

The important effects of food colour on appetite

[Nutrition](#)



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The Important Effects of Food Colour on Appetite 12 September 2012

Abstract The relationship between food colour and appetite has been concerned by many scientists in recent years. This project considers the importance of food colour on appetite through analysing and evaluating the effects of different food colour on appetite and then other factors that contribute to appetite are explored. As last step, comparison is conducted to find the most important element on appetite. With regard to other factors, it is concluded that the food colour play an important role in affecting appetite. This may be of interest to consumers, especially the people who want to find effective method to control and manage appetite. Contents | | Page | |

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In recent years, consumers have generally paid attention to the appearance of food. Since one of the most fundamental elements of food could be the food colour, when people see food at first sight, the appearance of a dish may have positive and negative influence on people's appetite (Hutchings 1994). Counsell (1981) and Petit (2006) summarise that colour plays a

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crucial role in the appearance of food from a psychophysical point of view. They remark that when different wavelengths of light come into eyes, due to the combination of eyes and brain through a series of mechanisms, colour will be produced and defined. The so-called appetite is a kind of physiological needs for eating. Nevertheless, a full stomach does not stand for that people do not have appetite and a desire to eat. The purpose of this project is to find the main element among colour, flavour and ambience which can influence appetite the most. Various food colours which can be seen in daily life will first be compared to describe the different negative and positive effects on appetite and evaluate the relationship of food colours on appetite. Then, other effective factors on appetite such as food flavour and eating ambience will be taken into consideration. Since the consumers do not know how different food colour, food flavour and environment could influence their behavior, it is felt that this examination will highlight this field and help consumers to move forward a single step to perceive the factors that can affect their appetite.

1. The Effects of Different Food Colours on Appetite

Natnette and John (2004) summarise that " Colour can produce autonomic biological reaction, certain emotional responses, and direct attention" (P. 826). For the majority of consumers, food colour is a kind of standard for assessing food quality prior to purchasing and consuming it (Huthings1994). He also concludes that there are several usual food colours in our daily life such as red, green, orange, purple and yellow, but some colours are difficult to find , such as blue and black. In this connection, the different food colours and their various effects of them on people appetite will be clarified and compared.

1. 1 The effects of red and yellow on appetite

In a psychological study Birren(1969) finds that red is an energetic colour which gives people a

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strong feeling of emotion. When people see the red colour, they may experience the feeling of happiness or peace and would make them hungry. However, yellow can stimulate people's brain activity and makes people feel excited and comfortable and warm. It seems that people's appetite can be improved significantly by red and yellow (Singh, 2006). Boym (2001) points that if red and yellow appear on the table at the same time, people would be likely to eat more, because the combination of red with yellow can make people feel friendly and can remember this combination deeply. The fast food company McDonalds, as everyone knows, ingeniously applies both red and yellow in their decoration, food package and even food. That could be one of the reasons why people all around the world would like to go to MacDonal and they get attracted by the its chain of restaurants. As a result, this appears to be a wise choice that just by adding some red and yellow colour to the food recipe, even people with poor appetite be more likely to purchase food products.

1. 2 The effects blue on appetite Blue food which is rarely found in the nature(Hutchings, 1994) represent peace, quiet and calmness and that is considered to have a beneficial effect on people's physical and mental ability (Singh, 2006). Hence, people's appetite obtain weak suppression and according to psychological finding, it is shown that when people want to lose weight, putting blue items in the kitchen would play an important role in eliminating their appetite (Allew, 1998).
3. The effects of green on appetite According to Pegler (1991), no matter which kind of the food is consumed, the majority of people may think that the food is healthy and safe as long as it is green. Green food probably signifies safety in these people's subconscious and green represents bright, fresh and natural, which could help stabilize mood and ease the tension. Following <https://assignbuster.com/the-important-effects-of-food-colour-on-appetite/>

from such a concept, people would like to accept most green things. 4. The effects of purple and black on appetite Johnson (2005) researches that people prefer to avoid purple and black food in their lives, when our ancestors searched food and found in purple and black that was a fatal alarm. These colours would have been considered toxic and rotten. The effects of the long-term sense may lead to the modern people behaviour on food. Hence, people probably do not have positive feeling towards on black and purple food. 1. 5 Evaluation of effects of food colours on appetite It is almost certain that different food colours indeed influence people's appetite. Huthings (1994) analyzes that food colour also helps consumers judge the quality of food as well. It seems quite reasonable that while some foods are chosen easily and are always in the people's everyday diet yet the others are not so popular and are often left on the supermarket shelf that is all a matter of food colour. Besides, because food manufacturers want to attract and induce more consumers, coloured food could be found anywhere such as sweets, beverages, ice-cream and others. Tyner (1997) points out that colour is the first characteristic we notice in food, so food colour has a major function in influencing people's appetite. 2. The Effects of other Factors on Appetite 2. 1 The effect flavour of food on appetite The combination of smell and taste can be explained by scientists to describe the perception of food flavor (Petit, 2006). However, ISO5492 (1992) summarises that smell, taste and trigeminal sensations comprise the flavour together, while odor and taste play the dominate role in flavour. 2. 1. 1 The effect of smell and taste on appetite As everyone knows, an unpleasant odour can influence and suppress people's appetite whatever environmental or food smell is, food intake and meal times would be decrease relatively. Nevertheless, the <https://assignbuster.com/the-important-effects-of-food-colour-on-appetite/>

effects of smell on appetite are complicated. Petit (2006) concludes that “smell is the sensation that results when olfactory receptors in the nose are stimulated by volatile chemicals” (P. 3). According to Natnette and John (2004), smell is directly and closely connected to appetite and food intake. Different smells can stimulate people’s expectation for food which includes the taste or the quality of food and even can be evoked by the previous memorial odor (e. g., mother’s soup). Petit (2006) says “tastes are the sensations perceived by the taste receptors when stimulated by certain soluble substances” (P. 4). According to Schiffman and Graham (2000), taste can influence food choices and appetite. Due to internal preparation for digesting, people will have a desire to eat or purchase food when they smell it. In other words, taste induces people to have needs for food and provides motivation and the impulse for eating. Hence, it seems probable that the integration of smell with taste can significantly affect people’s appetite.

2. 2 The effects of ambience on appetite

Eating ambience have a relatively wide meaning (ambience here refers to the atmosphere that food is served; it actually includes many external factors such as the light, sound and temperature of the environment (Natnette and John 2006). In the following part, the effects from different lights, sound and temperature on food intake and appetite will be discussed.

2. 2. 1 The effect of light on appetite

According to the research of Wansink (1994), the food consumption of people can be affected by soft lighting, the dominant reason is that soft light can make people feel more comfortable. Consumers’ resistance to delicious food will be reduced and meal times will be extended. As a result, food intake of consumers relatively may increase. Wansink (1994) also say that bright and glaring light could decrease the time people spend at on eating

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location because people always have better self-discipline which could explain why fast-food restaurants prefer to use bright lights, in order to accelerate the speed of eating food.

2. 2. 2 The effect of sound on appetite

Music can always be heard in restaurants, which is a kind of method used to stimulate appetite and consumption. Natnette and John (2006) conclude that music which is being played in the eating atmosphere not only plays function on covering unpleasant sound, but also makes consumers feel relaxed and changing consumers' mood. It seems clearly that the quantity of food and fluid could be affected by the different types of music (Natnette and John 2004). According to the research done by McElrea and Standing (1992), since loud and fast music can raise listeners' heart rate and blood pressure, the speed of drinking will be enhanced. It could be concluded that fast music could improve the quantity of food consumption and food intake, because the tempo of fast music can increase the frequency of chewing (Roballey, McGreevy and Rongo, 1985). By contrast, soft and slow music could reduce the speed of eating and extend the time consumers spend in the eating place; however, a greater monetary value of food will be consumed in such surrounding. In other words, if people listen to slower music or the music that they love, they will prefer to spend a longer time in the restaurant. Hence, they can easily drink and eat more than the consumers who are not in such environment. Different types of music have various connections with people's appetite (Roballey, McGreevy and Rongo, 1985).

2. 2. 3 The effect of temperature on appetite

The effects of temperature on appetite are often not understood by consumers. The temperature includes food temperature and ambient temperature. Due to influencing the speed of metabolism from the food temperature, the reaction of the stomach to hot and cold food and

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beverage is different (Natnette and John 2004). Hot food (e. g., warm milk) appears to reduce the capability of people's metabolism. Another study (Bre 'zinova 1972) show that processed and hot food could emerge more flavour which can raise the temperature of people's body to restrain appetite and induce satiety. In general, consumers who live in different areas have various preferences on food temperature due to difference food behaviour, culture, experience and expectation. It could be summarised that regardless of the preference for food temperature, the food temperature can affect appetite and even food intake. McConnachie and Alexander (2004) also conduct a research and came to the conclusion that people's appetite are hugely different within hot and cold surroundings; therefore, the type of food chosen by consumers and the amount of intake will likely be depend on many factors. For instance, in winter, people whose basic metabolic rate is faster than people who live in summer need more energy and caloric consumption to produce and keep warm (Natnette and John, 2004), whereas some scientists hold the doubtful opinion(Westerterp-Platenga 1999). For this reason, it is common perception that warm food should be selected more in cold weather while cold food and beverage should be chosen more in hot condition. From the discussion and comparison above, people, generally, have positive appetite and increase food intake in the presence of cool, air conditioned ambience.

2. 3 Summary

The above views indicate that food flavour and ambience of eating location appears to influence people's appetite, food choices and food intake according to the individual's experience, background and the expectation of food. The combination of smell and taste composes primarily flavour and affects further customers' desire for food, while light, sound, temperature of eating location also have

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effects on their appetite. It could be also true that soft and warm light and loud and fast music appear to increase consumers' food intake and extend the time of consuming, while cold and air-conditioned surroundings could improve consumption and intense appetite, vice versa.

2. 4 Evaluate and compare the food colour and other factors

After viewing the appearance of food, consumers would have the visual flavour including smell and taste. That could be to say that visual flavour appears before the real flavor when it comes into consumer's nose and mouth. Besides, Hutchings (1994) and Petit (2006) research affirm that food colour could influence people's perception and expectation of food flavour before smelling and tasting. It seems that visual and expected flavour will be associated when people see the appearance of food in the first sight according to their previous experience, which can influence consumers' judgement for food quality and flavour and even affect their appetite. This phenomenon may explain why coloured food exists and that would be because coloured food not only can highlight the flavour of the product but also offset the lost colour from processing (Tyner, 1997). The effects of ambience also have the positive and negative effects on people's appetite and food intake. However, the ambience such as light, sound, temperature is external elements out of food. It seems that the main choice of food appears not to depend on food itself. Gordon, Angela and Little summarise (1962) that " the first impression of a food is usually visual and a major part of our willingness to accept a food depends on its color" (P. ix). Hence, food colour appears to play an important role in influencing people's appetite.

Conclusion Food colour could influence mostly people's appetite than other factors when they see the food in the first sight. This may happen by the different food colours and other factors including flavor

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and eating ambience on appetite. These can be summarised that different food colours such as yellow, red, orange and green could encourage people to have desire to eat; however, rare purple, blue and black in food seem to be unpopular among the majority of consumers. At the same time, other factors (flavour, ambience) also could affect food choices, food intake and appetite. In discussion progress, however, owing to the fact that colour could influence flavour and the factor of food colour should be paid more attention than ambience which is the less effective element on people's appetite. The study of effects of food colour on appetite has been considered by many scientists. Counsell (1981), Hutchings (1994), Petit (2006) and Robyn (2010) indicant that colourful foods do stimulate effectively people's appetite when consumers notice the food before consuming. It should be noted that a detailed examination of others factors such as food shape, social variables and time-related characteristics affecting appetite lies outside of the parameters of this paper and further work could be done in this area. This would be of particular interest to those involved in the identification of natural and artificial food colour and could help avoid the problems encountered by consumers who are cheated by some pusher. References Alley, R, L. (1998) ' The influence of physical state and colour on perceived sweetness'. Psychology 132 (5), 561-568 Berrin, F. (1969) Principles of Colour: a Review of Past Traditions and Modern Theories of Colour Harmony. London: Van Nostrand Reinhold Boym, C. (2001) ' My McDonald's'. Food and Culture 1(1), 6-8 Bre´zinova, V, O. (1972) ' Sleep after a bedtime beverage'. Br Med J 2(1), 431 Counsell, J, N. (1981) Natural Colours for Food and Other Uses. England: Applied Science Publishers LTD Dalzell, J, M. (eds.) (1997) Ingredients Handbook Food Colours. Surrey: Leatherhead Food RA Hutchings, <https://assignbuster.com/the-important-effects-of-food-colour-on-appetite/>

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