero & Vila, 2006; Elliot, 2015). In view of the age-related features of child development, at the preschool age the greatest influence is exerted by the phenomena of psychological contamination (affecting the emotional sphere of the personality), imitation (involving the appropriation of behaviour models that have been observed) and indoctrination.

Products advertised demonstrate a particular lifestyle, which is typically associated with success, health and beauty, thereby imposing certain patterns of behaviour (Hahlo, 1999). This is reflected in a proclivity for the way of life that is shown on the screen and the use of specific brands, which young children recognize before they learn how to read (Weller, 2002). Children entreat and even compel their parents to buy attractive products, which are far too often inferior, and this sometimes leads to friction with the parents, who refuse to do so. The harmful influence of advertising on children consists not only in the purchase of low grade products but also the formation of distorted stereotypes and values. When parents explain that these products are deleterious to their health, 23 percent of children agree with them, but 60 percent actively protest and become upset (Strasburger et al., 2009),

The favourite fairytale heroes of the child, who endorse one or another product may exert the greatest influence on them, in the same way famous actors have a similar effect on an adult. The analysis of a particular influence of fairytale characters on preschoolers' trust in the products they promote has yet to be carried out. It has also not been proved that these characters have an effect on children's preferences. It has already been shown that the extent to which a child forms theory of mind plays a significant role in their understanding of the purpose beyond advertisement (Sergienko et al., 2013).

Investigations into the children's perception of the package that bears the image of a fairytale character by using the eye-tracking device are rarely found in the research of child psychologists. The sequential presentation of visual patterns on a computer screen and records of children's eye movements using an eye tracker makes it possible to analyze their spheres of interest in detail and to prove whether a fairytale character has a special effect on children's preferences or not.

2. Problem Statement

When discussing the question of understanding advertisement by children at different ages, most researchers fall back on the Jean Piaget's theory of cognitive development. Based on this theory, four relevant stages of development in the understanding of advertising have been singled out (Durkin & Barber, 2002):

- distinguishing the advertisement from the program content;
- recognizing and understanding the intent of advertisement;
- appreciating advertisement and evaluating it sceptically
- developing the cognitive defence against advertising

Research shows that until the age of five or six years old, children do not demonstrate any distinct awareness of advertising in the whole mass of information they receive and partially comprehend its meaning. Up to this age, children do not demonstrate any understanding of the intent behind advertising – to sell a product – and look at TV advertising as informative entertainment, which exhibits definite models of behaviour (Bloser & Roberts, 1985).

This fact has been confirmed by many studies; for example, four-to-six-year-olds are asked to watch an unfamiliar television commercial about cereal and then are presented with six pictures to choose different family activities (preparing breakfast, eating breakfast, shopping, etc.), all of which include the cereal. It reveals that only six-year-olds choose the shopping picture at more than chance levels (Gunter, 2009). Other studies carried out along similar lines indicate that it is impossible for children to understand the intent of advertising – to persuade them to buy whatever product is being promoted – until they reach the age of five or six (Macklin, 1987).

The impact of advertising on a person is more often than not presented according to the AIDA model, the acronym for Attention, Interest, Desire and Action. It turns out that, in order to spark a customer's interest in any product and arouse the desire to purchase it, one must capture their attention, first. This is the point at which designers step forward to work on the packaging in order to make a product stand out and be recognizable. The package plays an important role in producing an initial impression on people, acting as a "mute salesman". It is unlikely that a nondescript phial will catch the interest of a young child if there is a really flashy product standing next to it. In one study (Rettie & Brewer, 2000), it is established that 73 percent of all buying decisions are made at the moment of discovery, when the buyer is standing in front of the product, and, what is more, the key factor is the packaging (Ogba & Johnson, 2010).

Images of fairytale characters, characters from popular animated films and trademark mascots, which then become an integral part of the brand name – all of these are used to arrest the attention of children. Likewise, there is a growing proliferation of free gifts and stickers, the presence of which is often reflected on the package (Ogba & Johnson, 2010). Many companies target their products specifically at children, trying to develop loyalty to their brand, thus cultivating a new generation of consumers who will buy their goods or services.

In order to truly attract attention, a brand character should possess the following characteristics: they should be easily perceived and identified with the brand, they should be visually laconic, vivid and accessible to the target audience, they should convey a positive assessment of the product and its owner, and they should also be emotionally charged and unique (Zashchirinskaya et al., 2017).

From all of the aforementioned, one can observe that the ideal trademark mascots for children are characters from fairy tales and animated films or archetypal figures that have become a part of a brand.

Most frequently, the mechanism of contagion manifests under the conditions of chance or impulse purchases, when people are standing in checkout lines. We have all seen, at least one time in our lives, how in supermarkets children start begging their parents to buy something they have seen in the hands of another child.

3. Research Questions

Our research was predicated on verifying the hypothesis that a child's preference was associated with how bright the package was, and how much space the fairytale character took up on it. Their first emotional reaction to a product had an impact on a child's incentive to select it among other children's goods. When children identified themselves with a fairytale character on the package, they were more likely to endow it with positive attributes. Verbal descriptions of characters used in advertising were connected with their personal qualities and capabilities but not with their appearance.

4. Purpose of the Study

The objective of our research was to discover distinct features of senior preschoolers' perception of the advertising images of fairytale characters on the packages of dairy products.

5. Research Methods

In order to achieve our objectives, we used several psychodiagnostic procedures: the Sally-Anne test, a survey, the Delphi procedure, and eye tracking, using the Tribe Eye-Tracker along with the Ogama software. We used the following statistical procedures during the course of the empirical study: Student's t-distribution, the Pearson's chi-squared test and regression analysis.

5.1. Subjects

Among the study subjects, there were 25 children between the ages of 3 and 7 (12 boys and 13 girls) and their parents (50 persons).

5.2. The Gaming Procedure – The Sally-Anne Test

We used the Sally-Anne Test, or the False Belief Test, or the so-called Wrong Opinion Test in the psychological research to determine whether children had developed Theory of Mind. It was widely used in the Theory of Mind investigations and had a high level of validity. This test for understanding false beliefs was acknowledged by many authors as indispensable when evaluating Theory of Mind and was used as a standard test (Sodian, 2005).

5.3. The Survey Procedure – A Structured Interview of Children

A structured interview was held while a child's gaze point was being fixed by the eye tracking device. Each child was asked four questions for each stimulus. The questions were aimed at discovering how well they knew the product and the brand. This interview made it possible to ascertain to what extent the child was attracted to the product, and whether he was induced to acquire it or not. These data were then compared with the results of the eye tracking device. The answer to the question of which product in each series of stimulus material a child would definitely ask his parents to purchase was compared with the parents' choice.

5.4. The Delphi Procedure – A Proprietary Survey of the Parents

The survey technique used was employed in our own uniquely designed survey, which we developed specifically for this study. The examination of the parents consisted of 50 questions, 34 closed and 16 open. The parents were asked whether they were familiar with the brand names of certain products; they were also asked about the consumer behaviour of their children. The parents' opinion about the attractiveness of the package design was drawn out, which made it possible to later identify different categories of their spheres of interest in the package, and to compare to what extent they coincided with the spheres of interest revealed by the eye tracking method. The survey contained a question about the benefits of the products, and the parents were asked to evaluate them by selecting one of the following answers: “very harmful”, “harmful”, “neutral”, “beneficial”, or “very beneficial”. The question of choosing one of the four products that were presented was of special interest. The results were estimated, and the most oft-selected product of the parents was compared with that of the children.

5.5. The Hardware-based Procedure – Eye Tracking

An eye tracker is a device that made it possible to observe eye movement and fixed exactly where a person was looking over a distance, especially on a monitor screen. Present-day eye trackers used the non-invasive method of video recording of the reflection of infrared light on the cornea of the eye. By means of eye tracking (one of the names for the procedure of video-oculography), the gaze fixation (what a person was looking at), the saccades (jumping movements of the eyes) and many other distinctive eye movements were determined. On account of the pinpoint accuracy of this procedure, it was possible to fix exactly what a person was looking at on a monitor screen; by dividing visual stimuli into zones, statistics were isolated for different zones. In order to visualize the results of the research, heat maps based on fixation statistics, or viewing time of the test sample were used.

In our study, the Eye Tribe Tracker (ET1000) was used. It had the transformation frequency of 30Hz, accuracy of $0.5^\circ - 1^\circ$, and spatial resolution of 0.1° (RMS). To handle the data, the Ogama program was used on a monitor with the resolution of 1366x768 and refresh rate of 60Hz. This hardware system allowed us to monitor the gaze point in a way that was contact-free, owing to its sensor, which used a system of infrared radiation, and to carry out data handling with the resulting heat maps. The accuracy of this system was very high, and it factored in the slightest movement of the pupils. For the subsequent statistical analysis, the following facts were used: the number of fixations, the total gaze duration, the percentage of the time of the spheres of interest and length of the saccades.

6. Findings

When the children were polled as to which product they would choose and why, 55.2 percent said they were attracted by the character on the package, 24 percent – by the eye-catching appearance, and 15.2 percent – by an advertisement that they had already seen. As to the product features (taste), 4 percent of those polled cited this criterion, and the presence of the product at home (previously purchased) turned out to be decisive for 1.6 percent of the children. When identifying themselves with the advertising image on the package, the children more often than not gave credit to positive personal qualities of the character. In

this category of the answers, the attributes “cheerful” and “funny” stood out, which spoke of their significance, given the emotional development of the preschoolers ($p < 0.01$).

A fairytale character used to promote a product and their colour both had a particularly strong influence on children. The presence of the correlation between the colour and the amount of space that a character took up (the Pearson procedure, $r = 0.725$, $p < 0.01$) witnessed to the statistically significant connection between the colour and the display area of the character on the package. There was also a correlation between the number of colours and a child’s decision whether to select a product ($r = 0.641$, $p < 0.05$) or not, which also confirmed the statistically significant connection between these elements.

6.1. Pinpointing a Child’s Spheres of Interest (AOI) on Dairy Product Packages

As a part of the study, those areas on the food packages that the children were more attracted to were singled out based on the expert appraisals of their parents. The parental survey included such question: “What do you think attracted your child to this product?” Using their answers as a basis, we were able to delineate three categories, which represented what had the greatest allure on the children: character, taste and advertisement.

The greatest number of the parents (32 percent) considered that a fairytale character on the package of a dairy product had the strongest influence on the child’s preference and choice, while 29 percent believed that the bright package (with no regard to a fairytale character) itself drew the attention of the preschooler.

The visual component was thus reflected in two categories: the package and the character. Since we were ultimately concerned with those elements of package design that attracted children’s attention, in our opinion, these two categories could be combined. In the third category for the visual component of a package, advertisement, an analogue to the parents’ answers, was the brand category, since the brand was reflected in the visual component and determined a product’s affiliation with a particular producer, which manifested in a television advertisement.

Consequently, the main interest of our investigation into packaging by means of eye tracking was such spheres of interest in a package for children as character, taste and brand.

6.2. Analysis of Spheres of Interest During the Visual Perception of a Dairy Product Package

We singled out the three spheres of interest for the children who was looking at the package of a dairy product – character, taste and brand. This enabled us to calculate the length of time that they looked at a particular sphere of interest, and the percentage of the overall time that they looked at the whole stimulus. We could then determine the number of fixations and, consequently, prove that the distribution of the children’s attention was uneven, when looking at the package of a dairy product and trying to choose one of the four products presented to them. Table 1 presented the data that indicating mean values of the gaze duration for a particular sphere of interest in relation to the gaze duration for the whole package (ms).

Table 01. Mean values for the gaze duration for a particular sphere of interest in relation to the gaze duration for the whole package.

The Child's Spheres of Interest	Mean values for the set variable: Fixation time of the sphere of interest. Total fixation time for the stimulus (ms)
Character	0.097
Brand	0.019
Taste	0.060

Applying Student's t-distribution to the dependent sample, we obtained statistically significant differences between the gaze duration at the character and taste and brand regions. During the visual perception of a package, most of the child's attention was directed to the advertising image of a fairytale character. This could be attributed to the distinctive psychological features of the children at this age: the dominance of involuntary attention and the predominance of play, which endowed animated fairytale characters with a special attractiveness.

It was found that the children between the ages of five and six spent more time looking at a fairytale character than the taste and the brand. And, the difference was statistically significant, that is, if we looked at the gaze durations for *character*, *taste* and *brand* in each stimulus separately.

The child's behaviour when choosing from the products presented to them differed markedly in comparison with that when looking at the package of a dairy product. When trying to make a choice, the process of comparing the alternatives was triggered. And, the criteria responsible for determining their preference were more clearly underscored, both when choosing and when examining the package.

Table 02 presented the mean values for the gaze durations of spheres of interest in relation to the gaze duration of the whole package in the situations when the children chose from different brands of milk shakes and creamed curd cheese products.

Table 02. Mean Values for Gaze Durations of the Spheres of Interest in Relation to the Gaze Duration of the Whole Package in the Situations of Choice

A Child's AOIs		Mean values for the set variable: Fixation time on the spheres of interest. Total fixation time for the stimulus
Choice #1	character	0.028352
	taste	0.014155
Choice #2	character	0.03103
	taste	0.008735

Note: Choice #1: The child was presented simultaneously with the packages of four different brands of milk shakes to choose from. Choice #2: The child was presented simultaneously with the packages of four different brands of creamed curd cheese products to choose from.

In a situation of choice, the child's attention also distributed unevenly, with the primary fixation on a fairytale character. When comparing food products and making a choice from them, the child based his choice on the attractiveness of the visual components of the packages but not on consumer-oriented characteristics, such as taste. The statistically significant differences between the gaze duration at the fairytale-character and that of the taste could be observed in Table 5 (Choice #1: $t=3.738$, $p=0.001$; Choice #2: $t=2.580$, $p=0.015$).

6.3. Analysis of the Choices of Dairy Products Made by the Children and Their Parents

The assumption that preschool children's food choices were attributable to those of their parents was verified. After all, it was parents who should instill the culture of food in their children from an early age, acquaint them with the criteria for making choices and help them adapt to the realities of consumerism.

By applying the Pearson's chi-squared test, significant differences were obtained ($\chi^2=11.267$; $p=0.001$) between the results of the experiment and the predicted (equal) distribution or conformity between the choices of the parents and the children.

The choices of the children and their parents were not related to each other. This could be explained by that their choices were built upon different principles. For the children, the external component is important, while their parents' choices could be influenced by any number of factors. Regression analysis indicated that the parents' selections were not based on what they felt to be beneficial for their children, since there was no significant link between the choice of a product and the health benefits attributed to it.

Table 03. Regression Analysis: The Influence of the Health Benefits of a Product on the Parents' Choices

Parents' Choices of Brands (Dependent Variables)	R ²	B	p
Nesquik	0.040	-0.200	0.289
Lenta	0.000	-0.007	0.969
Rastishka	0.000	0.21	0.910
Smesahriki	0.000	0.000	1.000
Rastishka Curd Cheese	0.049	-0.222	0.239
Demik	0.007	-0.086	0.652
Agusha	0.000	0.019	0.919
Chudo	0.000	-0.012	0.950

In their choices, parents did not always adhere to the principle of what was the best for their children. Furthermore, despite low ratings, the parents confessed that they regularly purchased the products that were presented for consumption. Based on this fact, we could assume that in the present-day families, there was not enough attention given to children's consumer behaviour, and too often, all the basic principles of food selection were not explained to them.

7. Conclusion

The findings of our study have made it possible to arrive at the following conclusions.

A special fascination of fairytale characters in advertising can be explained by the psychological singularities of children between the ages of five and six. They are the predominance of play, dominance of involuntary attention, activation of the processes of imitation and identification, and also an incomplete Theory of Mind.

The gaze duration for the advertising image of a fairytale character on the package is substantially longer than the duration of fixation on taste and brand.

Food selection by preschool children is based predominantly on good feelings for a character depicted on the package.

Food selection for parents is not based on the health benefits of a product.

Parents and their children opt for different brands of dairy products.

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