

Shopping environment dynamics and consumers' healthy food purchase

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Abstract

Obesity and several other negative persistent health conditions may be, in part, associated with the way in which people are conditioned to purchase and consume food. While the food industry is successfully promoting and making available many products, the public health system is struggling to inform and encourage health-food' consumption. A review of this situation with a particular emphasis on healthy food marketing strategies (aimed at consumers' food-selection) propitiated the development of a theoretical model to be used as a conceptual foundation for further evidence-based research oriented to interventional campaigns to be applied into the field of health-food shopping.

Keywords: shopper, health-campaigns, environment, consumer-behaviour, supermarkets

Track: Marketing and society

1. Introduction - Health-food campaigns and shopping

A wide and prolonged array of public health campaigns have been planned and implemented globally to inform the public of the risks associated with unhealthy food consumption. However, the results of these campaigns have been generally discouraging as judged by the growing levels of obesity and other food-related health problems, across all age groups, in virtually most industrialised and developing countries (Swinburn et al., 2011; Galizzi, 2012; Smith, 2012; Lachat and Tseng, 2013). In Europe, for instance, countries such as Germany and England have been persistently taking actions for preventing food-related disorders, but their efforts have not been successful in preventing or reversing the conditions (Font, et al. 2013; Hersey, et al. 2013; McCarthy et al. 2013). Given these circumstances a conceptual investigation with a different perspective (aiming to review the drivers of food shopping dynamics) may be helpful to identify consumers' food-selection conditioning and environmental influences that could be strengthening the food-related problems and the ineffectiveness of health-promotional campaigns.

Commonly, the approaches of food-related public health initiatives are to consider shoppers responsible for their unhealthy food-selection behaviour; therefore their instructions and interventions tend to require knowledge and self-discipline by the shoppers (Schorb, 2013). Consequently, the core objective of most health interventions campaigns has been to encourage shoppers to buy and consume limited quantities of high energy food (fats and sugars) and highly processed aliments; and to increase purchasing and consumption of fruits and vegetables, as well as engaging into active lifestyles or regular exercise (Carrera-Bastos et al., 2011; Francis and Stevenson, 2013; Font, et al. 2013; Hersey, et al. 2013; McCarthy et al. 2013). Arguably, this may not be the optimal way of tackling these health-food shopping related problems.

2. Review- Individuals' food-selection and population's health

It has been indicated that the more a health-food campaign is focussed on individuals, the less it would be socially effective in changing population's healthy food selection dynamics, because many environmental factors are important mediators of possible change of behaviour, in terms of policies and individual possibilities (Swinburn et al., 2011). Environmental and biological conditions have shaped and determined patterns of behaviour in response to food availability and food choosing; the history of human food consumption and evolution, partly, explains it (Galef, 1996): External pressures from recurrent survival motivations and availability of food, like gathering of food, storing it, hunting, avoiding predators, building and preserving families/social links have shaped human sensory responses to stimuli like colours, flavours, scents, etc. (Saad, 2007; Morris, 1967). Therefore, human food consumption patterns are seen as adaptive with respect to environmental circumstances (Galef, 1996); and the human mind has been structured to detect changes in the environment and respond to them, mostly through the vision sensory function, which is said to provide about 80% of human's learning processes (Hill, 2003). Thus, using vision stimuli in conjunction with other senses, humans collect, store, and recall what they have been exposed to; and they systematically differentiate between familiar or known elements from unfamiliar and unknown elements in their environment (Morris, 1967; Hill 2003; Schwartz, et al 2003; Martin, 2012). This effective distinction between the known and the un-known environmental elements is performed by the amygdala, also known as the primitive brain or habitual mind. This part of the brain controls this function without any need for conscious thinking (Hill 2003; Schwartz, et al 2003). Therefore the memory, specifically, the perceptual memory, serves as a quick novelty detector (Johnston, Hawley and Elliott, 1991), which helps humans to distinguish without a need for elaboration and conscious thinking between: safety or threat,

friend or foe, and appropriate or inappropriate food sources and types (Morris, 1967; Hill 2003; Schwartz, et al 2003; Martin, 2012). As a result, reactive decisions have constructed pre-humans and human experiences, and eventually those experiences were turned into fixed patterns or habits of food selection. For instance, research on apes has shown that primates follow certain cues to identify suitable foods: fruits' light reflection and specific colours of baby leaves indicate them the nutritious content and values of food items (Dominy et al., 2001). These predispositions occasionally can be described as a preprogrammed way to react rapidly to particular stimuli in order to prevent the penalties of missing out on opportunities by wasting time and effort in obtaining food (Morris, 1967; Hill 2003; Schwartz, et al 2003; Martin, 2012).

Consequently, biologically, and from experience, humans have learned how to respond to environmental triggers such as: contexts, variety, locations and other environmental conditions. Hence, it may be suggested that human's contemporary responses to food can be triggered without any premeditated goal; but at other times this reactions can be the residual of past intended goals. To exemplify this, a routine for obtaining information was presented by Wood and Neal, 2007, indicating that a person is purchasing a specific newspaper every morning with a cup of coffee; initially that action can be guided by the goal of acquiring information from the newspaper, but eventually cognitive reasoning about that goal is less and less necessary, because the action of purchasing a newspaper, when repeated overtime, becomes integrated to morning coffee-purchase. So, the whole behaviour, or a part of it, can be triggered by relevant cues, for instance: the sight of a barista, the aroma of coffee, etc. (Wood and Neal, 2007). So, it may be suggested that early humans executed their preprogrammed patters for gathering and hunting over two million years and were biologically and environmentally adapted to choosing their meals as quickly and as easily as possible. Nevertheless, nowadays people are faced with new characteristics of food selection in supplier controlled and manipulated environments; and perhaps the behaviour that once was a preprogrammed advantage, today, may be causing a substantial health threats for humanity (Cordain, et al 1998; Carrera-Bastos, 2011).

Controlled shopping environments of food suppliers

Thousands of years ago the evolved routine of food hunting and gathering changed into food production: agriculture/farming. This new method has had a big impact in human life because it relieved people from previous food adaptive-pressures. However, the reliance on land's cultivation and animal domestication seems to be excessively new, from an evolutionary perspective, to actually have a bio-physiological or genomical effect over human's preprogramming/training of food selection and ingestion (Cordain, et al 2005; Francis and Stevenson, 2013). Therefore, the brain structures that thousands of years ago were actively working to avoid missing out on suitable meals today are still influencing food selection with rapid and habitual patterns (Martin, 2008). Moreover, contemporary food-selection's routines comprise matters beyond merely survival issues, particularly for western societies, because of the existence of various forms of food production, refrigeration, transportation and food processing, which facilitate food availability regardless of season, location and time (Scapp and Seitz, 1998). Additionally, many food choices are now pleasure-seeking items (hyper-aesthetic of eating) and not just a survival aid (Scapp and Seitz, 1998). This is better observed in post-industrial societies where patented products of sensory stimuli are created to promote and satisfy shoppers via food acquisition and consumption. This is happening especially within supermarkets because they are developed to provide various consumer shopping experiences by appealing to shoppers sensory perceptions (Howes, 2004; Howes, 2005; Philippopoulos-Mihalopoulos, 2013). Therefore,

the food industry has carefully enthused the food-selection's processes by designing shopping atmospheres and inventive product's promotion. For example, the warm smell of fresh cookies near the bakery; the appealing food packaging, and the in store music and commercials, are all subjects of intense marketing studies (Howes, 2004; Philippopoulos-Mihalopoulos, 2013; Scapp and Seitz, 1998). As a result, arguably, this new dimension of human-food relationship has contributed to people's health deterioration (Morland, Diez Roux, and Wing, 2006).

Selling food to humans' perceptions

If the previously explained principles of food-selection are related to food-packaging and shopping environments, it is possible that healthy and/or unhealthy food shopping decisions are aided by processing basic elements or cues in the food-shopping environment. The proper use of these cues may influence consumers' food choices and/or their repeated patterns of purchase. For instance, food marketers use colours, locations, pictures and typefaces for food presentations and elaborate packaging graphics and formats; because these elements are good resources as they are grouped by the mind on the basis of previous learning and similarities, in order to generate visual representations to be matched against shoppers' memories; which are reinforced by advertising messages and previous exposures to them (Humphreys and Bruce 1989; Humphreys, Price, and Riddoch, 1999; Riddoch and Humphreys, 2001; Pinero de Plaza et al. 2010; Pinero de Plaza et al. 2012). Therefore, it appears that consumers decision-making on food choices follow two directions of processing food-environment' stimuli: (1) Top-down (prior knowledge and experience) and (2) Bottom-up (prominence of elements, pieces or cuing processing) (Rutishauser, et al., 2004; Viceli and Alpert, 2003; Geistfeld et al., 1977).

These two routes of internal processing can propitiate: food item's familiarity and retrieval. Both paths are meant to contribute independently and jointly to the process of buying in supermarkets environment. For example: familiarity aids responsiveness and attraction to the food by a feeling of knowing, liking or trusting its appearance (a familiar effect). It is described as the degree to which elements of the packaged-food or the environment are assimilated and perceived as being coherent to the shopper (Vanhuele, 1995; Mandler, 1980). The second route of memory food processing is retrieval of information. It occurs during the deliberate action of selecting a branded food: The shopper stops and consciously thinks about the packaging, remembering and recalling the sources of that feeling of familiarity, which transfers the person into a retrieving mode. It requires deeper memory involvement, stronger links between the stimuli and many other multi-layered actions in the mind of the consumer (Vanhuele, 1995; Mandler, 1980). These theories help to explain that food buying is an issue of conscious/unconscious recognition which involves brain pre-setting with information ("Top down"), and selecting parts of it to make them relevant ("Bottom up"). Therefore, from a marketing perspective a campaign about buying healthy or unhealthy food has to combine the forces of advertising and branding in order to get into the shopper's memory. The selection of a food product may be co-dependent to consumers' habitual behaviour patterns and the food item's physical-availability, in terms of easier and convenient shopping (Sharp, 2010). It is not just about communicating the rationale of health-quality, it is about using the elements that the shoppers are familiar with, because buyers are inclined to recognise and purchase what they feel they know (or have developed affinity with) and what they have purchased time after time despite of what they verbally report or think that represent their feelings or beliefs about food (Sharp, 2010). So, familiarity (recognition via cuing or triggering) and convenience (physical availability) help product 'saliency' (the shopper's propensity of thinking about a branded food during a buying

circumstance) (Sharp, 2010; Olson and Thjømmøe, 2003). Thus, when a food product is liked it may be seen as familiar or easy to detect, and if additionally, it is accessible in terms of ability to locate and purchase, it may become salient, and more likely to be included in the shoppers' product consideration set (the group of brands he/she 'thinks of' when buying) or in their brand repertoire (what they often buy) (Sharp, 2010). Consequently, incidentals exposure to any marketing activities related to food items, potentially, increases the chance of the product being judged as acceptable for inclusion into the shoppers' consideration set (Janiszewski; 2001) and eventually, if possible, into their repertoire.

3. Foundation model for healthy food' shopping campaigns

Recent neuroscience findings suggest that one reason that people may be prone to engage into unhealthy activities, like unhealthy food shopping and eating, is due to having heightened brain response to food triggers (Demos, Heatherton, and Kelley, 2012). This may imply that rich cuing environments are influencing consumers via specific triggers for unhealthy food shopping and consumption despite their conscious intent to avoid them (Wood and Neal, 2007; Martin, 2008; Thornton 2012; Thornton 2013). Below, Figure 1 presents a theoretical model which shows how physical and perceived environmental conditions may be aiding unhealthy food shopping. Its conceptual basis, for a health campaign, is innovative because it is tapping on accepted facts about behavioural change (Skinner, 1967; Aarts, Verplanken and Knippenberg; 1998) as it implies that the recurrence of a habitual behaviour is influenced by the occasion of performing that behaviour under analogous, if not almost matching circumstances, to where the patterns were taught to be activated and executed, and where eventually they became a routine (supermarkets environments). Consistently, if unhealthy food shopping routines and habits are understood as entrenched within available and convenient environmental characteristics of food packaging, supermarket designs and layouts; and additionally, tied to the shoppers' memories with information, marketing and branding strategies. Then, it may be possible to influence them with interventional campaigns directed to manipulate these triggers.

Figure 1: Conceptual model of environmental conditions affecting food shopping



Finally, it is fundamental to understand that this is a multi-layered and systemic problem which is affected by numerous influential factors that are not included in this review; but the suggested conceptual and theoretical model is using proven marketing and behavioural approaches (Skinner, 1967; Sharp, 2010) and consequently, if successful within the area of food-health promotion, it may assist diminishing the current habitual unhealthy food shopping routines, and perhaps, reducing public health expenses. For instance, the total annual cost of obesity in Australia, 2008, was estimated at around \$58 billion (ABS, 2013).

The second stage of this study will aim to investigate and progress the conceptual model in an attempt to quantify the influences of various drivers affecting and maintaining consumers' unhealthy food shopping. This identification may be oriented to provide the academia with insights in the area of health promotion and ultimately it would be of interest for the food industry, policy-makers, marketing practitioners, and eventually of benefit to shoppers' quality of life.

4. References

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