

From Nutrients to Nurturance: A Conceptual Introduction to Food Well-Being

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The authors propose a restructuring of the “food as health” paradigm to “food as well-being.” This requires shifting from an emphasis on restraint and restrictions to a more positive, holistic understanding of the role of food in overall well-being. The authors propose the concept of food well-being (FWB), defined as a positive psychological, physical, emotional, and social relationship with food at both individual and societal levels. The authors define and explain the five primary domains of FWB: food socialization, food literacy, food marketing, food availability, and food policy. The FWB framework employs a richer definition of food and highlights the need for research that bridges other disciplines and paradigms outside and within marketing. Further research should develop and refine the understanding of each domain with the ultimate goal of moving the field toward this embodiment of food as well-being.

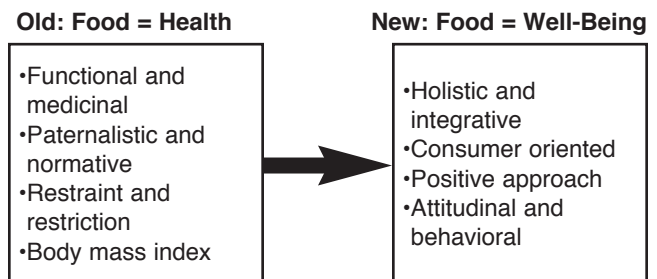
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No one sits down to eat a plate of nutrients. Rather, when people sit down for a meal, they are seeking physical in addition to emotional and psychological nourishment—comfort, pleasure, love, and community.

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However, the prevailing paradigm driving research and recommendations for fighting this obesogenic society is that “food = nutrients = health,” and dieting for weight loss is a major industry. People have become increasingly obese while obsessing over fat, calories, and body mass index. We argue that the existing paternalistic, normative model of the relationship of food to health is partially responsible for creating a society of paradoxical eaters: those who consume entire boxes of fat-free cookies while trying to cut calories. We propose a radical restructuring of the paradigm from “food as health” to “food as well-being.” As Figure 1 shows, this requires shifting from an emphasis on restraint and restrictions toward a more positive, holistic understanding of the role of food in a person’s overall well-being.

Figure 1. The Paradigm Shift to Food Well-Being



To forge this paradigm shift, we put forth the concept of “food well-being” (FWB), defined as a positive psychological, physical, emotional, and social relationship with food at both the individual and societal levels. As such, FWB is necessarily influenced by the cultural, environmental, and legal factors that govern people’s food attitudes and behaviors. Figure 2 depicts these relationships graphically with the FWB pinwheel. Note that the diagram captures three concepts critical to FWB: (1) FWB is a central core that both is created by and binds together the outer constructs; (2) each construct represents the range from societal factors to individual level factors; and (3) when “closed,” the figure implies a unity of strength, but when “opened,” it resembles a pinwheel, which represents a fluid, nonstatic interchange of ideas and influencers. The pinwheel can also be rotated to move one area in focus while retaining all other areas as context, so that the integration across areas is not lost.

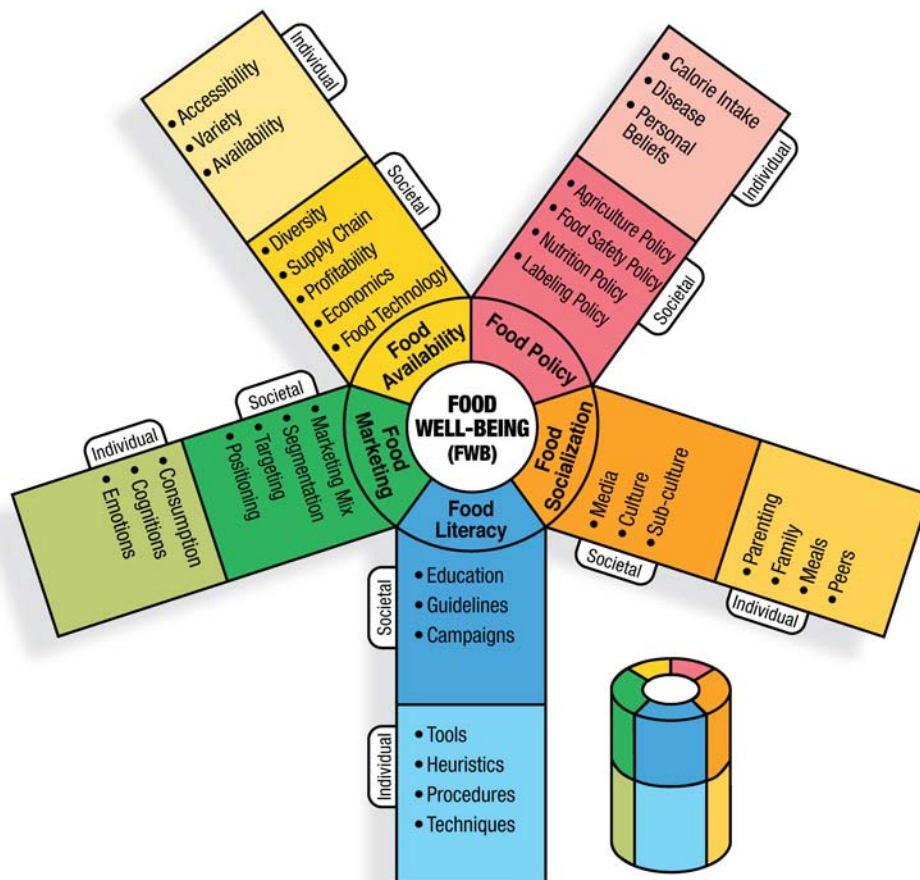
An FWB framework employs a richer definition of food, one that has stronger connections to other academic fields, such as anthropology, and to current societal trends, such as the Slow Food Movement and the rise in popularity of culinary arts. For example, anthropologists have long studied cultural attitudes toward food not simply as a combination of nutrients but as community, pleasure, comfort, and kinship. Therefore, an FWB approach highlights the need for

research that bridges other disciplines and paradigms outside and within marketing.

Furthermore, although our article originates primarily from a North American perspective, the FWB framework is capable of generating research and insight into global issues, such as the “twin” sides of food: global hunger and obesity. Even within the United States, much public policy has focused on the paradoxical coexistence of the lack of food (e.g., government programs such as Women, Infants, and Children; food stamps) and the overabundance of food (i.e., obesity-related issues). Thus, although we often use obesity as an example in this article, an FWB agenda promotes research into all health and social challenges associated with the types and amounts of foods and beverages people consume, in addition to the production and consumption contexts of food. These include societal issues, such as food insecurity and food subsidies, and food-related diseases, such as diabetes, heart disease, anorexia and bulimia, and certain cancers linked to foods.

As Figure 2 shows, we identify five primary domains that represent the central FWB core: food socialization, food literacy, food marketing, food availability, and food policy. We define and explain each area in the sections that follow. It is our hope that researchers will develop and refine understanding of each of these domains with the ultimate

Figure 2. The FWB Pinwheel



goal of moving the field toward this more integrated, positive, and successful embodiment of food as well-being.

Food Socialization

Food consumption has a significant cultural component. Food choices are influenced by culture and subcultures. In addition, food is often used to reflect cultural values, as is implied by meal-based rituals passed from members of one generation to the next. Meal traditions often serve as cultural markers that help define social groups and individual identities. How do children (indeed, all consumers) learn about food preparation and food-based rituals and traditions? We contend that, like consumption in general, food and its cultural linkages are learned through a socialization process (Mochis 1985). Socialization begins during childhood, and in general, the family is the most important means of socialization, providing information, pressure to conform, and support (Moore, Wilkie, and Lutz 2002). We draw on Ward's (1974) seminal research on young consumers, in which he coined the term "consumer socialization" to describe how children learn about the marketplace. Thus, we define "food socialization" as the processes consumers use to learn about food, its role, and FWB in a person's cultural realm.

Food socialization may occur through explicit (e.g., purposeful training by socialization agents, such as parents restricting consumption of particular foods) or implicit (e.g., observing and mimicking the behaviors of others; Mochis 1985) means. The methods used might be indicative of parental style (Carlson and Grossbart 1988). Wardle (1995) argues that parents often attempt to impart food-related knowledge to offspring using purposeful and direct methods. However, such efforts might not always yield the desired results. For example, Brown and Ogden (2004) indicate that children reared by parents who exert high levels of control over their offspring reported higher levels of unhealthy snacking relative to children of parents who exert less control. Similarly, Rhee et al. (2006) suggest that children residing in a food-restrictive environment have an increased risk of being overweight, especially when the restrictiveness is not coupled with displays of warmth. In addition, evidence suggests that an indulgent parenting style might contribute to undesirable long-term effects on obesity in children (Olvera and Power 2010). Thus, it may be important to consider the emotional tone, in addition to the restrictiveness versus permissiveness dimensions of parental style, when examining children's responses to parental socialization efforts regarding food.

However, parents also use more implicit methods to socialize their children about food. Evidence supports the effectiveness of such socialization efforts. For example, Klesges et al. (1991) find that parents' mere presence led children to make healthier choices for lunch. This finding underscores the importance of the family meal to the food socialization process. Not surprisingly, researchers have found positive relationships between frequency of family meals and children eating healthier foods (Videon and Manning 2003). Not only do family meals afford parents opportunities to demonstrate desired eating customs, habits, and practices, they also provide benefits that extend beyond

FWB. Children who regularly participate in family meals have greater academic achievement and are less likely to use marijuana, experience depression, and contemplate suicide than those who do not (Eisenberg et al. 2004). Thus, President Obama proclaimed September 27 "Family Meal Day" (<http://casafamilyday.org/familyday/>) in recognition of the importance of institutionalizing the family meal.

Food socialization also occurs at a broader level. Ethnicity, social classes, and cultures also serve as sources of information, support, and social pressure (Grier and Moore 2012). Furthermore, it is well established that media and marketing serve as socialization agents (e.g., Harris et al. 2009). For example, marketing research suggests that fast-food marketing may influence parents' normative beliefs and how frequently their children ate fast food (Grier et al. 2007).

Thus, FWB may be imparted to children (and indeed, all consumers) through individual and societal socialization processes. Table 1, in which we suggest future research questions, indicates that understanding the interaction between these processes can provide opportunities for better FWB. Moreover, food interactions can provide useful opportunities to socialize family members about other aspects of life as well.

Food Literacy

Knowledge about food and nutrition seems to improve the quality of food consumption choices: People make more healthful food choices when they possess greater nutrition knowledge (Worsley 2002). However, simply possessing nutrition knowledge is not sufficient to nourish a person's pursuit of food goals and well-being (Scott et al. 2008; Stevenson et al. 2007). We build the concept of food literacy from frameworks developed for health literacy (e.g., Ratzan 2001). Consistent with recent work on health literacy (Nutbeam 2008; Rubinelli, Schulz, and Nakamoto 2009), we define food literacy as more than knowledge; it also involves the motivation to apply nutrition information to food choices. Whereas food knowledge is the possession of food-related information, food literacy entails both understanding nutrition information and acting on that knowledge in ways consistent with promoting nutrition goals and FWB.

Food literacy has three main components: conceptual or declarative knowledge, procedural knowledge, and the ability, opportunity, and motivation to apply or use that knowledge. The conceptual or declarative component of food literacy involves reading and acquiring knowledge about food, food sources, nutrition facts, and other knowledge acquisition and apprehension activities involving food and nutrition. In contrast, procedural knowledge involves applying such knowledge to food decision making, including food shopping and preparation skills. Procedural knowledge requires the development of food scripts—food-related sequences of events, actions, or routines that occur in a particular context (e.g., how to shop for, prepare, and sauté fresh broccoli). These food and nutrition scripts and procedural knowledge support a person's food goals and FWB. However, possessing both conceptual and procedural knowledge is insufficient to improve FWB if a person is not

motivated to apply that knowledge. For example, when confidence was added to their emotional knowledge, obese consumers made less impulsive and healthier food decisions and were less affected by a vivid presentation of food choices (Kidwell, Hardesty, and Childers 2008). Thus, the development of food literacy involves the ability, opportunity, and motivation to identify, understand, interpret, communicate, and use information about food in various contexts.

The process of acquiring food literacy and achieving FWB evolves over the course of a person's life. From a societal perspective, promoting food literacy may involve educating people about how to incorporate food into their daily routines in ways that support their food goals and their local, national, and international communities to preserve societal health (<http://www.foodliteracyproject.org>). The cost of food illiteracy—a deficiency in food knowledge and inadequate ability, motivation, and opportunity to acquire and apply that knowledge—has consequences for the individual and for society in terms of an absence of FWB, which could result in detrimental individual and societal health outcomes. Developing food literacy has the potential to enable more healthful everyday food consumption choices and to make a positive impact on individual and societal FWB.

Food Marketing

Marketing practitioners use the traditional marketing mix (the four Ps: product, promotion, place, and price) to influence consumers' attitudes and behaviors toward foods. Therefore, food marketing plays an important role in FWB. In this section, we consider the role of three of these traditional marketing elements—product, promotion, and price (we discuss place in the section titled “Food Availability”)—in changing attitudes and behavior relevant to FWB.

Numerous studies have demonstrated how marketing cues influence consumption at an individual level and that most of these consumption decisions are made with little cognitive effort or even awareness. For example, unbeknownst to consumers, verbal product descriptions can easily influence taste perceptions and food choice (Wansink 2007). Consumers also unknowingly use visual indicators, such as the package size and shape of containers, to generate consumption norms (Hine 1995). Large containers and portions implicitly suggest larger consumption norms, which ultimately lead to overeating (Wansink 2007). In addition to package size, the actual graphics on the package can lead to higher or lower levels of consumption. Madzharov and Block (2010) demonstrate that people unknowingly anchor their consumption on the number of product units illustrated on the package (e.g., number of cookies): The more units displayed, the more people consume. Underconsumption is also stimulated by marketing activities such as the influence of advertising on body image satisfaction among both men and women and eating disorders such as anorexia and bulimia.

The concept of FWB is implicit in most research on the influence of marketing activities on individual consumption in that researchers assume that the pleasure derived from food is an important motivation. Some research has sug-

gested that marketing activities influence not only the quantities of food consumed but also the cognitions and emotions associated with food. For example, Rozin et al. (1999) analyze the psychology of food in the context of daily life by investigating the interplay of negative and positive aspects of food in a cross-cultural study. They find substantial differences in the extent to which food functions as a stressor versus a pleasure, and these differences influence perceived health status. Ironically, people from cultures that associate food most with health and least with pleasure, who do the most to alter their diets for health purposes, are also the least likely to classify themselves as healthy eaters. Such studies suggest that understanding and embracing people's pleasure from food is important to a FWB perspective.

At the societal level, marketing actions, such as the products marketed, information provided, and prices charged, can influence consumption behavior. For example, food advertising potentially increases consumption, and increases (decreases) in food price reduce (increase) consumption. Unfortunately, promotional communications are heavily weighted toward energy-dense, nutrient-poor foods rather than more nutritious foods (e.g., Story and Faulkner 1990), and although real food prices have generally decreased over the past 60 years, the price of fruits and vegetables has increased (Christian and Rashad 2009). Furthermore, research worldwide has shown that food marketing to youth contradicts a healthy diet, suggesting it may begin to reduce or counteract FWB at an early age (see Grier and Moore 2012).

It is noteworthy that although marketers frequently emphasize taste or nutrition benefits in food advertising (Kim, Cheong, and Zheng 2008), they also emphasize convenience, status, relationship building, and food quality (e.g., Cheong, Kim, and Zheng 2010). That is, marketers use a wide variety of constructs relevant to FWB (in at least this element of their marketing strategy). In contrast, a literature search of food marketing research over the past 20 years reveals that academic research on marketers' actions and their effects on consumers is considerably more limited in scope, dominated by a focus on health. This bias on the part of academics is perhaps not surprising given increasing medical research connecting food to health, new legislation worldwide regarding food standards, and increased interest in nutrition and health on the part of both consumers and marketers (Kim, Cheong, and Zheng 2008). A health focus is further nurtured by the wider availability of energy-dense foods around the globe and the associated effects on obesity, in both affluent countries and developing countries (Witkowski 2007).

The four Ps of marketing can contribute not only to food-related problems but also to solutions (Goldberg and Gunasti 2007; Seiders and Petty 2007). Behavioral studies imply that consumption patterns can be changed without exhausting consumers with explicit warnings about calorie content. Marketing practitioners, whether they are in food companies or nonprofit agencies promoting culinary tourism or diet behavior change, can influence consumers and are influenced by consumers, as is evident in their responses to consumer trends in food consumption. For example, witness the influence of the Slow Food Movement, which resists the homogenization and globalization

of food and emphasizes social consciousness. Trends have also prompted companies such as Starbucks, McDonalds, and Virgin Airlines to use “Fair Trade Certified” sources of coffee in many of their operations. In summary, although existing food marketing research at the individual and societal levels has relevance for FWB, a great deal more can be done to enrich understanding of current food marketing practices and their impact on food consumption by increasing research on dimensions of FWB beyond the health dimension.

Food Availability

Food availability involves how the distribution and availability of food influence consumption behaviors at home, at work, in restaurants, in grocery stores, and in the wider community, including foods produced globally and prepared by larger firms and those produced and accessed locally through community gardens, farmers’ markets, and homegrown produce. Consumers must decide what to eat away from home and what foods to bring home from among the perceived available options. Societal factors influence these decisions for consumers who face constrained food options as they pursue FWB.

At the individual level, consumers are challenged to decide which sources to patronize among restaurants, grocery stores, co-ops, and farmers’ markets, which vary in price and convenience; and which foods to select among available choices that vary in degree of processing, taste, and healthfulness. Adults participating in both farmers’ markets and community gardens exhibit higher levels of fruit and vegetable intake (McCormack et al. 2010). In a gardening program, children also experienced an increase in preference for and consumption of vegetables; the children introduced the foods into the home during the program, but the home availability of these foods fell to pre-program levels after the program ended (Heim, Stang, and Ireland 2009). As we highlighted in the “Food Marketing” section, developing a FWB perspective can lead to a positive shift in how available options are perceived and consumed. For example, consumers may misforecast future consumption at the point of purchase (Hoch and Loewenstein 1991) and purchase “healthy options,” such as low-fat or 100-calorie snacks, without correctly anticipating how the item will later be consumed (Scott et al. 2008). Perceptions of scarcity or lack of food availability can also lead to overconsumption, hoarding, and other consumption patterns with potential negative effects (Kendall, Olson, and Frongillo 1996). A gap in understanding exists between individual preferences and behaviors as they relate to healthy food availability. Approaching this gap from a self-regulation perspective may provide insights into how to increase and sustain household availability of healthful foods such as fruits and vegetables, because this outcome is perceived as having immediate costs (e.g., forgo convenience foods and exert diligence in food choices now) and delayed rewards (e.g., future improved health).

A cornerstone of FWB is making available healthy options and creating contexts so that consumers can move beyond highly processed convenience foods. For example, eating restaurant food is inversely related to eating fruits

and vegetables (French et al. 2003). In restaurants, the availability of relatively healthy food options can cause consumers to choose less healthy options through vicarious goal fulfillment, in which simply considering a healthy option, without necessarily consuming it, fulfills a consumer’s health goal and gives the person license to consume a less healthy option (Wilcox et al. 2009). Consumers may unknowingly consume more calories from menus that are perceived to be relatively healthy, and consumption rates can increase because of distractions in the restaurant environment (Wansink 2007).

Societal factors such as “built environments” determine accessibility to healthy versus unhealthy food for entire neighborhoods. A built environment is the infrastructure that provides the setting for human living, such as schools, parks, grocery stores, convenience stores, and restaurants. Marketers can reduce the number of “food deserts,” geographical regions identified as being most isolated from healthy food access (Guy, Clarke, and Eyre 2004), which are typically found in low-income and racial/ethnic neighborhoods most at risk for obesity. These regions have the highest level of access to fast food and lowest level of access to grocery stores (Grier and Kumanyika 2008). In addition, marketers can make policy changes in schools by limiting access to vending machines (French et al. 2003) and nearby fast food (Davis and Carpenter 2009), which have been associated with obesity in adolescents. Last, marketers can focus on providing community opportunities to adolescents and adults, so that nearby fast-food outlets are not the primary places for socializing and consuming. Government, corporate, and nonprofit organizations are pursuing efforts in these areas, and continued progress is warranted.

The economic environment also shapes the relationship of marketing channels to FWB. Profitability in the supply chain is at odds with consumers’ desire for low prices. To reduce food prices to meet these needs, suppliers often yield to a monoculture of food production, decreasing diversity of healthy produce like garden vegetables tailored to local tastes, in favor of global outputs like corn syrup and trans fat, which are less expensive to package, transport, and warehouse (Lichtfouse et al. 2009). The result is food that is cheaper but less healthy. In contrast, we propose that economic well-being and FWB can be mutually sustainable. For example, it is encouraging that large distributors like Wal-Mart have learned to more efficiently and globally manage the supply chain of lower-priced healthy and organic foods (Thompson and Coskuner-Balli 2007). Moreover, smaller merchants have the advantage of local ties to more efficiently market fresh fruits and vegetables in places like community groceries and farmers’ markets. Similar to subsistence markets in developing economies, local merchants of fresh foods more precisely manage relationships among vendors, customers, and families than larger channel systems, thereby knowing better how to precisely attenuate tensions between consumer income and channel profit (Viswanathan, Rosa, and Ruth 2010). Also similar to those in subsistence markets, consumers increasingly have the option for agricultural cooperatives in which their own efforts are rewarded with reduced-price produce, though

Table 1. Some Illustrative Future Research Questions on FWB

Food socialization	<ul style="list-style-type: none"> •How do implicit and explicit parenting styles and food socialization manifest in situations in which there is food insecurity or hunger? •How do culture, ethnicity, and income influence the extent to which implicit and explicit food socialization is practiced, and how do they contribute to FWB? •How does hunger influence the meaning and practice of family meals and cooking at home?
Food literacy	<ul style="list-style-type: none"> •What is the impact of lower versus higher food literacy on FWB? •What are bilingual, bicultural, and cross-cultural differences in food literacy, and how do they relate to FWB? •How can we use people's natural processing tendencies to influence food literacy and produce healthier consumption patterns (e.g., changes in product descriptions, visual depictions, diminished portion sizes)?
Food availability	<ul style="list-style-type: none"> •How can marketers assist those with time and resource limitations to develop healthy approaches to food? •How can marketers use technological innovations to heighten awareness of food consumption and content? •How do disparities in available resources (i.e., food deprivation vs. food abundance) influence perceptions of available foods and subsequent consumption patterns?
Food marketing	<ul style="list-style-type: none"> •What are the similarities and differences in consumers' daily interaction with food between cultures in which food is considered a "pleasure" and those in which food is seen as a "stressor"? •What do marketing communications and other tactics convey with regard to dimensions of FWB such as cultural values, social relationships, and food pleasure? •Are changes in the price of convenient energy-dense foods associated with changes in purchase of energy-dense foods for different population segments?
Food policy	<ul style="list-style-type: none"> •What are the effects on food choices and adult and child FWB of policies that decrease access to energy-dense foods in work, school, and day care settings and public venues? •What is the impact of nutrient labeling policies (e.g., on packaging, in restaurants) on FWB? •What would constitute a valid and reliable environmental footprint measure for food products?

not without trade-offs on the convenience they can get from places like fast-food restaurants.

Marketers can encourage FWB by better understanding the interplay of responses to food availability at the individual and societal levels. We must identify barriers to healthy attitudes and consumption patterns and provide tools to help overcome societal hurdles such as food access.

Food Policy

Favorable food policies can foster FWB. Food policy, broadly defined, comprises several types of policies related to food systems. Food production and pricing systems are governed by agricultural policy (World Health Organization 2003). Food safety policy provides rules about how food should be produced, stored, and transported to ensure it reaches the market in a form suitable for human consumption (Food and Agricultural Organization and World Health Organization 2003). Nutrition policy provides guidance about the types and amounts of nutrients and foods needed for a healthful diet (World Health Organization 2003). National agencies in specific countries (e.g., the U.S. Department of Agriculture in the United States) also play a critical role. Food and nutrition labeling policies address consumer needs for information about how a specified amount of a food contributes to a healthful diet (Codex Alimentarius Commission 2009). We discuss each of these policy categories in the following paragraphs.

Agricultural policies influence the viability and profitability of large and small farms and what quantities of which crops they produce (e.g., policies governing production methods, land use, commodity prices, subsidies). They influence the cost of commodities (e.g., fruits, vegetables) and the ingredients that are used in processed foods (e.g., sugar, fat). This directly and indirectly influences the avail-

ability and affordability of more or less healthful foods (Jackson et al. 2009; Muller et al. 2009). Current methods of food production and agricultural waste management pose major threats to the environment in terms of both resource utilization and contamination, leading to calls for more locally produced food and more ecologically sustainable approaches (Lang and Heasman 2004; Muller et al. 2009). Local food production offers increased access to whole, minimally processed foods and may also have psychosocial, cultural, economic, and physical benefits.

In food safety policy, local, national, and international laws, regulations, and infrastructure aim to achieve bacteriological safety and the absence of harmful levels of chemicals in food, whether introduced intentionally (e.g., preservatives; food additives, including nutrients used for enrichment or fortification) or unintentionally (e.g., toxicants, carcinogens). Manufacturers disclose information on food labels that enables consumers to identify ingredients (e.g., additives, allergens), dates that indicate freshness, and other important information such as whether the product is ready to eat or requires cooking.

Labeling of calories and other nutrients and dietary constituents on packaged foods helps consumers choose a diet that is nutritionally adequate, energy appropriate, and protective against chronic diseases. Consumer FWB can be enhanced by policies that improve legibility, terminology, and formats of nutrition labels and, therefore, consumer use of these labels, which is currently far from optimal (Grunert and Wills 2007; Mackey and Metz 2009). Labeling requirements may also have a favorable influence on food formulations, such as the creation of lower-fat products and the removal of trans fats (Moorman 1998). Menu labeling for prepared foods offered in a range of venues, including grocery stores, school cafeterias, and restaurants, may enhance

consumers' likelihood of choosing lower-calorie options (Kuo et al. 2010). Labeling that identifies other aspects of foods that relate to religious and other ethnocultural or ideological preferences or concerns can further enhance consumer well-being. Examples include statements relating to conditions under which foods are produced (e.g., country of origin, organic, grain-fed, kosher, halal), the environmental impact of food production and transportation (carbon miles/footprints), animal welfare (e.g., eggs from free-range chickens, dolphin-friendly tuna), and production techniques (e.g., genetic modification, nanotechnology).

Agricultural, food safety, and food labeling policies affect and are affected by the aforementioned FWB concerns related to food socialization, literacy, availability, and marketing. For example, the rapid and large increases in the proportion of overweight and obese children worldwide have resulted in calls for more stringent public policy regarding children's exposure to the marketing of energy-dense foods and sugar-sweetened beverages (Davis and Carpenter 2009; French et al. 2003; Harris et al. 2009). This ultimately has implications for agricultural and trade policies that govern the mix and quantities of foods produced and where and how they are marketed. Public health professionals and advocates call for policies that lead to increased production and promotion of less energy-dense foods, such as fruits and vegetables, to create health-supportive food choice environments so that such products will predominate and become the default options; these policies also often address environmental concerns (Muller et al. 2009).

In summary, food policy changes can affect FWB at an individual level by allowing consumers to make informed decisions and giving them peace of mind in their choices (Cowburn and Stockley 2005). At the societal level, FWB can be enhanced through an array of policies at international, national, state, and local levels to more effectively align food production and distribution with dietary recommendations and principles of sound environmental stewardship (Muller et al. 2009; World Health Organization 2003).

Conclusion

The preceding discussion is by no means comprehensive. Our aim is to introduce the concept of FWB; identify, define, and explain key concepts to demonstrate its conceptual value; and provoke additional thought and research on FWB. The framework should stimulate thinking about ways consumers' FWB can be transformed—through their own choices, by marketers' practices, and with policy initiatives. A central concern is what food means to consumers and how that relationship can be influenced to contribute to well-being? Table 1 highlights some of the research questions that emerge from the development of the FWB concept. Some of the most interesting and fruitful research questions may arise at the intersections of various tabs in the pinwheel (see Figure 2). For example, what is the relationship between food options at school (availability) and eating behaviors at home (socialization)? In addition, it would be helpful to develop scales to measure FWB in general and each component individually. For example, a reliable and accepted measure of food literacy would enable

researchers to compare across consumer segments and analyze changes over time.

Studies of FWB would also benefit from cross-disciplinary research utilizing diverse and multiple methods, including evidence from surveys, dietary intake studies, diaries, interviews, and observational studies. For example, investigations of the meaning of food from an interpretive perspective would be nicely complemented by experimental research on how food meaning affects food choice. Furthermore, researchers must increasingly connect individual and societal factors when studying the domains inherent in FWB. For example, when vending machines and fast food are removed from schools, how does this affect individual choices at home and in other contexts? How does lack of food availability for certain segments influence perceptions of scarcity and consumers' relationships with food? What individual processes lead to consumption changes as a result of increases in food literacy or changes in media representations of food? Combining these individual and societal perspectives can highlight the benefits of a systems perspective and help marketers more comprehensively increase FWB.

Undoubtedly, scholars will find ways to develop, refine, and extend both the constructs and the model. It is our hope that this introduction provides significant "food for thought" regarding the need for a paradigm shift to an integrated, positive approach to understanding food as a key contributor to individual and societal well-being.

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