

Conceptualizing Healthy Food: How Consumer's Values Influence the Perceived Healthiness of a Food Product

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Abstract The healthy lifestyle trend represents an opportunity to food manufacturers to redesign their marketing strategy for healthy food products. The prevalent strategy of posting nutritional information may not be effective because consumers use general heuristic cues to infer how healthy is a product. The purpose of this study is to extend the comprehension of the healthy food concept from a consumer perspective by assuming values are the basis to conceptualize healthy food. A qualitative approach was applied to collect in-depth information from a group of consumers with different demographic profiles and health motivations. The qualitative information is analyzed using as reference the food consumption value framework. The results of the thematic analysis indicate consumer's conceptualization of healthy food is elusive, imprecise and intuitive. Product and process values are utilitarian values consumers use to assess how healthy is food. However, the physical setting and more intangible values such as the feeling of taking care of oneself also influence healthy food preferences. Based on these findings, a definition of "healthy food" based on four food values is proposed. This consumer-based definition of "healthy food", in addition to the conventional product-based definition, may be used by governmental health institutions and food manufacturers to persuade individuals to make healthier food choices by using more emotionally evocative and cognitively effortless food-related communication regarding the healthfulness of food products.

Keywords: *healthy food, food marketing, healthiness perceptions, food consumption values, food industry, Mexico*

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1. Introduction

The food that people consume has important implications on their health. Differences in the consumption of nutrient rich versus nutrient poor foods have been linked with differences in weight status in children [1] and adults [2]. Additionally, diet has been linked to chronic diseases such as diabetes and cardiovascular diseases [3]. Therefore, there is a growing interest in understanding both the distal (e.g. the socio-cultural context) and proximal (e.g., taste and availability) factors that influence food preferences. Information regarding what drives food preferences is not only useful to health associations and governments for the design of communication campaigns and interventions aimed to influence food choices, but also for food manufacturers looking to respond to the demands of the health-conscious segment market. The cooperation of the food industry with public health organizations is critical for the development and promotion of healthier products [4].

In an effort to help the population to eat healthy, several countries [5] have outlined food classification systems and defined diet guidelines [6]. For example, the US

Department of Health and Human Services [7] establish five dietary guidelines: 1) Follow a healthy eating pattern across the lifespan and maintain a healthy body weight; 2) Choose a variety of nutrient density food from each nutrient group within calorie limits; 3) Limit calories from added sugars and saturated fats and reduce sodium intake; 4) Shift to nutrient-dense foods and beverages according with cultural preferences; and 5) Support healthy eating patterns for all. Illustrations of food that fit with these guidelines are provided. For example, from a nutrition standpoint, fruits and vegetables have a higher nutrient density than sweet foods (ice cream) and fats (fried food) [8]. The Food Classification System (FCS) developed by the National Heart, Lung and Blood Institute and the Dutch Guidelines for Food Choice 2011 [9] categorizes products into three groups: 1) *Go or preference products* that are low in calories, fat and sugar and can be eaten daily; 2) *Slow or occasional products* that are higher in fat, sugar or calories but can still be part of a healthy diet if consumed a few times a week and in smaller amounts; 3) *Whoa or exceptional products* that are the highest in fat, salt, sugar and energy and should be eaten only in special circumstances.

In the case of manufactured food, health claims and especially nutritional labels are the main approaches used

to inform consumers about the nutritional content of the product [10]. However, the use of these tactics presupposes consumers are able to process this information, while according with several studies, consumer's food choices are "fast and frugal" decisions based on simple heuristics such as food type and brand [11,12,13] and naive thinking about food and nutrition [14,15]. These studies recognize nutritional labeling requires an effortful cognitive process which assumes consumers have the nutritional knowledge required to understand and use the information provided by food companies and health institutions [10]. However, several authors have concluded [16,17,18] consumers' attention focus mainly on the packaging design elements, flavor and brand familiarity, while food nutritional information is only used by highly-health motivated customers.

There are several studies that show individuals have their own healthiness perceptions, not always based on the product nutritional content. For example, Eikenberry and Smith [19] found Minnesota consumers state a wide range of definitions for healthy food. Interestingly, a high percentage of respondents define healthy food by naming a specific product, e.g. dairy or meat. Only less than 5% of interviewees define healthy food in terms of its nutritional content (e.g. vitamin content and amount of sugar and sodium) and the naturalness of the product. The results of this survey also show preventing, maintaining or treating a disease, weight control and family preferences are the main motivators of healthy food choices. Among the most important barriers to healthy eating there are time of preparation, price and taste. More recently, Lusk [20] conducted a national survey of over 1,200 US consumers to determine how consumers define natural and healthy food and how useful are labels and claims to assess the healthiness of a product. The results of this study indicate healthiness is a personal notion determined by individual needs. In contrast with the study of Eikenberry and Smith [19], about half (52.1%) of the respondents to this national survey believe the nutritional content of food defines its healthiness. However, 47.9% believe the healthiness of food is determined by other factors such as the origin and the processing of the product.

The previous studies put forward the following facts: 1) customers have their own perceptions/beliefs regarding what is healthy food; 2) personal underlying motives/needs determine the value individuals assign to the health-related aspects of a product and 3) customers not only look at the nutritional content of food when assessing their degree of healthiness. Additional research is needed to understand how individuals conceptualize healthy food in order to reframe the traditional "healthy food" definition which is mainly based on the utilitarian value delivered by the product attributes [21]. Specifically, the following research questions result of interest:

What is the role of different values in the consumer's interpretation of healthy food?

How food consumption values may be used to communicate the healthiness of manufactured food products?

By answering to these questions, this study aims to build a consumer-based definition of healthy food based on an extended number of value drivers that may be used as reference to revise the current communication strategies of food manufacturers and health organizations.

The literature on consumer's food choices suggests different underlying motives govern food preferences, therefore, the evaluation of food is dependent on the individual's priorities. One of the first studies that explored this approach was performed by Steptoe et al. [22] who developed a food choice questionnaire (FCQ) 20 years ago. This scale comprises nine factors related to the product's attributes such as sensory appeal and price, but also factors related to the personal interest in achieving certain outcomes and goals. For example, the mood dimension is related to the interest of relaxation and stress control through food consumption. While, the ethical dimension reflects the concern for environmental and political issues.

Value theories provide a basis to explain food preferences and choices. For example, Aertsens et al. [23] offer an overview of Schwartz' values theory and use secondary data to show personal values provide abstract goals that result in the consumption of organic food. The attributes of organic food are related with values such as "security", "hedonism", "universalism", "benevolence", "stimulation", "self-direction" and "conformity". The results of this review indicate health, which is related to the security value, is the strongest argument for purchasing organic food. Furthermore, Dreezens et al. [24] conclude there is a significant relationship between specific values, beliefs and attitudes toward organic and genetically modified food. Meanwhile Worsley and Lea [25] examined the relationship between personal values and consumer's concerns about food and health. Their findings suggest that personal values identified as "beauty-nature", "enjoyment-health", "power", "moderate-independent", "devout-tradition" and "order-discipline" are stronger predictors of consumers' concerns about food and health issues than demographic characteristics. For example, disease concerns, expressed as the recognition of the relation between food and cancer or heart diseases, is positively related with beauty-nature, devout-tradition and order-discipline.

Based on the theories of human values [26], Lusk and Briggeman [27] propose specific food values are the underlying drivers of food choices. For example, people for whom self-centered values are the most significant, assign more importance to the food values of taste, price, safety and nutrition of food. Meanwhile, individuals with higher society-centered values select products that benefit all participants in the food supply chain. Then, the food origin, fairness and naturalness of the product would be more valued. Research also reveals that healthy food consumption may be related to psychosocial outcomes and values such as well-being, outward appearance and social responsibility. These abstract health-related motivations lead consumers to qualitatively create different healthfulness images for food products [28].

Lusk ([29], p. 452) formally defines the concept of food value as "a stable set of beliefs about the relative importance of meta-attributes, consequences, and "end states" associated with food purchase and consumption". According with this definition, product attributes activate consumer's personal values thus determining their food choices. Based on this premise, Lusk [30] extends the external validity of the food scale formerly developed by Lusk and Briggeman [27] and applies it to explain the

purchase of organic food in grocery stores. Because organic food combines health attributes with the origin and processing of products, consumers preferring this type of food have higher ecological and health values as confirmed by Ghvandize et al. [30]. These authors studied the influence of four values - healthy-conscious lifestyle, dietary patterns, environmental values and ethical concerns- on the derived utility assigned to two products (wine and yogurt) by consumers from three countries. The nutritional information of food received the highest valuation in all three markets. Moreover, consumers with health-conscious dietary patterns were more willing to trade-off the nutritional attributes of the product. More recently, Lusk [20] determined the importance of different food values on US consumers' food choices. Taste and price resulted the most important food values; healthiness and safety the third and fourth in importance. Naturalness was judged less important, while environmental impact, familiarity, and convenience were the least important food values.

By taking a consumer-centered approach, Dagevos and van Ophem [31] introduced the concept of food consumption value (FCV) which considers not only the physical or utilitarian attributes consumers use to select food products, but also the intangible benefits associated with food consumption. Therefore, the FCV considers not only the product meta-attributes but also the emotions, experiences and associations evoked during food consumption. Four elements constitute the FCV framework: 1) product value that refers to the safety, nutrition, price, convenience and sensory properties of the product; 2) process value related to the food production method, its naturalness and environmental impact; 3) locational value which consists of the physical setting and experience at the consumption place, and 4) the emotional value which refers to experience, entertainment, self-indulgence and evocative meanings arousing during food consumption.

In the particular case of healthy food, authors such as Puska and Luomala [28] question the conventional way of viewing healthfulness as a continuum with two extremes, healthy and unhealthy. They point out that consumers rely more on holistic processing of heuristic cues, such as the food type, name associations and the familiarity with the product/brand, than a logical approach when evaluating the overall healthfulness of food. The health-related motive orientation theory is applied by these authors to propose a multi-dimensional conception of food product healthfulness images. Depending on the dimensions of physical well-being, energy, emotional well-being, outward appearance, self-management and social responsibility, different healthfulness images of food products are constructed by consumers. Therefore, even though two products could be perceived as equally healthful, one dimension, e.g. physical well-being could be more strongly linked to one product than to the other. These findings provide initial empirical evidence of the potential existence of qualitatively different food product healthfulness images in consumers' minds depending on what they value.

Lusk [20] also argues food healthiness is not a single unifying construct, but a concept that comprises at least three different interdependent dimensions. The primary factor or dimension used by USA customers to judge how healthy is food is their animal origin; animal products are

judged healthier than those of vegetal origin. Then comes the degree of preservation of the product, the healthiest products are frozen and canned fruits and vegetables, while preserved animal products are judged unhealthy. Finally, there is the degree of processing of the product, the opposites of this dimension are fresh versus canned/frozen products. These dimensions may be associated to the product and process dimensions proposed by Dagevos and van Ophem [31], being relevant to explore how the other two dimensions, location and emotional, provide meaning to the healthy food concept.

2. Methodology

A qualitative approach to collect empirical data results appropriate to get in-depth information to explore the attributes, outcomes and end-states that individuals recall to identify and define "healthy food" [32]. A purposive or judgement sampling approach was employed to select individuals who are aware of the relation between chronic diseases and diet, either because of their educational level or because themselves or their close relatives suffer from chronic diseases. A maximum variation or "heterogeneous" sample was selected [33]. That is, individuals with different sociodemographic and psychographic profiles were chosen after a brief meeting to assess if their experiences and characteristics will contribute to the research. Twenty-one subjects were selected from a total of 35 candidates. The potential subjective and bias in choosing participants impedes generalizability. However, we check the group of participants includes individuals of different socioeconomic segments (low, middle and high), with different demographic characteristics (ages from 19-65 years old, males and females, and diversity in marital status, occupation and educational level), health status (with and without chronic diseases), health concerns and fully or not at all responsible of family nutritional regimen. Participants are residents of two cities in North Mexico (Monterrey and Monclova) and one city in Central Mexico (Cuernavaca). These cities are located in geographical regions with distinctive eating habits; for example, meat consumption is higher in the North part of the country. This adds diversity to the group of participants. In depth interviews lasting between 30 to 60 min were performed. A summarized profile of each of the 21 participants is detailed in Table 1. To protect the privacy of the respondents, their actual names were substituted by common Mexican names.

A guide of topics was elaborated to conduct the interviews. To begin with, participants were asked to mention five products they think are healthy, and five considered unhealthy. All participants cite as healthy food, products that are classified in the "Go" category (low in calories, fat and sugar) according with the Food Classification System [9]. This demonstrates participants have a minimum nutritional knowledge and initially associate healthiness with the product content. Then, the interview proceeded by covering the following topics: why participants think the food products they mention are healthy, why they consume (or not consume) these products and how they feel consuming them.

Table 1. Principal characteristics of the participants

Name	Age	Gender	Marital status	Occupation	Educational level	In charge of house food shop	Special characteristics
Margarita	57	Female	Married	Housewife	Technical degree	Yes	Low-income, responsible of looking after her sick husband's diet
Cesar	21	Male	Single	Student	University	No	Low health concerns, high income
Ana	28	Female	Single	Wedding planner	University	Yes	High health and weight-control concerns
Jose	50	Male	Married	Constructor	High school	No	Low-income, suffers chronic diseases
Noemi	49	Female	Married	Housewife	High school	Yes	Low-income, suffers chronic diseases
Araceli	65	Female	Married	Housewife	Technical degree	Yes	Low income, overweight
Manuel	60	Male	Single	HR director	Graduate studies	Yes	High income
Katya	19	Female	Single	Student	University	Yes	Middle income
Sergio	22	Male	Single	Student	University	Yes	Low-income
Angelica	62	Female	Married	Housewife	Elementary school	Yes	Low income
Claudia	48	Female	Single	Therapist and housewife	University	Yes	Responsible of her sick mother's diet
Adriana	27	Female	Single	Nurse	University	Yes	Highly concerned about her weight
Homero	65	Male	Married	Professor	University	Yes	High health concerns, suffers chronic diseases
Giuliana	26	Female		Professor	University	No	Low health concerns
Norma	50	Female	Married	Housewife	University	Yes	High health concerns, suffers chronic diseases
Gerardo	24	Male	Single	Graduate student	University	Yes	----
Viridiana	25	Female	Single	Student	University	Yes	Vegetarian
Marisela	52	Female	Married	Housewife	University	Yes	Responsible of the food intake of two siblings
Daniela	22	Female	Single	Student	University	No	Highly concerned about her weight
Abraham	31	Male	Single	University instructor	University	Yes	Highly concerned about the environment and fair trade
Sebastian	21	Male	Single	Employee of the family business	University	No	Low health concerns and overweight

The interviews were recorded on video, resulting in a total of 7 hours of interviews and a 60-page document that are the final data sources of this study. A thematic analysis was applied to the qualitative information following the process suggested by Braun and Clarke [34]: identification of patterns of meaning and issues of interest; generation of initial codes or categories based on the four FCV proposed by Dagevos and van Ophem [31]; sorting of codes into potential themes; iterative refinement of themes up to saturation; designation of themes and revision of initial codification. In the next section, the main themes are presented. Verbatim quotations are included to illustrate these themes. We translated quotations from Spanish to English as literally as possible as long as the meaning of the verbatim was preserved.

3. Analysis of Results

This section describes the main themes that emerged around how consumers symbolize healthy food. These themes correspond to the four components of the FCV framework, namely product attributes, process, emotions and location. During the interviews we notice that participants who are more concerned about their health status described more extensively their emotional state when consuming healthy food, while individuals with a higher nutritional knowledge cited more attributes related to the nutritional value of the product.

3.1. Product Value

Of the four components of the FCV framework, the most frequently and extensively used by consumers to articulate

what is healthy food is the product's constituents. In general, participants described healthy food as having "good" ingredients such as vitamins and minerals, and a low content of "bad" ingredients such as sugar, fat and salt.

"My major concern with manufactured food is their high sugar content." (Viridiana, 25, vegetarian).

"Sometimes, the claim in the package states it [the food product] has a small amount of salt, this is in an indicator to me that the product is healthy." (Sergio, 22 years old, low income).

"If I am going to eat a packed cereal I look for one with a high fiber content that improves my digestion, and also is low in sugar and calories." (Ana, 28 years old, highly concerned of her weight).

Discussion about healthy food with participants shows that some of them look at the nutritional information when judging product's healthiness but this information is not critical for the selection. Interviewees report that they mainly use the nutritional information when purchasing unfamiliar food products.

"I really do not know if [nutritional] labels are useful to decide what to purchase, I look at them but I am not sure if it is true what they say. But in the case of new products I read carefully what the nutritional label declares." (Homero, 65 year old, suffers chronic diseases).

"Typically, when I buy something I am not familiar with, I check the ingredients and their amounts in the label." (Manuel, 60 years old, high income).

We also found that the product category plays a more crucial role in food healthiness perception than the product's ingredients; thus confirming customers use a holistic approach to assess food healthiness [28]. Participants clearly make a distinction of products as

healthy or unhealthy depending on their category. Snacks are especially perceived as unhealthy while dairy products are judged as healthy.

“Well, thinking of healthy, I will say cereals [...], also cookies high in fiber, yogurt and milk.” (Guilliana, 26 years old, low health concerns).

“We know products such as Cheetos and stuff like that are very tasty, but how nutritious are they? I think zero.” (Ana, 28 years old, highly concerned of her weight).

“I think what I bought is healthy. Fruit, vegetables, cheese, ham, yogurt, cereal, granola.” (Angelica, 62 years old, low income).

I try not to eat so much junk food [...] because I know is innutritious and fatty, I do not want to be chubby.” (Daniela, 22 years old, highly concerned about her weight).

Finally, the price and taste were product attributes conflicting with health-related attributes. The tradeoff between health-related attributes and “conventional” attributes such as price and taste has been largely recognized in the literature and is considered a major barrier for the adoption of healthy alimentary behaviors [35]. In agreement with previous findings, Mexican participants perceive healthy products as more expensive and less tasty, being this a major reason why they are not preferred/purchased. We also notice that the price factor is a major concern for individuals of lower socioeconomic segments. Healthier products are also judged as less palatable, opposing with the “good” taste of the traditional Mexican food which usually has a high caloric content.

“Sometimes there are some foods that even if they are very nutritious and healthy, I do not eat because of their bad taste. And the price is definitely another barrier because with the current economic situation, sometimes the prices are very high.” (Claudia, 48, responsible of sick mother’s diet).

The most expensive products are the healthiest... I think they are more expensive because they have ingredients of better quality.” (Margarita, 57, low-income).

3.2. Process Value

Less processed, naturalness and freshness were words used indistinctly by respondents to describe products regarded as healthy. This is in agreement with previous studies that conclude there is a close connection between “natural” and “healthy” [36]. It was also evident consumers have their own perceptions and opinions on what is a natural product, thus confirming the lack of a formal definition of “natural” [37]. Naturalness perceptions are related to the way food was grown (e.g. organic products are regarded as healthier) and to the physical and chemical modification made to the product during its manufacturing. Rozin [38] notes severe chemical transformations during processing such as boiling and the addition of unnatural ingredients (e.g. chemical flavors) decreases more significantly the perceived naturalness of products with respect to physical transformations and the addition of other natural ingredients. This explains why canned foods were judged by some participants as particularly unhealthy.

“Organic cereal [is healthy] and also it has good taste and lots of fiber.” (Gerardo, 24 year old).

“[Talking about healthy products] Normally I don’t examine what the ingredients or the nutrients are, I rely on the product naturalness and low processing.”

(Claudia, 48 year old, responsible of sick mother’s diet)
“From my point of view, all canned food is unhealthy, the best thing is to prepare your meals at home using natural products.” (Margarita, 57, low income).

“From my perspective, it’s better to consume what is fresh to stay healthy.” (Adriana, 27, highly concerned about her weight).

3.3. Location Value

The place of purchase relates to the consumers’ perception of healthiness but its value in the characterization of healthy foods seems to be smaller than product and process values. According to Dagevos and van Ophem [31] location value comprises the physical setting (e.g. variety of food and ambience) and the experience characteristics (e.g. entertainment and personalized service). Place of purchase gives consumers a sense of belonging while the personalized attention increases the trustworthiness of the place. Reconnection with food local producers and retailers is valued for consumers because it enables control health [39]. In Mexico, specialized local stores such as greengroceries and butcheries are frequent purchase places where consumers daily buy fresh local products. In the case of healthy food, place value resulted more associated to the perception of “freshness” of the products sold in certain places than to the enjoyment of the purchasing place.

“If I am going to purchase my pantry, then I go to a local greengrocery store instead of going to H-E-B¹. Because I see the fruit is fresher and looks more natural than the refrigerated products of the supermarket.” (Sergio, 22 years old, low-income).

“I go to the market for several reasons, I think the products I purchase there are healthier and more natural than packed products.” (Abraham, 31 years old, highly concerned about the environment and fair trade).

3.4. Emotional Value

The emotional value is the most elusive element of the FCV framework [31]. The influence of emotions on eating behavior has been recognized in the literature. Empirical studies show negative emotions such as stress and fear increase food consumptions and the preference towards junk or tasty food. Although being less conclusive, positive emotions such as joy seem to have an impact on the consumption of healthy foods [40]. Emotional value emerges from evocative meanings and expected pleased experiences. For example, some participants express a need to be self-indulgent as justification of assigning low emotional value to healthy food products. Meanwhile other participants declare positive emotions when consuming healthy products because they feel they are reducing their health-risk. Looking at the proposal of Puska and Luomala [28] regarding the healthfulness images of food products, organic chocolate may be judged

¹ H-E-B is a USA supermarket well established in major cities at the north part of Mexico.

healthy for a consumer who values the production process while a consumer with a stronger product value, the same product is regarded as unhealthy. But at the end, process and product values contribute to the emotional value.

“I try to take care of my health. At least in the morning, I try to eat a portion of proteins, vegetables, fruit and try to eat as little as possible of meat... Taking care of my nutrition makes me feel good. But sometimes I just forget about my diet [especially] on the weekends [...], and just eat something that makes feel well.” (Abraham, 31 years old, highly concerned about the environment and fair trade).

“I enjoy consuming healthy products. Sometimes, when I feel that I am gaining weight, I do something, exercise or improve my nutrition to be in my ideal weight, it makes me feel good.” (Katia, 19 years old, middle income).

4. Discussion

According with the information collected through the interviews, the concept of healthy food is generally elusive, imprecise and intuitive to consumers who mostly rely on heuristics (e.g. type of product) to estimate how healthy is food. As observed by Lusk [20] and suggested by Puska and Luomala [28] healthiness is not a unidimensional but a multi-dimensional concept that includes the perception of the functionality of the product, the well-being of consumer and the expected outcomes associated to consumption (e.g. prevention of chronic diseases). The qualitative analysis indicates not only tangible “meta-attributes” of products comprising product value, such as nutritional content, price and taste are meaningful to the creation of healthiness images for food. More abstract values such as emotional values are likely to have an impact on food choices via the immersive experience of food consumption. The FCV framework makes possible to accommodate other meanings of healthy food in addition to value delivered by the “meta-attributes” of the product.

Food manufacturers and healthy institutions have basically used the product nutritional information to promote healthy food. For example, products that guarantee a proper intake of protein and fiber, and are low in sugar and fat are endorsed as healthy [41]. Nonetheless, consumers not always judge the healthiness of food based on the product ingredients. For example, Orquin [11] found that fat percentage, carbohydrates, sugar or amount of calories had almost no effect on consumer's judgments of food healthfulness. In agreement with previous studies [12,13,14,17], we find consumers rely on heuristic cues and simplistic and categorical thinking. Cereal, yogurt, and milk are perceived healthier than snacks and canned fruit even though the former group of foods may have a similar amount of fat and sugar than the products of the second group. Then, although consumers declare healthy food products have a low amount of “bad” ingredients and a proper amount of “good” ingredients, at the end they did not verify the nutritional information of the product and intuitively assess the healthiness of food.

An unforeseen finding of this study is that the product category is closely related not only to the product value

but also to the process value. For example, oatmeal, milk, and yogurt were cited by interviewees as healthier because they are perceived as less processed and with no conservatives while canned vegetables or fruits, and packed whole-grain bread are judged as less healthy. Thus, the importance of the naturalness of food products among consumers in developed countries as referred by Román and co-authors [36] is confirmed in the Mexican context. But more than the way food has been grown (e.g. if pesticides or hormones were used) or the product's end properties (e.g. loss of vitamins due to boiling), how food was processed and if unnatural additives have been added comprise the main dimension used by Mexican interviewees to value food healthiness. Products chemically transformed are perceived as less healthy than physically transformed ones. While the addition of natural ingredients to enhance the nutritional value of a product (e.g. vitamins and minerals) is more acceptable than the use of artificial additives. These findings are in total agreement with previous research regarding food naturalness connotation [38]. Negative attitudes toward synthetic chemicals and food technologies seem to be highly associated to process values. Therefore, the substitution or elimination of synthetic additives, as suggested by Román et al. [36], may increase the perceived healthiness of manufactured food products, but the increase in price and reduced life-shelf represents a tradeoff that marketing managers must contemplate.

Our results also show location is part of the overall healthiness evaluation of food to some consumers. Some sites such as traditional markets convey a sense of naturalness and freshness of products [42], thus leading consumers to perceive products sold in these places as healthier than the processed food and fresh products distributed by large retailers. This suggests an association between location and process value and confirms consumers rely on basic heuristics such as the “freshness” of the product to identify healthy options.

Finally, emotional values are another element that contributes to the conceptualization of healthy food. Emotional value “is a function of evocative meanings of food products, production processes, producer's reputation or places of food consumption or points of purchase” ([31], p. 1479). According with our results, emotional value is mainly associated to feelings of wellbeing derived from the consumption of natural products with beneficial ingredients that contribute to maintain a healthy lifestyle and quality of life for oneself and close relatives.

Combining the previous findings with the conclusions of Lusk [20] and Puska and Luomala [28], we integrate the four food consumption values in the following holistic and non-technical definition of healthy food:

“A food product with a good amount of beneficial ingredients (proteins, vitamins, fiber and minerals) and with minimal amounts of bad ingredients (fat and sugar), affordable (price for value), safe and tasteful. The least processed and preserved as possible, and that its consumption provides physical wellbeing and represents a pleasing experience because one feels is taking care of own health.”

This definition may be used as reference to communicate consumers how healthy a food product is. Although the characterization of healthy food integrates

all four consumption values, it is important to recognize that consumers may create simple images of healthy food depending on their individual values. For example, a consumer who mainly values the ingredients of the product will guide his/her purchase decision based on the nutritional information; while other who prioritize the process value will use as basic heuristic the place of purchase to infer the healthiness of a food product. Moreover, there may be niche segments (e.g. athletes) that base their appreciation of healthy food in terms of feelings and specific outcomes such as physical wellbeing, energy and outward appearance.

An ancillary result of the thematic analysis is that the assessment and choice of healthy products seems to depend not only on food consumption values but on other consumer's traits, particularly age, health risk condition and health consciousness level. In agreement with the study of Liu and Yu [43], the appreciation of healthy food seems to be relatively independent of the socioeconomic status of the individual. According with the interviews' content, elder people suffering from chronic diseases independently of their socioeconomic status, and high-educated participants, expressed greater health concerns and affirm they make more informed decisions regarding healthiness of food. While young interviewees who state they try to eat healthy to prevent illness and be slim, declare not to consume healthy food in despite they are aware of the importance of a proper diet on wellness.

These supplementary findings are summarized in the following propositions: 1) young individuals are less concerned about their health and value less healthy food [44,45]; 2) the objective health-risk of suffering chronic diseases increases the interest towards properly identifying and consuming healthy products [46,47], and 3) health consciousness, a concept that implies taking responsibility for own health and be motivated to undertake health-protective behaviors, is a precedent of actual healthy eating [48,49]. These propositions are supported by the following statements:

"I am not a person that is just worried about [his health], I am a person who is taking care of [his health], that is different. I eat the better way is possible, avoid things that I know that could harm myself." (Manuel, 60 years old, high income).

"You start to feel some hassles, discomfort; then you said that there is an age when it is not so easy to digest certain foods that also convey undesired health consequences. Then you really commit with eating well" (Claudia, 48, responsible of sick mother's diet).

"No, I do not care about eating healthy [...] It is not that I am not concerned about it. It is I am really not doing anything about keeping my health, my actions reflect this (Cesar, 21 years old, high income).

5. Conclusions

Consumers have made food choices based on traditional food values such as taste and price, but recently other food values like health, environmental impact and ethical concerns are influencing consumer's decisions [21]. Understanding what consumption values underlie the

selection/purchase decision of healthy food advances the knowledge in food marketing research. Nowadays, consumers assign more importance to food health-related attributes because of their increasing awareness about the influence of their eating habits on their wellbeing. This awareness increases the demand for healthier products and the need to properly inform consumers about the nutritional value of manufactured food.

This work examines food value from the point-of-view of the consumer and focus not only on the utilitarian value delivered by the product attributes but also on the value acquired through the consumption experience. By taking as reference the FVC theoretical framework, this study questions the traditional strategy of food manufacturers and health organizations when promoting healthy food products. For example, the positive emotions food can arouse represent a hedonic value that departs from the product value resulting from its nutritional content. Thus, the results of this research uncover the necessity to recognize the multi-dimensionality of food value to better inform consumers about the healthiness of manufactured food. For example, process value, with the exception of organic food, is a value dimension scarcely used by companies to heighten the value of their food products. Moreover, the sole promotion of product value presupposes consumer food choices are mainly based on a cognitive decision process, thus ignoring the affective dimension that contributes to the development of positive attitudes toward healthy food [50]. The choice of healthy food may be more or less conscious depending on the individual characteristics (e.g. degree of health consciousness), values and health situation (personal and relative's health status).

5.1. Theoretical Implications

The main contribution of this study is the outlining of an all-encompassing image of healthy food based on consumer's values. While previous research has used motivational and general values theories to explain food choices, this study uncovers food consumption values embedded in the tangible attributes of manufactured food, but also in intangible values such as the emotions experienced through its consumption. In addition to empirically demonstrate the convenience of applying the theoretical FCV framework proposed by Dagevos and van Ophem [31] to understand how consumers picture healthy food, we integrate additional aspects from previous research, such as physical well-being, to suggest a holistic and nontechnical definition of healthy food. Although the conventional way of viewing healthfulness as a continuum with two endpoints has its merits [28], a multidimensional conception of food healthfulness based on more consumers' values expands the comprehension about how and why consumers perceive healthy food products as they do.

The identification of the assertive beliefs of consumers' conceptions enhances the scientific-base definitions of healthy food formulated by nutritionists and governmental agencies such as the Food & Drug Administration (FDA), thus suggesting what needs, values and interests, should be satisfied by the food industry.

5.2. Managerial Implications

The broad definition of healthy food proposed in this work provides a guideline to marketing managers about the importance to inform consumers how the food industry is responding to the healthy lifestyle trend. According with a recent report of Deloitte [21], the drivers of consumer value have changed. Nowadays, consumers take a more holistic perspective when evaluating a food product that considers the examination of its ingredients but also qualitative information that includes the place of sale, the production process and the “health and wellness” emotions resulting from its consumption. Companies need to decode what values define consumer preferences and reframe their communication and promotion strategies by bearing in mind all food consumption values. In the case of retailers, a direct contact (reconnection) may help to share information about the origin of the product and the way and time it was preserved.

To begin with, the product value associated to healthy food entails and internal interchange of product attributes, specifically price and taste by nutritious ingredients. This implicit tradeoff needs to be managed when designing and promoting healthy food products. For example, in addition to improving the flavor of nutritious food, delicious images and claims can help build attraction to try healthy products while nutritional information may be flag at a secondary level. This strategy may offset the a priori belief that nutritious food is unpleasant.

Secondly, this study reveals consumers have a negative connotation towards processed food (e.g. processed meat and dairy). This undesirable association has been neglected by the food industry and may be attended by providing information about how food technologies preserve the basic characteristics of food and the safety of food additives. Basic information could be given in labelling and massive communication while more detailed information about the manufacturing and distribution process of food products could be accessed in the producer’s Web site, social media, mobile applications and databases of Universal Product Codes (UPC). The guidelines of the Food Agricultural Organization (FAO) on how to incorporate this information on processed foods is a first attempt to attend this issue [51]. Finally, appealing to the emotions of wellbeing and healthy lifestyle related to abstract emotional value, could be as effective as health claims in promoting healthy manufactured food.

5.3. Study Limitations and Future Research Directions

This research is not without limitations. The main limitation is the qualitative methodology employed that refrains the generalization of results. Future investigations could try to corroborate and validate our findings by using a representative sample of consumers. New dimensions related to any of the four FCV may emerge.

A quantitative study contrasting the healthy food consumer values of individuals with different profiles is another extension of this study. Our ancillary results suggest individuals in good health assign different

connotations to healthy food in comparison with individuals suffering from chronic diseases. Health consciousness, age and education are other variables that may be used to contrast different definitions of healthy food. These comparisons are useful to identify what variables, in addition to food values, determine or moderate food preferences and choices.

Another interesting extension is to use experimentation to evaluate if different labels informing about the origin and processing of food increase the healthiness perception of food. This will be relevant to establish the degree of importance of process food value. Finally, exploring how claims appealing to the emotional healthy food value contribute to reinforce the self-identity of consumers in the healthy segment is another interesting extension of this work.

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