

# The Design of Interesting Packaging of Children's Food

Wang Ning\*

Nanyang Normal University, China

**Abstract:** The first function of package is protection. Although the commodities are produced for market, the protection of package is futility, if the commodities don't sale. So acceleration of market is very important. The package of children's food is one of the packages, so it must pay attention to the market. An excellent package of children's food must research the children's physiological and mental characters beside the basic elements in design. This is excellent artist work. This thesis discussed the children's response, which faced the color, figure, and model and opening of the food's package, revealed the disciplinarians of design and then explore the connections of element in design and interest.

**Keywords:** Children's food, consumer psychology, design method, groups interest, packaging graphics.

## 1. INTRODUCTION

Our country is in a critical period of rapid development of market economy and the transformation, how the rich diversity of market economy, promote product sales and circulation, become the focus of attention. Children with a large population in our country, the children's food and children's daily life indispensable one kind of consumables, its market will be more and more broad, its packing is important factors to attract children or their parents to buy, and the packaging graphic design is the most key factors can directly affect their consumption psychology.

In this paper, starting from the particularity of children's food packaging, discussed its color demands pure clear, graphics, rich interesting and novel and unique appearance requirement, and discuss its safety and the characteristics of humanization, *etc*; Food packaging were summarized in the aspects of health, safety and health requirements and related laws and regulations. On this basis, from its relationship with the social cultural environment, and its impact on children's consumption psychology and children's food market, such as Angle of the particularity of children's food packaging graphic design was conducted in-depth study; According to China's social, economic, the overall level of career development, and common culture background of Chinese society, on the basis of the physiological and psychological characteristics of children of different ages in China, children can be divided into 0 to 3 years old (baby), aged 4 to 8 (early childhood) and 9-12 phase (children) and so on three stages; Based on the characteristics of children's physical and psychological development, and the three points for children ages different consumer psychology has carried on the detailed analysis, and the corresponding phase of children's food packaging graphic design requirements and specific characteristics were studied.

This paper analyzes the children's food packaging graphic accurate, personalized and unique, and three principles such as regional and cultural limitations; Discusses the specific construction form of children's food packaging graphic, summarizes the characteristics of its vivid, intuitive, and discussed its including color, content, and decoration, the three main elements, analyzes its sign, specific graphic symbol and metaphor, abstract graphics, such as a variety of expression.

## 2. THE PARTICULARITY OF CHILDREN'S FOOD PACKAGING AND GRAPHIC DESIGN RESEARCH

Children's food has great particularity for its property and commodity characteristics and consumer groups. Food packaging graphic design is different from other commodity packaging graphic design due to its function. Consumers tend to buy food whose package arouses their appetite or curiosity.

The main body of children's food consumers is children and their parents and elders. First of all, children's thinking mode and visual psychological characteristics and adults' have very big difference, and in different age stages, these characteristics are different, too. For the children's parents and elders, their purchase of the children's food is the result of their own taste for commodity and its packing, and also pays more attention on their children's preference [1]. Therefore, we may say that children's food packaging graphic design object mainly focus on children. The fundamental starting point should be the children of different age stages of different understanding, thinking features and the possibility of its visual psychological acceptance, at the same time the characteristics of food packaging should also be taken into account, and also children's parents or elders' acceptance of food packaging. Only considering these factors of children's food packaging can graphic designs win the love of consumers.

For the modern sense of the commodity, packaging and graphic design image, the value of the goods play a vital role

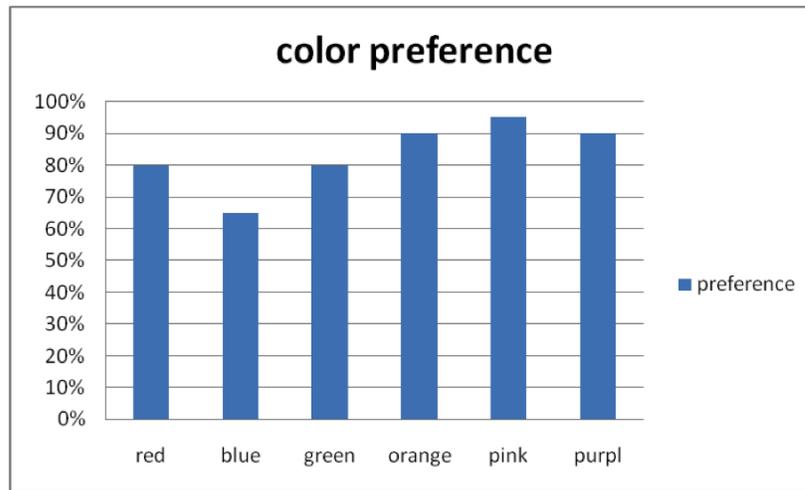


Fig.(1). Color preference.

in the market, especially for children's food. Firstly, because of the particularity of the consumption of goods, its packaging and graphic design will have special requirements of different from other goods. In addition, for the food, the package is very important. Designers must consider this when designing [2].

Compared with adults, the commodity audience (*i.e.*, children), their education degree is low, the cultural knowledge level is not high either. The way they perceive things is different from, so packaging design way can't be according to the adults' commodities, but it must be on the basis of children's physiological and psychological characteristics. The particularity of commodity packaging design elements mainly reflected in the packaging color, packaging graphics and packaging appearance, *etc* [3].

Children's commodity packaging color need to be pure and clear. When looking at the things, the first impression of human visual sense is often the feeling of color, especially for children; because of their cultural knowledge level is limited. It is hard for them to understand complex information, and the information transmitted to people by the color is the most straightforward, and is also the most intuitive. For children's commodity packaging, its pure bright color can give a person passion and vitality, and full imagination and thinking space. Proper color makes goods attractive and encourages them to buy goods. In Fig. (1), children show different preference for colors.

The result come from weighted average and covariance.

$$a = (x_1 f_1 + x_2 f_2 + \dots + x_k f_k) / n \quad (1)$$

$$s^2 = \frac{1}{n} [(x_1 - x)^2 + (x_2 - x)^2 + \dots + (x_n - x)^2] \quad (2)$$

$$b = (x_1 f_1 + x_2 f_2 + \dots + x_k f_k) / n \quad (3)$$

In Fig. (2), this is candy brand whose packaging color is very bright. The red symbolizes passion. Compared with dark tonal packaging, it has a visual impact and is more likely to be noticed. When the children see such packaging, they will be easily attracted.



Fig.(2). A candy brand's package.

Commodity packaging graphics require rich interest. The graph is a very important element in the design of packaging. Graphics is a kind of simple and pure language for visual communication, with a strong visual effect. It is good in the passing information and characteristics of the goods, and is generally easy to identify and cognition, and also can express the rich meaning. Children's cultural knowledge level is limited, they can know and understand the text less, but the expression of graphics can be intuitive to express meaning, and easy for child to receive [4]. At the same time, cartoon, caricature are extremely interesting graphics to cause the interest of children. Therefore, for children's commodities packaging design, its graphics must be able to seize the attention of children.

Common childhood commodity packaging graphics often contain a cartoon character or cartoon characters, animals, *etc*. These graphics are cute, or exaggerated, or are already widely known through media. Like the package in Fig. (3), it adopted very interesting graphics as the main design points to attract children to buy them.

Children's food packaging requires uniqueness. Children are more imaginative and curious. they are more inclined to be interested in various color and novel image. Therefore, the design of children food packaging should be novel and unique, so as to attract the attention of children. Children's nature is active and lively, but at the same time, their attention is not easy to focus; only interesting packaging can instantly capture their attention. To a large extent, children



Fig. (3). A cereal brand's package.

don't care about the goods itself, but are rather attracted by their appearance [5]. They buy the food just to satisfy their curiosity. Therefore, the appearance of the novel model is another important factor.

**3. CONSUMING PSYCHOLOGICAL CHARACTERISTICS OF CHILDREN IN EACH AGE STAGE AND GRAPHIC DESIGN**

Consumer psychology of children and adults there is a big difference, and consuming psychological characteristics of children in different ages are also different. So in the design of children's food packaging graphic, designer must give full consideration to consumer psychology and patterns of the child's age. Only in this way can design be welcomed by the corresponding age children. This chapter based on the physical medicine and child psychology and related research conclusions, tried to analyze consumer psychology of children in all ages, and the corresponding graphic design is detailed discussed.

Scientific research shows that children's physical growth and development and the development of their psychological thinking process is not simple linear change, but will be affected by the human body structure characteristics and the characteristics of the growth and development, as well as the children in the family, social environment and cultural atmosphere, and many other factors; at the same time, the

related research also shows that children growing up in the similar conditions and background, to a certain age range, the physiological and psychological characteristics are similar. In this paper, based on the physiological and psychological characteristics of children of different ages in China, children can be divided into three age stages:

Stage 1: 0-3 years old, also known as the baby stage. this stage is the initial period of human life, also in the development of each function of the body, basically they can automatically adapt to the environment;

Stage 2: 4-8 years old, also known as infant stage. In this stage the children's all functions have very big development. Their ability of activity also grows up. Basically they can unconsciously adapt to the stimuli from the environment;

Stage 3: 9-12 years old, also known as children's stage. In this stage children body develops rapidly, the vast majority of physiological function are basically mature, and they begin to consciously learn and transform the environment, as is shown in Table 1.

0 to 3 years old children's physiological and psychological state are at the initial stage, the human life cycle almost without independent thinking. They can only unconsciously adapt to the environment. Baby's language skills and auditory acuity is very weak, logical thinking and image thinking ability is also very low, but the visual sense of the baby has developed to a certain stage. Generally 1 to 1.5 babies can distinguish yellow, red, blue, green and such several kinds of basic colors. Baby completely feel and understand the surrounding environment according to the appeal of the various object.

Children aged 4 to 8 has a great deal of reinforcement in action. As the growth of the age, children can clearly distinguish the basic shapes and colors, and can sense the color brightness and purity. At the same time, the children's attention do not under its self control, but is excruciatingly attracted for those who have strong excitant and can cause their interest. The attention of the children will point to things they are interested in, that is, those bright, novel and unique specific image or transform dynamic things can attract their attention at any time. On the psychological characteristics, children's emotional experience is close to adults. Young children's self-awareness also had the very big development, begin to have the idea of self, and gender consciousness also began to appear [6].

Children between 9-12 years old develop rapidly. The vast majorities of physiology basically mature and are close to adults. Their actions and thinking ability strengthen gradually and they begin to consciously learn and transform

Table 1. Color preference of different age.

Age	Response to the Color	Favorite Color
0-1.5	Able to identify colors and non-colors; react strongly to red	non
2-3	Able to identify basic colors; unable to distinguish secondary colors	Red, yellow, green, orange, white, blue, black, purple
3-6	Able to identify the tiny difference	Warn color
≥6	Show gender difference	Coordinate and soft color

the environment. The length of attention time increased as children's age and their education and training.

This period of children's thinking ability, understanding ability and logical ability also reached the peak of children. their choice of the product, especially for the likes of commodity packaging, will no longer simply depends on visual impression, but will consider more unity between internal quality and external appearance. At the same time, along with their social communication's expansion and increase, their behavior, thoughts and aesthetic judgment will be influenced by social factors, therefore, compared with smaller children age, they tend to buy more "popular" commodities or goods containing popular factors, and their understanding of "fashion" is similar to teenagers.

The packaging design of children's food product should have 3 critical features, safe, convenient and enjoyable. An excellent packaging design of children's food should be a perfect combination of structural design, exterior design and packaging material. In terms of nature, the packaging design for children's food is very special. Not only does the design need to follow basic designing rules, it also needs to be conducted based on children's physical characteristics. The color, style and pictures of children's food packaging have to cater to children's psychology. The new packaging techniques greatly improved the packaging of children's food [7]. The new green intelligent material without pollution is the direction of future packaging industry. Children's cartoon graphics brought up varieties of children's food packaging. This thesis is a detailed study on the characteristics and direction of children's food packaging. It starts from talking about children's different consumer psychology in different age periods, and summarizes the variety of design styles of children's food packaging. It also analyses the presentation of different design elements of the food packaging for different age groups of children. Beside the technical consideration of design, the packaging design of children's food has to meet children's psychological needs. A good packaging design of excellent creativity can significantly add more additional values to the children's food.

## CONCLUSION

In the modern social commodity economic development rapidly, market competition is intense, pay attention to the color design of packaging, pay attention to the aesthetics of design and the analysis of the research in consumption psychology is an effective way which commodity seizes the market [8].

Children's food occupied a large proportion in the Complicated food market. Children's food packaging is the most distinctive and beautiful type in all the food packaging, this is closely linked to color design. As the major consumers of children's food, the group of children are in the stage of de-

velopment and unfocused, have immaturity and uncertainty [9]. They know about things outside, mostly because they are stimulated by some information, through the interaction with the external environment, and formed certain cognition in their own mind. They usually choose the food based on their first vision which packaging could conveyed to.

According to the characteristic of children and the results of market research, concluded that the successful experience of children's food packaging design and the basic principles show that using primary red, yellow, green, blue with basic graphics, have more attractive for consumers of children. This is the point that stylists and businessmen caught the consumer's psychology. Through analyzing the basic situation and the development trend of children's food packaging design, Combined with the related theory of psychology of consumption, further study the color emotion of children [10]. Using the basic knowledge of chromatology, take the emotion that conveyed by color as the main features, study the relevant theory of color, focuses on analyzing the characteristics and effect of the complementary color. Combining with the psychological and physical characteristics of children, comprehensively use to children's food packaging color design.

## CONFLICT OF INTEREST

The author confirms that this article content has no conflict of interest.

## ACKNOWLEDGEMENTS

This work is supported by 2013 scientific research project of Beifang University of Nationalities (2013XYZ021), institute of information and system computation science of Beifang University (13xyb01).

## REFERENCES

- [1] D. Mackenzie, "Green Design: Design for the Environment," London: Laurence King, 2010, pp. 13-15.
- [2] J.J. Garrett, "The elements of user experience: user-centered design for the web," *Knowledge, Technology & Policy*, vol. 5, pp. 22-26, 2012.
- [3] J. Lauren, "Fair souvenirs can bring good cash flow and positive promotion," *Amusement Business*, vol. 4, pp. 48-50, 2014.
- [4] J. J. Garrent, "The Elements of User Experience," USA, New Riders Press, 2012, pp. 79-82.
- [5] M. Jaczuzak, "Industrial design process skills and why they are so important," *E&FN Spon*, vol. 5, pp. 34-52, 2011.
- [6] P. M. A. Desmet, R. Porcelijn, and M. B. Dijk, "Emotional design: application of a research-based design approach," *Knowledge, Technology & Policy*, vol. 2, pp. 60-65, 2007.
- [7] Wrede Stuart, *The Modern Pöster*, 2009, pp. 45-49.
- [8] Victor Papanek, *Design for the Real World*, UK, London Press, 2008. pp. 203-210.
- [9] Y. Shi, "IC-Package-system integration design," *Technical Communications Ltd*, pp. 50-52, 2013.
- [10] Y. Scott, "Winning at retail: research insights to improve the packaging of children's products," *Young Consumers: Insight and Ideas for Responsible Marketers*, vol. 2, pp. 73-87, 2008.