

Is it ethical to use sensory marketing for food products: A perspective regarding sense of taste?

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Abstract

Marketing strategies often use some aspects of human nature balancing among ethics and profit. Sensory marketing is based on “embodied cognition” the concept that bodily sensations help to determine human decisions without conscious awareness. Consumers don’t perceive such messages as marketing and don’t react with the usual resistance. Taste is unique among other sensory systems in its instinctive association with mechanisms of reward and aversion, related to close contact with consumer. The background of obesity is in interaction of genetic, metabolic, behavioural and environmental factors: the rapidity with which obesity increases suggests that behavioural and environmental influences are accelerating the epidemic. Traditionally, “addiction” is applied to the abuse of drugs that activate the brain’s reward pathways. There is wider understanding of the term including so-called “behavioural addictions” including compulsive overeating phenomenon. Food addiction is described as loss of control, overconsumption and withdrawal symptoms experienced in relation to highly palatable foods. It is proposed that some foods have the potential for abuse in a manner similar to conventional drug. This article argues a concept of ethic in marketing when classifying obesity as an addiction. If so, sensory marketing targeting food is doing much more harm way than we thought.

Keywords: Food marketing; Sensory marketing; Obesity; Food addiction; Public health

Introduction

Marketing is influencing all aspects of our living; it is not only offering products but also shaping everyday life. Marketing strategies often use some aspects of human nature to create better results, balancing among ethics and profit. Marketing driving strategies use more and more biological science to get bigger part in the market share and to changes consumers’ cognitive structures (i.e. as “shaping consumer tastes”). It is a new approach, contrary to the old one aiming to respond to consumer expectations. The decision between doing the right thing and making money raises questions when it comes to ecology, social justice, or important public issues like obesity.

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Obesity

Obesity is one of today’s most neglected public health problems. Lifestyle adjusted to suit the individual person is not appropriate to the physical constitution of Homo sapiens. Increasing energy consumption, decreasing energy expenditure, or a combination of both has led to a positive energy balance and weight gain. Excess weight increases the risk of multiple conditions, including cardiovascular disease, type 2 diabetes and cancer, the leading causes of morbidity and mortality worldwide. Obesity does not only cause extensive health damage; it also results in a tremendous economic burden.

The background of obesity is in interaction of many factors, including genetic, metabolic, behavioural, and environmental ones. An environment containing stimuli that encourage obesity is said to be “obesogenic”. The rapidity with which obesity is increasing suggests that behavioural and environmental influences are those accelerating the epidemic, not biological ones.¹ Obesity is affecting also the young generations; it seem that unhealthy environments and food advertisements are foremost factors of childhood obesity.²

Obesity and marketing

Food-related decision-making can be influenced by perceptual salience; if multiple food items are present to consumer exogenous features are likely to draw attention.³ Having such ideas in mind the area of psychological marketing is developed, known as “sensory marketing”. It is based on “embodied cognition” the concept that bodily sensations help to determine human decisions without conscious awareness. Consumers don’t perceive those messages as marketing and don’t react with the usual resistance.⁴ Such marketing strategies are incorporated in our lives and we do not notice them. Why do you buy items during the winter that smell like Christmas (cinnamon, gingerbread, orange, and apple)? Why do you buy a junk food with “Mediterranean” prefix while listening to last summer popular Italian song? While drinking sweetened, carbonated drink do you feel that TV advertising of happy beautiful people becomes reality? Isn’t soft and warm bread the most appealing one? Why almost everybody likes sugary, fatty and creamy food with a pleasant flavour (the taste of breast milk)?

Gustatory system

The sense of taste is the most intimate one since it is related to close contact with consumer. The gustatory system is the part of sensory nervous system partially responsible for the perception of taste. Sweet, bitter, salty, sour, and umami are the five basic tastes recognized by humans. Sweet and umami signal the presence of nutritious substances, bitter and sour prevent the ingestion of toxic chemicals, and salty indicates the presence of electrolytes.⁵

The crucial role of the gustatory system during evolution was to detect potentially toxic nutrients or to detect indicators of spoilage. Initially, the sense of taste provided information about the quality and nutritional value of food before ingestion and ensured survival.⁶ As the human brain evolved and body volume in-

creased, tooth and gut size decreased. Nutritional characteristics also evolved in conjunction with the high metabolic demand of large brains.⁷ Following body composition changes, nutritional characteristics also evolved in conjunction with the high metabolic demand of large brains. Over the time, human nutrition has become more efficient so that sufficient energy intake can be achieved with minimal time and effort.⁸ As civilization developed, eating also became a social event frequently practiced as a group ritual. Eating represents human sociability and indicates one's place in society. The experience of pleasure during eating became a fashionable feature of cultural representation.⁹ Finally; eating patterns reflect not only social interaction and economic status but also state of mind. People develop a "relationship" with food, occasionally trying to eat healthier, developing cravings, over-eating or losing appetite. However, the brain mechanisms involved in eating habits are still being explored.¹⁰ Taste information is sent to the part of the brain responsible for the feeding. Taste is unique among other sensory systems in its instinctive association with mechanisms of reward and aversion. The stimulated areas are closely related to regions where addictive substances act (benzodiazepines and endorphins) together with mesolimbic dopamine system (regulates movement, emotion, motivation and the feeling of pleasure).¹¹

Food as an addiction

Traditionally, "addiction" is applied to the abuse of drugs that activate the brain's reward pathways. But recently there is wider understanding of the term including so-called "behavioural addictions." While exploring compulsive overeating phenomenon, it is proposed that some foods, such as those that are sweet, salty or high in fat, have the potential for abuse in a manner similar conventional drug.¹²

Food addiction is described as loss of control, and overconsumption experienced particularly in relation to highly palatable foods (sweet and fatty). A Yale Food Addiction Scale was developed to measure characteristics common to both substance and food addiction i.e., craving, loss of control, excessive consumption, tolerance, withdrawal, and distress/dysfunction.¹³ Even more, patient suffering from binge-like eating disorder (recurrent episodes of quick eating large quantities of food, to the point of discomfort, without control, experiencing guilt afterwards) have clear withdrawal symptoms. Positron Emission Tomography (PET), functional Magnetic Resonance Imaging (fMRI) and structural imaging studies found functional and structural changes in the mesolimbic pathways shown to be involved in drug and food addiction.¹⁴

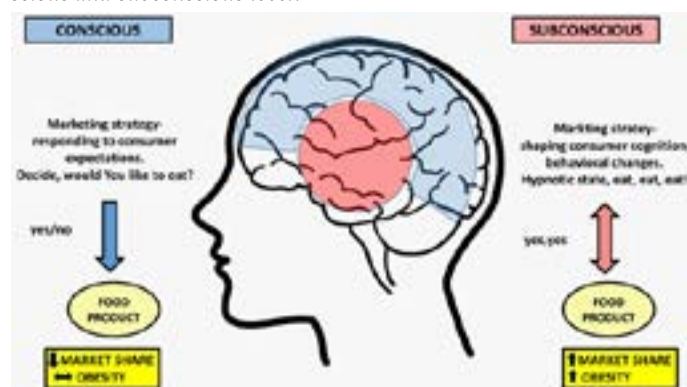
Ethical Consideration

Food marketing is targeting children and families by using TV advertising, sports and celebrity stars recommendation and interactive digital technologies. They are building brand loyalty to promote low-nutrient, quality poor, energy-dense foods and beverages. If we classify obesity as an addiction are, we doing much more harm by marketing food in inappropriate way than we thought? Even some market specialist recognize that particular market driving strategies require consideration of ethical issues, i.e. entrepreneurs can be tempted to engineer consumer preferences in a way that in reality significantly reduce consumer welfare.¹⁵

Different people respond differently to specific stimuli and it is not mandatory that everyone is going to get addicted with food. Also, some market specialist claim that consumers, as rational decision makers, have the right to consume food they choose

with their personal responsibility. Certainly, there is also a concept of ethical marketing proclaiming honesty, responsibility, fairness, respect, transparency etc.,¹⁶ but what if choice is beyond our will? What if we are manipulated beyond our conscious awareness? It seems that we are unwillingly becoming addicted by a hypotonic marketing procedures by the power of repetition, power of metaphor, mental imagery etc. (Figure 1)

Figure 1: Marketing strategies targeting food consumption in conscious and subconscious level.



I short, having in mind epidemic of obesity (especially among children) there are some question to be answered.

Is possible to use scientific data as a window into consumers' psychology? Yes.

Are such data in use every day sublimely changing our lives? Yes.

Are they changing our behaviour for worse? Yes.

Are obese patients called consumers? Yes.

Is it ethical? No.

Supplementary Material

Figure 1 Marketing strategies targeting food consumption in conscious and subconscious level.

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None

Author Contributions

MB was responsible for the concept of manuscript, wrote the medical part regarding the sense of taste, MS was responsible for the part arguing marketing strategies, and FB was responsible for the ethical part and the graphic.

Conflicts of Interest

The authors have no competing interests. The authors of this paper did not receive any financial resources for publication and authorships.

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Commentary Article

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