
**Is Food Marketing
Making Us Fat?
A Multi-Disciplinary
Review**

Is Food Marketing Making Us Fat? A Multi-Disciplinary Review

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Is Food Marketing Making Us Fat? A Multi-Disciplinary Review

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Abstract

Whereas everyone recognizes that increasing obesity rates worldwide are driven by a complex set of interrelated factors, the marketing actions of the food industry are often singled out as one of the main culprits. But how exactly is food marketing making us fat? To answer this question, we review evidence provided by studies in marketing, nutrition, psychology, economics, food science, and related disciplines that have examined the links between food marketing and energy intake but have remained largely disconnected. Starting with the most obtrusive and most studied marketing actions, we explain the multiple ways in which food prices (including temporary price promotions) and marketing communication (including branding and nutrition and health claims) influence consumption volume. We then study the effects of less conspicuous marketing actions which can have powerful effects on eating behavior without being noticed by consumers. We examine the effects on consumption of changes in the food's quality (including its composition, nutritional and sensory properties) and quantity

(including the range, size and shape of the packages and portions in which it is available). Finally, we review the effects of the eating environment, including the availability, salience and convenience of food, the type, size and shape of serving containers, and the atmospherics of the purchase and consumption environment. We conclude with research and policy implications.

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1

Introduction

Obesity has been on the rise for the past 30 years, and not just in rich countries. At the last count, 68% of US adults were classified as overweight and 34% as obese, more than twice as many as 30 years ago (Flegal et al., 2010), and 17% of US children are now obese, three times as many as 30 years ago (Ogden et al., 2010). Obesity rates are climbing even faster in emerging countries, which have undergone an extremely fast nutrition transition and have seen over-nourishment replace under-nourishment as a leading public health concern earlier than anticipated (Popkin, 2002). Although obesity rates are finally starting to stabilize in the United States, they are still at an extremely high level compared to the target obesity rates and contribute significantly to mortality. For example, being overweight (BMI between 25 and 29.9 kg/m²) increases mortality rates by 13%, and being obese (BMI between 30 and 34.9) increases mortality rates by 44% among healthy people who have never smoked (Berrington de Gonzalez et al., 2010). Obesity also has major cost implications. The costs attributable to obesity among full-time

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employees alone amount to \$73.1 billion (Finkelstein et al., 2010) and rising obesity rates are predicted to add an additional \$200 billion a year in health care costs by 2018 (Thorpe, 2009).

Although everyone agrees that the current obesity epidemic has many roots, the marketing actions of the food producers, stores, and restaurants, are often regarded as one of the key reasons why we, as a population, are getting fat (Brownell and Horgen, 2003; Dubé et al., 2010; Kessler, 2009; Nestle, 2002; Pollan, 2006; Popkin, 2009). This theory is particularly plausible given that food and beverages (hereafter referred to as “food”) are the first marketed and ‘branded’ products in history, perhaps as early as the fourth millennium BC (Wengrow, 2008). Food remains one of the most heavily marketed products, especially for children (Batada et al., 2008; Desrochers and Holt, 2007; Harris et al., 2010; Powell et al., 2007a; Story et al., 2002). It is also among the most astutely marketed products, as demonstrated by the fact that numerous marketing innovations were pioneered by food marketers (Bartels, 1951; Wilkie and Moore, 2003). Thus it is important to review the evidence of the relationship between food marketing and obesity and, more importantly, to examine how exactly food marketing may have made us fat.

The objective of this paper is to review the literature in marketing, nutrition, psychology, economics and related disciplines which investigates the link between marketing activity, food intake and obesity, with a particular emphasis on the effects of marketing on overeating (increased energy intake). This allows us to bring together streams of research which have so far been largely disconnected. For example, there exists a large body of literature on the effects of television advertising on food preferences and behaviors published in nutrition and health economics journals which is not cited by marketing scholars. Conversely, only a small fraction of the consumer research literature is cited by nutrition researchers, and the existing review of environmental factors (Wansink, 2004) is rapidly becoming outdated given how much new research has been published since.

1.1 A Framework of How Food Marketing Influences Overeating

To limit the scope of the review, we focus on the direct effects of marketing activity¹ under the direct control of food marketers, i.e., the 4 P's of product, price, promotion, and place (distribution) on consumption volume (*how much* we eat) because of its direct impact on energy intake. We also review studies on food choice (*what* we eat), to the extent that it obviously impacts energy intake (e.g., people choosing to eat chocolate cake or fruit for a snack) but exclude studies of the effects of marketing on energy expenditure (e.g., physical activity).

As shown in Figure 1.1, food marketers can influence food consumption volume through four basic mechanisms with varying levels of conspicuousness, and through deliberate or automatic psychological processes. First, the short- and long-term price of food and its format (e.g., a straight price cut or quantity discount) can influence how much people consume. This factor is conspicuous and the effect on consumers is likely to be the result of deliberate decisions. Second, food marketing can influence consumer expectations of the sensory and non-sensory benefits of the food through advertising and promotions, as well as by

¹ We use the American Marketing Association's new definition of marketing as "the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large". We therefore include activities such as food formulation, that are not under the sole responsibility of marketing executives but that rely on inputs from marketing. This still leaves out many influencers of food intake that are not directly controlled by marketers, at least in the short run. These include leisure and workplace physical activity (Church et al., 2011), personal, cultural, and social norms about food, eating, and dieting (Fischler et al., 2008; Herman and Polivy, 2005; Stroebe et al., 2008), the timing of meals (de Castro et al., 1997), incidental emotions (Winterich and Haws, 2011), or body image perceptions and preferences (Campbell and Mohr, 2011; Smeesters et al., 2010). We also exclude the effects of corporate activities that are only tangentially related to marketing such as lobbying (Mello et al., 2006), sponsoring of research and advocacy groups (Wymer, 2010), and industry self-regulation (Ludwig and Nestle, 2008; Sharma et al., 2010). We do not review the literature on pro-social marketing which examines how marketing can promote more effective public health programs or educate consumers about nutrition (see Goldberg and Gunasti, 2007; Seiders and Petty, 2004). Another important caveat is that, although we identify ways to curb energy intake, it is important to note that energy intake does not equal weight gain, let alone obesity and that the relationship between food intake and obesity is complex (Bellisle, 2005). For example, increased food intake is a cause but also a consequence of obesity because of the higher energy requirements of heavier bodies.

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Fig. 1.1 How food marketing influences overeating.

branding the food itself, and by making nutrition and health claims. This second route is the one most closely associated with food marketing and the most closely scrutinized by non-marketing researchers. As Figure 1.1 shows, marketing communication is almost as conspicuous as price changes but not all of its effects on consumption are deliberate, as consumers are not always aware of them. Food marketers can also influence both the quality (composition, sensory properties, calorie density, etc.) and quantity (package or portion size) of the food itself. Finally, food marketers influence the eating environment: the convenience and salience of the purchase, preparation and consumption, the size and shape of serving containers, and the atmospherics of the purchase and consumption environments. The latter are less frequently studied and their effects are the most likely to be driven by automatic, visceral effects outside the awareness and volitional control of consumers.

Although the factors outlined in Figure 1 will be discussed individually, it is important to note that marketing strategies and tactics often rely on multiple factors simultaneously. For example, changing from à la carte pricing to an all-you-can-eat fixed price can increase

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energy intake (Wansink and Payne, 2008) because of pricing effects (zero marginal cost of consumption), communication effects (loss of information about what is an appropriate serving size), and because of changes to the eating environment (increased access to food and clean plates that prevent the monitoring of consumption).

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