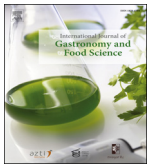

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Scientific paper

Imagined salad and steak restaurants: Consumers' colour, music and emotion associations with different dishes

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Abstract

The aim of the present study was to examine people's colour, music and emotion associations with dishes from two imagined restaurants. We conducted an experiment where we asked two study-participant groups to match interior colours, background music and desired emotional states for either a salad restaurant or a steak restaurant. To evoke associations we used two dish photos – a salad and a steak dish. The hypothesis was that the study participants would choose different background music and colours for different imagined restaurants. The results show that the most often selected colour, music and musically evoked and desired emotions in the salad group were Kiwi (lime colour) combined with Jazz, Pop and Soul music, and Peacefulness and Joyful Activation. In the steak group the selections were Bordeaux (dark-red colour) combined with Jazz and Classical music, and Peacefulness, Transcendence, Tenderness and Joyful Activation. The results were discussed in terms of articulation theory that is widely used in critical cultural studies. The differences between the groups showed that the study participants made different kinds of articulations: the answers in the steak group emphasized romantic classical music and luxury, while the salad group emphasized vital (healthy food, dancing) and hedonistic (joy, pleasure) values. The results indicate that: (1) generally people value peaceful eating environments; (2) people choose different visual and auditory stimuli for an eating environment depending on the food menu; and (3) customers, in this case, expect a connection to their previous cultural experiences with salad and steak restaurants.

Keywords: Colour of food; Music; Emotion; Eating environment; Articulation theory

Introduction

Eating environment has a deep impact on our food choices and enjoyableness of food (Garcia-Segovia et al., 2015; Spence and Piqueras-Fiszman, 2014; Stroebele and De Castro, 2004; Clydesdale, 1993). Environmental factors, such as colours of the eating environment and food, sounds, scents, lightning, and temperature, all influence our perception of food, our food choices and the amount of food we consume. For example, studies have demonstrated that visual signals of colours or dishes may raise one's spirits and impact one's conceptions of food and food-intake (Privitera et al., 2013; Wadhera and Capaldi-Phillips, 2014). Also, it has been shown that music influences people's purchasing decision when choosing between two competing products (Yeoh and North, 2010; North et al., 1999). The impact of environmental elements on food choices has been widely recognized (Sharma and Stafford, 2000) and occasionally, environmental impact is even more significant than the product itself (Suda et al., 2001).

Influence of colours

Colour is not only about aesthetics, but can hold special meanings to people. A colour can affect people through

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learned associations or biological inclinations. Simply the perception of a colour creates psychological processes, generating motivated behaviour. Both the processes and behaviours take place instinctively (Elliot and Maier, 2007).

The visual appearance of the food product is usually the first sensory stimuli people notice – we see a meal before we eat it. Especially for fruits and vegetables, colour is considered to be one of the most important attributes of a food product's appearance. The anticipated safety, sensory quality, aesthetics, acceptability and selection of and preferences for food products are all affected by colour (Clydesdale, 1993; Cardello, 1996; Tuorila and Appelbye, 2008; Gössinger et al., 2009; Fernández-Vázquez et al., 2011).

Colour preferences for foods are the result of experience, culture, conditioning, and learned associations (Clydesdale, 1993; Cardello, 1996). Studies conducted in Europe and Asia argue that bright green and red hues are considered to be the most preferred colours for food (Prokop and Fančovičová, 2012; Lee et al., 2013). Colour preferences vary in different object contexts (Labrecque et al., 2013), e.g. brown hues are preferred for steaks and other meat dishes, whereas brown vegetables are not acceptable; and, while blue is one of the most popular colours, it is the least appetizing in food products.

The appearance and colour of a meal stimulates or depresses the appetite (Hutchings, 1999; Garber et al., 2001). Zellner et al. (2014) notice that people prefer meals that are plated in an attractive way. Colour increases the attractiveness of the balanced presentations of food on a plate (Zellner et al., 2010). In addition to the colours of food, the colours of plateware also influence people's perception of the food (Spence et al., 2014). The effect of plateware greatly varies depending on the type of food served.

In addition to food colour, environmental colour affects psychological processes and behaviours. Mehrabian and Russell (1974) divide relevant perceptions into three separate factors, pleasure, arousal and dominance that have been widely used as a basis for environmental colour study since. Other researchers find that bright warm colours, such as red and yellow, increase the level of arousal and therefore attract customers, but can also overstimulate them to eat fast and leave early (Robson, 1999). Such bright colours are often used by fast food chains. According to Appleyard (1979), one of the three modes of perception, the inferential, focuses attention on something that substantiates previously learned knowledge of the environment. Thereby, it is assumed that a connection between colours usually seen in a certain type of restaurant and the type of food served in those restaurants could unconsciously affect the dish–colour pairings selected by the participants in the present study.

According to Stroebele and De Castro (2004) the ambience of an eating environment affects food choices and preferences. Not only can colours direct attention towards particular options, but they may instigate certain emotional responses. Bright colours appear to arouse and stimulate, whereas dark colours seem to relax. Room colours seem to influence people's mood in relation to eating behaviour (Stroebele and De Castro, 2004). Bell et al. (1994) demonstrate that when the environment reinforces a food theme (e.g. ethnicity), one's acceptability for food increases. Further, when environmental cues are congruent with each other, consumers are more satisfied and rate their environment more positively than when environmental cues are incongruent (Mattila and Wirtz, 2001).

Influence of music

Similar to colours, music also influences people's behaviours and choices. Since the 1960s researchers, mostly in the fields of consumer research and psychology of music, have been interested in the use of background music in commercial environments, such as supermarkets, restaurants, shopping malls or online shops. For example, it has been demonstrated that loud or fast music leads people to move and also to eat and drink more quickly (Smith and Curnow, 1966; Milliman, 1982; Roballey et al., 1985; Milliman, 1986; McElrea and Standing, 1992), whereas slow music in a minor key leads people to spend more time and, consequently, increases consumption (Knöferle et al., 2012; see also Milliman, 1986). Furthermore, it has been suggested that music modifies people's first impressions of products (Zander, 2006), and influences their choices when deciding between two competing foods (Yeoh and North, 2010).

In the search of an explanation for music's ability to affect people's behaviours, choices and attitudes, North and Hargreaves (2010) observe that earlier studies on commercial use of music constitute three clear strands of research. The first one is *musically induced pleasure and arousal*, deriving from the assumption that a customer's mood influences his or her attitude, and further, their purchasing intentions. The second strand is *knowledge activation effects*, meaning that music activates in a listener knowledge that fits to a given product (*musical fit*), leading the consumer to choose that particular product. The third strand concerns research on *time perception among people who are waiting*. For the present study, the first and second research strands and their findings are relevant.

For centuries, relationships between colour and music have been continuous interest among artists, scientists, philosophers and psychologists. Recently attempts have been made to model the relationship between music and colour based on correspondences between their physical properties, e.g. psychophysical theory that explains the relationship between music and colour as a function of amplitude and wavelength (Pridmore, 1992). On the other hand, there are also theories focusing on the similar emotional experiences that colour and music can create, such as “happy” colours are associated with “happy” music (Whiteford et al., 2013). In a Palmer et al. (2013) study, participants associated faster music and major mode with lighter, more saturated, yellower colours, whereas slower music and minor mode were associated with darker, desaturated, bluer colours. Also, their study found a strong correlation between the participants’ emotional associations with the music and their chosen colours to fit the music.

Within the framework of musically induced pleasure and arousal, we presume that the study participants’ choices of