

Research Article

The Functions of Semantic Analysis on Color in Sweets Packaging Design

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Abstract: The packaging design of sweets is an important factor influencing the sales of this kind of food. Through the semantic analysis on the color of packaging, the influence of the packaging color of the candies which are sold in market is analyzed in the study. The analysis result indicates that the packaging color of the candies has the function of semantic transmission; it has an important significance which shall not be ignored in the sales of candies.

Keywords: Food packaging, packaging design, sweets

INTRODUCTION

The first packages used the natural materials available at the time: Baskets of reeds, wineskins (Bota bags), wooden boxes, pottery vases, ceramic amphorae, wooden barrels, woven bags, etc. (Lan, 2010). Processed materials were used to form packages as they were developed: for example, early glass and bronze vessels. The study of old packages is an important aspect of archaeology (Blischok, 2010).

The earliest recorded use of paper for packaging dates back to 1035, when a Persian traveler visiting markets in Cairo noted that vegetables, spices and hardware were wrapped in paper for the customers after they were sold (Kuhn and Covino, 2004). Prior to the 1900s, candy was commonly sold unwrapped from carts in the street, where it was exposed to dirt and insects. By 1914, there were some machines to wrap gum and stick candies, but this was not the common practice. After the polio outbreak in 1916, unwrapped candies garnered widespread censure because of the dirt and germs. At the time, only upscale candy stores used glass jars. With advancements in technology, wax paper was adopted and foil and cellophane were imported [vague] from France by DuPont in 1925. Necco packagers were one of the first companies to package without human touch (Kawash, 2012).

Candy packaging played a role in its adoption as the most popular treat given away during trick-or-treating for Halloween in the US. In the 1940s, most treats were homemade. During the 1950s, small, individually wrapped candies were recognized as convenient and inexpensive (Trecroci, 2005). By the 1970s, after widely publicized but largely false stories of poisoned candy myths circulating in the popular press, factory-sealed packaging with a recognizable name brand on it became a sign of safety (Kawash, 2013)

Packaging helps market the product as well. Manufacturers know that candy must be hygienic and attractive to customers. In the children's market quantity, novelty, large size and bright colors are the top sellers (Kawash, 2012). Many companies redesign the packaging to maintain consumer appeal.

Sweet is one kind of confectionery. It is a kind of snack whose main ingredient is saccharide. In generalized Asian culture, chocolate and chewing gum are also regarded as sweets (Gajdosik, 2013). In the Occident, candies only refer to the products which are made from white granulated sugar or malt sugar. In ancient times, honey was even used by the Occident to make sweets; however, honey was not applicable to industrial production because the ingredients of honey were too many and not easy to be controlled. When fruits or nuts are wrapped with sugar coating, they will be called sweetmeat (such as sugarcoated haws). Sweets can be divided into the following kinds: hard sweet, hard centered sweet, creamy sweet, gelatinized sweet, panned sweet, gum-base sweet, aerated sweet and tablet sweet. Among the kinds of sweets, hard sweet has the mouthfeel of hardness and brittleness and its main ingredients are white granulated sugar and starch syrup; hard centered sweet is the hard sweet which contains stuffing; creamy sweet is made from the main ingredients of white granulated sugar, starch syrup (or other sugars), grease and dairy products; the content of protein is not lower than 1.5% and the content of fat is not lower than 3.0%; it has special fragrance of cream and scorched flavor; gelatinized sweet is soft and it is made from the main ingredients of edible gum (or starch), white granulated sugar and starch syrup (or other sugars); panned sweet has smooth surface and solid body; gum-base sweet can be chewed or blown and it is made from the main ingredients of white granulated sugar (or sweetening agent) and gum-base substances; as for aerated sweet, the interior of its body has fine, dense and homogeneous bubbles; tablet sweet

is made through the processes of prilling, cohesion and press.

As one of the two traditional backbone snack industries of our country, the industry of sweet maintains its rapid growth and the market share of it is expanding continuously. In the latest five years, the annual growth rate of 8-12% is always maintained in the market of sweets of our country. In 2011, the industrial scale of sweets of our country reached 62 billion yuan (Zhuo, 2015). "Different color has different influence on the mental feelings of human. In the aspect of the sales of sweets, the influence of color on the mentality of human can be used to organize and adjust color relationship. In addition, the organized color information can be used to convey the character of commodity to induce and persuade consumers." "Psychology research indicates that color feeling accounts for 80% and other feelings of body account for 20% within the initial 20 sec when the visual organ of human observes substances; color feeling accounts for 60% and other feelings of body account for 40% 2 min later; color feeling accounts for 50% and other feelings of body account for 50% 5 min later; this state will always continue." Therefore, the visual effect of color is very important (Yin-Xing, 2014).

Aiming at the consumer group of sweets, this study refers to the consumption habits of the group, begins with the packaging color design of sweets, proves the importance of the packaging color of sweets in the sales of sweets and puts forward new requirements on the packaging design of the enterprises of sweets.

MATERIALS AND METHODS

Gustation connection in mind can be caused by color. When one certain color appears in front of visual organ, one certain flavor will be naturally thought by people (Lin, 2009). For example, people tend to think of red pepper when they see the color of red; of course peppery taste will be thought of; people may also think of red apple and the sweet taste will be thought of. Therefore, the color of red or pink is often used to design the packaging of sweets because this color can convey the taste of sweetness. The packaging of chocolate can be pink. Pink is the symbolic color of sweets. The colors of red, orange and yellow can produce the feeling of warmth and stimulate the appetite of people. Therefore, they are often used in the external packing design of foods. Once weak yellow color is seen to be used on cake, people can feel strong milky aroma; when people see the packaging of egg tart, they cannot help eating it and tasting the flavor of it. Therefore, yellow is often used in order to express the fragrance of foods. The foods with the color of red, orange and yellow tend to have the flavor of sweetness. Cyan can make people think of the flavor of plum; brownness can make people think of the flavor of

coffee or traditional Chinese medicines; white can make people think of the flavor of salt and the fragrance of magnolia flower; yellow can make people think of milky aroma. People can feel the flavor of color. Some colors are named with the form of "food + color" such as lemon yellow, grape purple, cherry red etc. Likewise, weak purple can make people think of lilac, lotus and lavender and smell the fascinating flower fragrance. This gustation association caused by color emotion has been increasingly used in packaging practice. Reasonable utilization of color can bring gustation association to consumers. It has very important significance in packaging color design to know and master the emotional feeling of color gustation. It can accurately convey the gustation information of the contents in package, demonstrate the characters of food and establish the brand superiority of the food.

RESULTS AND DISCUSSION

Mars corporation, a transnational food corporation of America, launched the series of product of Dove chocolate in China. It is popular and enjoys good reputation in the world, especially in China. Dove chocolate successfully became the leading brand in the industry of chocolate in 1995.

Of course, the grasp of interior taste and quality is not the sole reason of getting so glorious achievement; the packaging of chocolate is worthwhile to be learned by other enterprises in the industry. New packages of chocolates emerge endlessly at the present times. Of course the colors of packaging are countless. No matter how to change the color, the color of chocolate will be the one which can forever best reflect the character of chocolate. The color of chocolate not only reflects the basic product feature but also makes consumers feel the elaborate quality of the product in its essential color. Let us take the classical Dove packaging design as the example, the color of white is regarded as the match color to serve as a foil to the color of chocolate and make consumers visually have the desire of purchase. It can bring boundless recall to people. Therefore, proper packaging can greatly attract the attention of people. The symbol of DOVE chocolate is made up by the four letters of D, O, V and E with deformation (Fig. 1).

Although the constitution of the symbol is simple, its implied meaning can be expressed by the expansion of the four letters--"DO YOU LOVE ME". The color of the symbol is chocolate color. It seems that the letters are made by the sprinkle of chocolate and emit the flavor of sweetness. It has the smoothness like silk and brings the feeling of melting in mouth, which is the seducement that cannot be resisted by girls. Just because DOVE chocolate selects reasonable color to package the chocolate and transmits the feeling of smoothness, it can stand out from the crowd of chocolate brands. That is the aspect which shall be learnt by other enterprises.



Fig. 1: DOVE chocolate box



Fig. 2: FUJIYA candy food packing box

FUJIYA is an old and famous pastry shop in Japan. It was founded in FUJIYA in 1910 and it mainly produced sweets, cakes and biscuits. Up to now, it has had a large group of consumers in the world besides Japan. The great achievements of FUJIYA give the credit to the figure children of "Peko and Poko" (milk brother and sister). The brother and sister are deeply

loved by the children and young people at the present times (Fig. 2).

The packaging colors of FUJIYA are selected to be bright red and blue which represent fragrant and sweet smell, gustation and mouthfeel. The selection of the colors has been examined and studied. The products with the smell of strawberry generally select pink as

their color. In addition, pink is the favorite color of girls and every girl has a pink dream. Therefore, they have the coherence point in certain degree. It is most appropriate to regard pink as the basic color among the consumer crowd of girls. It is proper to select red and blue as the colors of "Peko and Poko" (milk brother and sister). At the same time, the attention of children can be greatly attracted by the bright packaging color.

CONCLUSION

The packaging color of sweets is a symbol of the function of products. It is also a part of brand culture. At the same time, it is a basic factor of transmitting product information, emphasizing the personality of brand and establishing the uniform figure of product. To sum up, the reflection of consumers on product color is the real feedback of the psychological need on products (Wu, 2015). In addition, enterprises expect to master the emotional colors of consumers and use them as the colors of their products. As the first-hand means of contacting consumers, the packaging of food must well establish the brand color figure of the product, show its color to consumers and reach psychological agreement with consumers. It will be the important means of modeling the figure of products and creating sales achievements for enterprises. Packaging preserves aroma and flavor and eases shipping and dispensation. Wax paper seals against air, moisture, dust and germs, while cellophane is valued by packagers for its transparency and resistance to grease, odors and moisture. In addition, it is often resealable. Polyethylene is another form of film sealed with heat and this material is often used to make bags in bulk packaging. Saran wraps are also common. Aluminum foils wrap chocolate bars and prevent a transfer of water vapor while being lightweight, non-toxic and odor proof. Vegetable parchment lines boxes of high-quality confections like gourmet chocolates. Cardboard cartons are less common, though they offer many options concerning thickness and movement of water and oil. Packaging may be used as a type of gift wrapping. Packages are often sealed with a starch-based

adhesive derived from tapioca, potato, wheat, sago, or sweet potato. Occasionally, glues are made from the bones and skin of cattle and hogs for a stronger and more flexible product, but this is not as common because of the expense.

REFERENCES

- Blischok, T., 2010. Continued Growth Projected for Confections. *Candy Industry* 175.8 (2010): 10-12. Business Source Premier. EBSCO, Web. (Accessed on: Sept. 17, 2010)
- Gajdosik, A., 2013. Mike and Ike Reunite. *Candy Industry*.
- Kawash, S., 2012. The candy prophylactic: Danger, disease and children's candy around 1916. *J. Am. Culture*, 33(3).
- Kawash, S., 2013. *Candy: A Century of Panic and Pleasure*. Faber and Faber, Incorporated., New York, pp: 271-276.
- Kuhn, M.E. and R. Covino, 2004. Candy makers targeting niches, snacking, gifting opportunities. *Candy Industry*, 169(7): 14.
- Lan, S., 2010. Packaging design development of wedding candy in China. *J. Quanzhou Normal Univ.*, 2010(3): 121-123.
- Lin, Z., 2009. Analysis on present situation and development trend of domestic candy packaging. *Packag. Eng.*, 30(6): 87-89.
- Trecroci, D., 2005. Sugar-free line now richer and creamier with a lower glycemic index. *Diabetes Health*, 14(10): 30.
- Wu, F., 2015. Analysis on the impact factors of consumers' purchase intention of sports food. *Adv. J. Food Sci. Technol.*, 8(9): 642-645.
- Yin-Xing, L., 2014. Sustainable development of green packaging design. *Packag. Eng.*, 2014(22).
- Zhuo, Y., 2015. Research on the sensory design and evaluation system for food shape and color. *Adv. J. Food Sci. Technol.*, 8(12): 901-904.