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Calories for Sale: Food Marketing to Children in the Twenty-First Century

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Budgets for marketing to children have spiked well into the billions, an escalation that mirrors the rise in childhood obesity rates. Children are targets for a maelstrom of marketing for all sorts of products enabled by sophisticated technology and minimal government regulation. Despite the fact that recent studies document links between food advertising and childhood obesity, a significant proportion of marketing that targets children is for energy-dense, low-nutrient food. Moreover, advances in digital technology allow marketers to find more direct, personalized gateways to reach young audiences that sidestep parental authority and bank as much on the unknowing parent as the gullible child. Cataloguing the depth and breadth of child-centered food marketing while discussing grassroots strategies for instituting change, the authors argue that parents can no longer keep pace either with innovations in advertising or increased spending, suggesting the need for more stringent government regulations on food marketing to children.

Keywords: food marketing; food advertising; childhood obesity; marketing to children; advertising to children; advertising regulation

Obesity Rates Mirror Rise in Marketing; History of Television Deregulation Complicit

Childhood obesity is a serious and escalating public health concern, yet children are targeted as never before by marketing for high-calorie, nutritionally deficient foods.

Overweight children are at risk for a number of medical problems, including hypertension, asthma (American Academy of Pediatrics 2003, 424), and type 2 diabetes, a disease previously found primarily in adults (Sinha et al. 2002, 802). Since 1980, the proportion of overweight children ages six to eleven has doubled to 15.3 percent; for adolescents, the rate has tripled to 15.5 percent (Ogden, Carroll, and Johnson 2002, 1728). The most recent studies suggest that "over 30% of American children are overweight

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or obese" while "only 2% eat a diet consistent with United States Department of Agriculture (USDA) guidelines" (Batada and Wootan 2007, 1). This unprecedented escalation of childhood obesity mirrors the equally unprecedented escalation of largely unregulated marketing that targets children. In 1983, corporations were spending $100 million on television advertising to children, which was essentially the only avenue available (Schor 2004, 21). By 2000, Burger King spent $80 million on advertising to children (Cebryznski and Zuber 2001) and Quaker Oats had allocated $15 million just to market Cap'n Crunch cereal (Thompson 1999). Today, food and beverage advertisers alone spend between $10 billion to $15 billion a year targeting youth (Eggerton 2007). Given the exponential rise in dollars spent on marketing to children, there is little doubt that the food industry believes that marketing is a critical factor in children's food choices—and research bears that out.

In recent years, the World Health Organization (WHO 2003), the Institute of Medicine (McGinnis, Goodman, and Kraak 2006), and the British Food Commission (Dalmeny, Hanna, and Lobstein 2004) conducted reviews of academic research pointing to a link between child-targeted marketing and childhood obesity. The 2006 report released by the Institute of Medicine (IOM) found that "for younger and older children, the evidence clearly supports the finding that television advertising influences their food and beverage purchase requests" (McGinnis, Goodman, and Kraak 2006, 21). Moreover, of the $200 billion spent by children and youth consumers, the four categories leading in sales are candy and snack foods, soft drinks, fast food, and cereal (McGinnis, Goodman, and Kraak 2006, 22). The IOM's findings underscore the important results of the 2003 review conducted by the WHO, which concluded that "the heavy marketing of high-calorie and low-nutrient foods and fast food outlets represents a probable increased risk for childhood obesity" (McGinnis, Goodman, and Kraak 2006, 301-2). Confirming the barrage of advertisements, a subsequent study published by the *American Journal of Public Health* of food commercials aired during the most popular shows for children ages six to eleven found that 83 percent were for snacks, fast foods, or sweets (Harrison and Marske 2005, 1568). Furthermore, the researchers found that a diet based on foods advertised on these programs would exceed U.S. Department of Agriculture Recommended Daily Values of

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fat, saturated fat, and sodium (Harrison and Marske 2005, 1568). Most recently, researchers at Stanford University found that when offered identical food including chicken nuggets, French fries, milk, and carrots in both McDonald's-branded wrapping and unbranded wrapping, 54 to 77 percent of the three- to five-year-old participants preferred the taste of the food they believed was from McDonald's. In fact, all the offerings were from the fast food giant, suggesting that the influence of market branding is so strong among preschoolers that it even trumps sensory input (Robinson et al. 2007, 796).

The current food marketing environment has its roots in the history of the Federal Communications Commission (FCC) and the Federal Trade Commission (FTC), which share most of the authority to regulate advertising and marketing to children. During the 1970s, Action for Children's Television (ACT), a public interest organization, criticized broadcasting networks for their failure to provide enough valuable educational programming to children and for failing to "protect children who are too young to effectively recognize and defend against commercial persuasion" (Kunkel 2001, 385). Citing several landmark studies[1] confirming that children younger than seven or eight cannot differentiate between program content and advertisements, ACT petitioned the FCC to devise protective regulatory policies, a petition that led to the first federal policies restricting advertisements during children's television (Kunkel 2001, 385). The FCC regulations limited commercial time, required a "clear separation" between program and commercial content, and restricted "host selling," or sales by program characters within program content (Kunkel 2001, 385).

The FTC attempted to reify and strengthen the former decision in 1978 by ruling that "advertising directed to children too young to understand a message's persuasive intent was inherently unfair and deceptive" (Kunkel 2001, 387). Amid a general climate of government deregulation in the late 1970s and early 1980s, the FTC's decision was met with shock from the advertising industry and from the government. Congress responded in 1980 by rescinding the FTC's authority to regulate advertising deemed "unfair" and, subsequently, abated policies for advertising to children (Kunkel 2001, 387). Although the FTC maintains authority to regulate advertising deemed "deceptive," the restriction of its authority crippled the potential for any broad-spectrum regulation in advertising to children for nearly three decades. As a result of the restriction placed on the FTC, today it is easier to regulate advertising targeted to adults than advertising targeted to children. Since the FTC Improvements Act of 1980 removed the FTC's power to regulate advertising to children that is deemed unfair, advertising to children is only regulated on the basis of practices deemed deceptive (Kunkel 2001, 387). In contrast, advertising to adults continues to be regulated on the basis of unfairness and deception (FTC.gov 2007).

In 1984, a watershed moment for advertisers, the FCC "rescinded all restrictions on the amount of commercial content" in favor of a self-regulatory policy that remains in effect today; it maintained that the advertising industry could better establish appropriate commercial levels (Kunkel 2001, 387). The Children's Advertising Review Unit (CARU), created in 1974 and funded by the advertising industry, establishes and encourages the self-regulatory guidelines for the industry. The disempowerment of the FTC and the FCC's recanting of its previous policy enabled CARU's rise to prominence; an era of industry self-regulation was born and continues today. Although the Children's Television Act of 1990 reinstated commercial time limits, restricting the time to 10.5 minutes per hour on weekends and 12 minutes per hour on weekdays during children's programming, restrictions were not placed on the content within those advertising windows, which have become gateways for an onslaught of food marketing to children (Kunkel 2001, 386).

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Food Marketing Tactics and Parental Authority

Under industry self-regulation, child-targeted marketing has become so ubiquitous and sophisticated that it presents a challenge to parental influence over children's food choices, particularly when companies frequently work with huge budgets and employ child psychologists to exploit children's developmental vulnerabilities. A study recently released by the Center for Digital Democracy cites several advertising conglomerates relying on social scientists, including the Gepetto Group, a marketing firm whose chief strategic officer claims to have pioneered the use of psychology and anthropology to understand what makes young consumers tick (Gepetto Group n.d.). Past clients have included Coca-Cola, McDonald's, Frito-Lay, and Kraft (Chester and Montgomery 2007, 19). This type of predation in tandem with the sheer ubiquity of print, screen, and digital advertisement, as well as marketing in schools, makes it nearly impossible for parents to intercede and limit children's exposure to food marketing and, subsequently, to control their children's food choices—especially outside the home. Food marketing, which takes place in a maelstrom of other marketing, now goes well beyond the thirty-second commercial and makes use of such marketing techniques as brand licensing, product placement, contests, promotions, cross-branding, and in-school marketing.

By pairing high-calorie, low-nutrient foods with beloved media characters or favorite media programs, marketing methods pose problems for parents attempting to make healthy food choices since their children are attracted to the characters on less healthful ones. For example, the 2007 film *Shrek the Third* had licensing agreements with McDonald's, M&Ms, and Kellogg's, permitting several of the film's most popular characters to adorn packages and advertisements. Research conducted as early as the 1970s suggests a correlation between media viewing and children's purchase requests. After researching parent-child interaction in the supermarket, Charles K. Atkin (1978, 41) reported that one-third of parent participants responded that children "often" ask for cereals after seeing television commercials, while an additional two-fifths report that children "sometimes" ask. In fact, researchers from Stanford University found that one 30-second food commercial can affect the brand choices of children as young as two, and repeated exposure has even more impact (Borzekowski and Robinson 2001, 42-46).

In general, techniques that partner characters with products are designed to lure children into selecting foods associated with favorite media programs. They are also designed to remind children of brands continually throughout the day. As one marketing expert noted, corporations are "trying to establish a situation where kids are exposed to their brand in as many different places as possible throughout the course of the day or the week, or almost anywhere they turn in the course of their daily rituals" (Bob Brown, MarketResearch.com, as cited in Kjos 2002, 1).

Brand Licensing

Brand licensing is particularly prevalent in children's television programming and is used to fund programs aimed at children, even on public television (Linn 2004, 41-60); it has also become an increasingly pervasive tactic for marketing blockbuster animated and family films like *Shrek the Third* and *Pirates of the Caribbean: At World's End*. Once a program or its characters are associated with a particular brand, the program itself becomes an ad for that food. Supermarket shelves are filled with examples of the links between media programs and food manufacturers.

A review by the Campaign for a Commercial-Free Childhood (CCFC) found the recently released *Shrek the Third* characters licensed to a variety of products marketed to children, including Kellogg's Marshmallow Froot Loops cereal, Keebler E.L. Fudge Double Stuffed cookies, "ogre-sized" Peanut Butter M&M's, Cheetos, and Kellogg's Frosted S'Mores Pop Tarts. The film's release also inspired a line of promotional glasses at McDonald's that entice children to such nutritionally remiss "ogre-fied" foods as the "ogre-tastic" Minty Mudd Bath Triple Thick Shake (McDonald's 2007). Tempting an audience of older children, *Pirates of the Caribbean: At World's End* also partnered with Kellogg's products through a send-away promotion for a Pirate Projection Alarm Clock, which, along with a shipping and handling fee, requires five "pirate tokens" from their products to order.

Although it seems logical to conclude that popular, recognizable characters like Shrek or Johnny Depp's "Captain Jack Sparrow" influence children's choices, the effect of licensed characters on product recognition and requests among children is hotly contested by marketing and academic researchers alike. However, most researchers do agree that children's recognition of spokes-characters is high. In fact, a 2004 study published in the *Journal of Advertising* suggested that spokes-characters elicit attention, recognition, and liking as well as product recognition and liking. While researchers Sabrina M. Neeley and David W. Schumann (2004, 18) refrained from concluding that spokes-characters influence children's choices, they did find that two- to five-year-olds could correctly partner a spokes-character to its product at "relatively high rates." Moreover, the use of spokes-characters to advertise commercial products to children is further complicated by their use in public service announcements (PSAs); the overlap may present conflicting messages to children. For instance, while Shrek appeared in advertising campaigns for McDonald's, he was simultaneously featured in PSAs for the U.S. Department of Health and Human Services healthy lifestyles and childhood obesity campaigns (CCFC 2007a).

While blockbuster films have frequently taken center stage as unhealthy vehicles for marketing to children, television show–linked products have been mainstays on store shelves. Nickelodeon's hit program *SpongeBob SquarePants* was Kraft's top selling macaroni and cheese in 2002 and the number one "face"-shaped Good Humor Ice Cream Bar (Nevius 2003, 37). Kraft has also recently featured Spiderman- and Shrek-shaped macaroni noodles alongside Scooby-Doo and Nickelodeon's *Fairly OddParents* shapes. Nickelodeon and Cartoon Network each have their own lines of Kellogg's fruit-flavored snacks (Saunders 2005, 2E). Along with *Blue's Clues*– and *Dora the Explorer*–shaped snacks, *Go Diego Go!* and the popular toy brand, Lego, join the company's list of commercially linked food products. Recognizing the popularity of media-linked, fruit-flavored snacks, General Mills's Betty Crocker line has licensing agreements with popular toys like My Little Pony, Polly Pocket, and Tonka trucks, and with the cable television station Animal Planet.

In response to growing concerns about childhood obesity and food marketing, Nickelodeon announced that *SpongeBob SquarePants*, *Dora the Explorer*, and other characters would appear on packages of spinach, carrots, and other vegetables (Hill 2005, 1C). Nickelodeon will continue, however, to license these same characters to products of questionable nutritional value. While it is possible that branding vegetables with cartoon characters will lead to a rise in sales, no evidence indicates that it will lead to a decrease in children's desire for, or consumption of, branded junk food. In fact, a more recent study of Nickelodeon television programming suggests that its "healthier" in-store marketing efforts are undercut by its television marketing. Of the 652 ads witnessed during twenty-eight hours of viewing, 168 were food ads, which account for 26 percent of the total ads viewed; the foods most commonly advertised were sugary cereals (25 percent of all food ads), fast-food restaurants (19 percent), and pastries (12 percent) (Batada and Wootan 2007, 2). In any case, the use of licensed characters to sell even healthy food to children is problematic. In addition to selling products, marketing to children promotes habits and behaviors. We have to ask ourselves if it is in children's best interest to be trained to select food based on what is decorating its packaging rather than on its nutrition or even its taste, particularly when packaging seems a leading determinant for children. Sesame Workshop, endowed with a grant from the Dr. Robert C. Atkins Foundation in 2005 to replicate and expand its research conducted a study titled "The Effectiveness of Characters on Children's Food Choices," which found that appending a sticker of a recognizable Sesame Street character to food's packaging strongly affected children's food selection. Most striking, the study found that when given an unbranded choice between a chocolate bar and broccoli, 78 percent of children participating chose the chocolate bar while only 22 percent selected the broccoli. When an Elmo sticker was added to the broccoli and an unknown character placed on the chocolate, the results changed drastically—50 percent of children chose the Elmo-branded broccoli (Sesame Workshop 2005). What remains unexamined, however, is what a child would choose if offered both vegetables and sweets featuring the same favorite media character—a possibility likely found at the supermarket.

Product Placement

Product placement in children's television programming is technically prohibited by law (FTC 1974) but is rampant in the prime-time programs that are children's favorites. According to *Business Week*, Coca-Cola paid $20 million for product placement in *American Idol*, which is consistently rated among the top ten shows for children ages two to eleven and is frequently among the top three (Foust and Grow 2004, 77). From April 23 to May 20, 2007, each episode of *American Idol* exposed between 1.93 million to 2.4 million two- to eleven-year-old children to Coca Cola's product placement (Nielsen Media Research 2007).

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Nor is product placement limited to television programs. No regulation exists for placing brands within the context of films, video games, or the Internet. Reaching beyond the television, *American Idol*'s 2007 Live Tour is being sponsored by Pop Tarts, which will offer "exclusive tour webisodes" on its Web site. McDonald's food products were embedded in the hit children's film *Spy Kids*, while Burger King used product placement in the film *Scooby Doo 2* (Minnow 2004). Mountain Dew pushed product placement to its logical conclusion—a high-budget feature film doubling as an advertisement—by producing *First Descent* (Lawton 2005, B4). The film, documenting five snowboarders' "first descent" down a previously unridden mountainside, features snowboards and helmets emblazoned with Mountain Dew's logo (firstdescentmovie.com 2005). Continuing to pad its on-screen resume, product placement for Mountain Dew also appeared in the *Transformers* movie released on July 3, 2007 (Reuters 2007).

Product placement in video and online games is a booming business expected to reach $1 billion by the end of the decade (Gentile 2005). Burger King ads, for instance, appear in video sports games, and in the online game *Everquest* it is possible to click on a Pizza Hut icon and have a pizza delivered in thirty minutes (Gentile 2005). The popular children's Web site, *Neopets*, now owned by Nickelodeon, trademarked the term "Immersive Advertising," a description of the way that brands such as McDonald's, General Mills, Disney, and others have been incorporated into children's use of the site (Winding 2002, 17). As part of the game, for instance, children are encouraged to send their friends a Reese's Puffs Cereal screen saver and to watch commercials for sugary cereals (Neopets.com 2005). After placing EZ squirt ketchup in the *Neopets* Web site, a Heinz executive commented that product awareness "just went through the roof. . . . Trials of the product increased by 18 percent" (Winding 2002, 17).

Another kind of product placement that targets children is called "advergaming" in which computer games are totally built around products in order to keep children's attention focused on specific brands much longer than traditional commercials (Powell 2003, 11). One site, called *Candystand*, consists of games featuring products from the confectioner Wrigley, such as Lifesavers, Gummie Savers, and Wrigley's Extra (Wrigley's Candystand 2007). Many advergames give an advantage to players who have purchased specific foods. For example, at Kraft's Lunchables Web site, visitors can access only two of the eight puzzle games promoting the July 2007 *Tranformers* movie without promotional codes found within the products (Kraftsbrands.com 2007b). Likewise, the SpongeBob SquarePants Bubble Trouble Cereal Game does not allow children to play more than once unless they can answer questions about the cereal's packaging (SpongeBob SquarePants Bubble Trouble Cereal Game 2005).

Even music is not exempt from product placement. McDonald's attempt to pay hip-hop artists to incorporate Big Macs into their lyrics has stalled, but there is every reason to expect that they and other food companies will keep trying (Grasser 2005).

Contests

Contests or sweepstakes targeting children are frequently partnered with films or foods. In the summer of 2007, Sunny D's "Sunmobile" toured seventeen states featuring games, prizes, and giveaways spotlighting the sugary beverage. While the drink does contain 100 percent of a child's RDA of vitamin C, that benefit comes with a high caloric price. An eight-ounce serving of the original Sunny D has 120 calories and a whopping 29 grams of sugar (SunnyD.com 2007b), while beverages in its "Baja" line, only available in twelve-ounce bottles, spike to 190 calories and 43 grams of sugar (SunnyD.com 2007a). Warner Brothers, owners of Hanna-Barbara, partnered with Post Cereal's Fruity and Cocoa Pebbles to offer a prize a week for a year in its "52 Weeks . . . 52 Winners!" promotion (Warnerbros.com 2007). Kraft Macaroni & Cheese promoted its "Mac & Cheese-a-palooza" contest, which required entering product UPC codes for entry. The winners are flown to Los Angeles as VIP guests with backstage access to a Cheetah Girls concert (Kraftsbrands.com 2007a)—the Cheetah Girls, a Radio Disney phenomenon, also inspired several CDs, DVDs, and a line of books (The Cheetah Girls Official Site 2007).

Promotions

Promotions and tie-ins that target children also frequently accompany films that are designed for a more general audience. *Star Wars: Episode III—Revenge of the Sith*, released in May 2005, had sixteen food promotions featuring twenty-five different products. Many of these promotions encouraged young children to consume large portions of food that is high in calories, fat, and sugar. To collect all seventy-two *Star Wars* M&M wrappers, children would need to buy forty-five pounds of M&Ms (containing more than 10,000 grams of sugar). To collect all thirty-one *Star Wars* Super D toys "for free," kids would need to buy more than five Burger King children's meals; a typical children's meal of a cheeseburger, small fries, and kid's Coke contains 690 calories, 28 grams of fat, and 35 grams of sugar. The prizes in many of these promotions—toys, puzzles, the Lego Star Wars Video Game—were clearly chosen for their appeal to very young children, despite the fact that *Revenge of the Sith* was rated PG-13 (CCFC 2005b). In 2007, Burger King enticed children to collect eight toys promoting the release of the *Transformers* movie and Kraft's Lunchables include one of six *Transformer* toys with purchase (Kraftsbrands.com 2007b).

Food and beverage promotions are used to market films weeks before they premiere. More than a month before the release of the 2005 blockbuster film *King Kong*, the giant gorilla appeared on 18 million boxes of Apple Jacks and Corn Pops, 10 million packages of Butterfinger and Baby Ruth Bars, as well as in Burger King promotions (Feeny 2005, C3). However, the results of CCFC's (2007c) review of *Shrek the Third* certainly suggests an ogre's appetite is as hearty as a gorilla's—the film, the target audience of which is children, inspired more than seventeen separate food promotions linked to more than seventy nutrition-poor foods.

In-School Marketing

Marketing to children is not limited to time spent using media. In 2000, a report from the federal government's General Accounting Office (GAO) called marketing in schools a "growth industry" (U.S. GAO 2000). Companies find marketing in schools to be especially effective because students constitute a captive audience unable to avoid commercial messages (Consumers Union 1998).

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Channel One. According to its Web site, the corporate sponsored news program Channel One is shown in nearly twelve thousand schools to almost eight million students (Channel One 2005). In exchange for free video equipment, schools agree to a show a Channel One program every day to their students, consisting of ten minutes of news and approximately two minutes of commercials. Food advertising has been quite popular on Channel One. Regular advertisers on Channel One have included Pepsi, Mountain Dew, Snickers, and Kellogg's Pop Tarts. It should be noted that Channel One was facing serious financial difficulties until its April 23, 2007, sale to Alloy Inc., a major teen and 'tween marketing company (Fung 2007). These difficulties were due, in part, to growing public pressure to curtail junk food marketing—Kellogg's and Kraft no longer advertise on Channel One (Atkinson 2005, 3). However, in July 2007, Alloy-owned Channel One announced a new partnership with NBC, which will now provide news content for the station (Miller 2007, C5). Although Channel One's future in schools is still in doubt, the new partnership—which includes ties to a youth marketing company—is worrisome for those concerned about the extensive commercial content formerly seen on the station.

Vending machines, direct sales, and exclusive agreements. In 2000, a national survey found that 94 percent of high schools, 84 percent of middle schools, and 58 percent of elementary schools allowed the sale of soda or other sugar-laden soft drinks on their premises. The same survey also found nearly two-thirds of all schools allowed the sale of salty snacks with high fat content; more than half of all schools allowed the sale of candy (Centers for Disease Control and Prevention [CDC] 2001). In addition, more than 20 percent of schools sell brand-name fast food such as McDonald's and Taco Bell on their premises (CDC 2001). While several states and a number of school districts have instituted new policies to restrict the sale of unhealthy foods in schools, an August 2005 report by the GAO reported that junk food was still available in nearly nine out of ten schools.

Many school districts sign pouring rights contracts with Coca-Cola or Pepsico. These contracts give beverage companies exclusive rights to sell their products at school events and place vending machines on school property. The amount of money a school receives is often tied to the sale of beverages, thus giving schools an incentive to encourage the consumption of soft drinks. While both Coke and Pepsi claim that they no longer insist that schools sign a pouring rights contract, nearly half of all schools in 2003-2004 had an exclusive beverage agreement and the percentage of middle schools with an exclusive beverage contract more than doubled between 1998-1999 and 2003-2004 (U.S. GAO 2005, 20). In one-third of these schools, the agreement covers five years or more (U.S. GAO 2005, 15).

Incentive programs. Many schools now use corporate-sponsored incentive programs as rewards for students. For example, Pizza Hut's Book-It program offers free pizzas to students who read a certain number of books. The program has involved millions of students and has expanded into preschools (Schlosser 2001, 56). Similarly, Papa John's gives students who earn at least a C in all of their classes a "Winner's Card" that can be exchanged for prizes including pizza, ice cream, and donuts ("School News" 2004).

Direct advertising on school space. Advertising frequently appears on interior and exterior school walls, gymnasiums, scoreboards, and at school athletic events. A 2004 report found a significant increase in advertising on school buses (Molnar 2004, 35). Much of this advertising is for soft drinks and snack foods. Cover Concepts, a company that distributes free textbook covers, posters, and other sponsored materials in schools, claims to reach 30 million schoolchildren in more than half of the nation's schools (Cover Concepts 2005). Cover Concepts includes McDonald's, Pepsi, Frito Lay, M&M's, and General Mills among its clients (Story and French 2004, 3).

Sponsored educational materials and programs. Many corporations produce educational materials for use in the classroom. A Consumers Union review of seventy-seven corporate-sponsored classroom kits, however, found nearly 80 percent to be biased or incomplete, "promoting a viewpoint that favors consumption of the sponsor's product or service or a position that favors the company or its economic agenda" (Consumers Union 1998, 3). Analyses of teaching materials produced by the food industry support this conclusion. For instance, according to a Kellogg's nutrition curriculum, students should be concerned only about fat content when choosing breakfast. Sugar, a prominent ingredient in many cereals, is not mentioned (Schor 2004, 93). A poster on nutrition put out by Frito-Lay exhorted kids to "Snack for Power, Snack for Fun!" "Did you know," the poster asked, "Cheetos, Doritos, and other Frito-Snacks give you the bread/brain power that the food guide pyramid says you need?" (Linn 2004, 89).

Coca-Cola partners with Reading Is Fundamental (Reading Is Fundamental 2001) and also provides elementary schools with a reading program called The Coca-Cola Story Chasers Mobile (Hacket 2005, BV4). In recent years, McDonald's has been particularly aggressive in pursuing in-school marketing opportunities. The fast-food chain sends Ronald McDonald into schools to promote, among other things, literacy (Meyers 2004), character education (Townville Elementary School Web site 2005), and first aid (Save a Life Foundation 2005).

In September 2005, McDonald's unveiled "Passport to Play" teaching materials and giveaways featuring the McDonald's logo that suggest ways to encourage children to be more active. In this, they joined several other food companies producing physical education materials for schools, which serve the dual purpose of promoting their brand to children and shifting the focus away from the role that their food products play in the obesity epidemic by emphasizing exercise as the key to a healthy lifestyle. McDonald's expects the program to be in at least thirty-one thousand schools nationwide (Hellmich 2005, 7D).

Similarly, Coca-Cola's "Live It" program features Lance Armstrong and other popular athletes who encourage kids to be active. "Live It" is expected to reach more than 2 million sixth-graders (Warner 2005). Meanwhile, Pepsi plans to reach 3 million elementary school students with its "Balance First" fitness program (Simon 2005, B9).

Fund-raising. Scarce funding for public education has provided new opportunities for companies to market in schools under the guise of fund-raising. Programs such as Campbell's Labels for Education and General Mills Box Tops for Education (Linn 2004, 89) encourage children to put pressure on parents to buy particular brands to raise money for their school, even if they may be more expensive or less desirable than brands a family would normally buy. Students are also encouraged to sell candy, such as M&M's, to raise money (School Fund-Raisers.com 2005).

Unfortunately, evidence suggests that schools—unlike advertisers—fail to profit from in-school marketing, making the partnership a deceptively unilateral pairing. In a study released in 2007, Arizona State University's Commercialism in Education Research Unit (CERU) reported that of the schools participating in income-generating advertising activities, 73.4 percent did not receive any income in the 2003-2004 academic year through activities with corporations that sell foods of minimal nutritional value. An additional 12.6 percent of schools received $2,500 or less, while only 0.4 percent of schools that participated in income-generating advertising activities received more than $50,000 from corporations that sell foods high in fat and sugar (Molnar et al. 2006, 4).

New Technologies: Increased Access

The vast array of new technologies makes it possible for companies to target children without parental knowledge or consent and presents another challenge to parents' authority over their children's food choices. With children's ever-increasing access to and use of computers, the Internet is rife with marketing opportunities; given documented trends in Internet usage during the early 2000s, "a recent estimate suggests that more than 34 million children and youth ages 3 to 17 years in the United States use the internet" (Rubin 2004, as quoted in McGinnis, Goodman, and Kraak 2006, 177). The Internet, home to a myriad of commercialized networking sites like Facebook, MySpace, and Yahoo! Messenger, is replete with sidebar ads and pop-ups advertising the latest products, films, and video games. While the sites' home pages act as billboards, marketers also use the sites' potential for word-of-mouth and "click-of-mouse" advertisement. Social networking sites, which rely on interpersonal dialogues amid preextent social networks, are hotbeds for viral marketing. In addition to the Internet, cell phones and iPods provide intimate, personalized spaces for marketers to target children; for example, in 2006, Kellogg's Pop-Tarts offered codes for free music downloads in specially marked packages (Kellogg Company Press Releases 2006).

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Video Games

While food marketing is frequently seen in product placement within games released for sale, Burger King has taken the partnership of food marketing and gaming to a new level. In 2006, Burger King released three video games for multiple platforms featuring its King character. Prominently bedecked in Burger King–emblazoned accoutrements of royalty, *Sneak King* players "step into the royal shoes of the King himself" and "silently unleash hot sandwiches on the hungry citizens of [the game's] famished world" (Xbox Games 2007, "Sneak King"). Despite releasing its own game, Burger King—like many other food-related Web sites—still participates in online advergaming, recently featuring a game on its Web site promoting the 2007 release of *Fantastic Four: Rise of the Silver Surfer* (Burger King and Dr. Pepper Seek the Silver Surfer Game 2007). Partnering with a cartoon or release of a film to offer an online video game seems a common practice; in a minisurvey of food and beverage Web sites, we found twelve sites featuring online games, including McDonald's, Burger King, Taco Bell, Mountain Dew, Dr. Pepper, Coca-Cola, Skittles, Starburst, M&Ms, Cheetos, Doritos, and Pringles. Many of these sites feature their products as game characters; for example, different variety Doritos' bags "duke it out" in the site's online "Fight for Flavor" game (Doritos.com 2007).

Cell Phones and iPods: Mobile Marketing

Between 2002 and 2004, the number of twelve- to fourteen-year-olds with cell phones jumped from 13 to 40 percent; phones are now being marketed to children as young as six (Pereca 2005). As companies market cell phones and video iPods to younger and younger children, they are providing food marketers with a new way to target youth. Frito Lay, for instance, created an integrated marketing approach to promote Black Pepper Jack Doritos that incorporated text messaging, billboards, and the Internet alongside television and radio commercials (Frito-Lay.com 2005). Cell phone-based contests, such as Pepsico's "Call upon Yoda" sweepstakes (CCFC 2005b) and Nestle's "Grab. Gulp. Win!" are increasingly common, and Coca-Cola plans to launch a line of mobile advergames for phones (Cuneo 2005). Like cell phones, iPods with video allow users to purchase and download content like films, television shows, or YouTube videos—complete with commercials.

Social Networking Sites

On July 25, 2007, Alloy Media & Marketing, which specializes in marketing to children and teens, released a white paper reporting that "96% of online tweens and teens connect to a social network at least once a week," bespeaking the overwhelming popularity of sites like MySpace (Klaassen 2007). With the plethora of ever-changing pop-ups and sidebars, food ads are certainly among those featured while a user navigates the site. Additionally, changing on a daily basis, the MySpace home page generally acts as a billboard for a single advertiser. In one visit to the site, the MySpace home page cast a magenta hue with an advertisement for Cherry Coke, which linked to its own networking page and information about its "Cherry Coke MySpace Page Design Contest" (MySpace.com 2007). To enter the contest, one is immediately prompted to add "Cherry Coke" to her or his friends list, allowing Coca-Cola to communicate directly with its list of "friends"—or, rather, potential consumers—talk about personalized and instantaneous marketing! However, we find Burger King again at the fore of digital innovation when in 2006 it launched a page for its King character—he had more than 120,000 "friends" by September of that year (King 2006). With an eye toward partnering the popularity of social networking sites and cell phones, in June 2007 Coca-Cola introduced Sprite Yard, which allows users to set up profiles and network via cell phones as one would on an online site. Additionally, users can redeem cap codes online for downloadable content like ring tones and video clips (Story 2007).

Marketing and Family Stress

Food comprises a significant portion of what is marketed to children, but it takes place in the context of a myriad of marketing ventures for other products. Toys, clothing, accessories, movies, television programs, video games, and countless other consumer goods are all marketed extensively to children, as are products traditionally purchased by adults such as automobiles and air travel (Linn 2004, 31-44).

The sheer volume of marketing targeted at children is stressful for families. As most parents struggle to set limits, corporations often undermine parental authority by encouraging children to nag (Linn 2004, 31-44). They also inundate children with images that tend to portray adults as incompetent, mean, or absent and encourage children to engage in behaviors that are troublesome to parents (Linn 2004, 189-90). A 1999 article in *Advertising Age* begins, "Mothers are known for instructing children not to play with their food. But increasingly marketers are encouraging them to" (Pollack 1999). Instead of acquiescing to parents' concerns, the marketing industry often sees parental disapproval as a strong selling point with kids (Linn 2004, 31-40). When discussing the strategy for selling Kraft Lunchables, a marketing expert put it this way: "Parents do not fully approve—they would rather their child ate a more traditional lunch—but this adds to the brand's appeal among children because it reinforces their need to feel in control" (Neville 2001, 17).

Government Regulation versus Self-Regulation

The United States currently regulates marketing to children less than most other industrialized democratic nations. Sweden and Norway ban marketing to children younger than twelve (Briggs 2003, A1). The Canadian Province of Quebec bans marketing to children younger than thirteen (Riverd and LeBlanc 2000, B10). Greece prohibits ads for toys on television between 7 a.m. and 10 p.m., while ads for toy guns and tanks are not allowed at any time (Hawkes 2004, 19). In Flemish-speaking areas of Belgium, no advertising is allowed within five minutes of a children's television program shown on a local station (Rowan 2002, 6). Finland bans advertisements that are delivered by children or by familiar cartoon characters (Hawkes 2004, 19). The French parliament banned all vending machines in middle and secondary schools (Taylor 2004, A11). Moreover, advertising regulations proposed by the European Union would ban commercials that imply that children's acceptance by peers is dependent on use of a product (Metherell 2002, 3), while New Zealand is considering a wholesale ban on junk food marketing to kids (Metherell 2002, 3). In recent years, Britain has begun to take steps to curb marketing to children. In 2004, the British Broadcasting Corporation severed marketing connections between their children's programming and junk food companies ("BBC to Limit Ties to Junk Food" 2004, D5). In addition, a bill in Parliament to ban all junk food marketing on television until after 9:00 p.m. currently has significant support (Brown 2007).

In the United States, the escalation of marketing to children and the rise of childhood obesity have occurred while the CARU—the advertising industry's self-appointed watchdog—has served as the primary self-regulatory agency responsible for monitoring child-directed advertising. This problematic internal monitoring has led advocates to call for increased government regulation of food marketing to children (CCFC 2005a). However, the current administration is philosophically opposed to regulation. Corporations are quick to exploit what has become a national zeitgeist of individual responsibility. The food industry has been a powerful lobby and food marketing to children is a profitable endeavor; it is naïve to think that companies are going to completely stop marketing their products to children without external regulations or that such regulations are going to come about without significant grassroots pressure from advocacy groups.

In June 2007, for instance, Kellogg's agreed to curtail its marketing to children younger than twelve and to stop marketing using media-licensed characters by 2008—but only as the result of negotiations following the threat of a potential lawsuit. The CCFC, the Center for Science in the Public Interest (CSPI), and two Massachusetts parents filed an "intent to file suit" in the Commonwealth of Massachusetts Superior Court (CCFC 2007b). If the agreement is faithfully implemented, this means that many of the Kellogg's-linked products described earlier in this article will no longer target children, with or without media characters.

A lawsuit, or the threat of one, is not an efficient way to establish national policy. Addressing the problem on a company-by-company basis drains valuable time and already scarce resources from advocacy groups.

While the extent of Kellogg's agreement to adopt stricter nutrition and marketing standards that reduce sugar and fat in their products, and advertising to children is unprecedented in the food industry, the agreement is still flawed. The negotiated standard for sodium is less stringent than that recommended by the IOM (2007) for foods acceptable in schools, and there is concern that the standard for sugar is too high ("Adult-Only Froot Loops" 2007, A12). More than that, the shortcomings of the agreement underscore an important point: a lawsuit, or the threat of one, is not an efficient way to establish national policy. Addressing the problem on a company-by-company basis drains valuable time and already scarce resources from advocacy groups.

Nevertheless, the formalized threat of a lawsuit heightened awareness and escalated pressure on food companies to curtail their child-targeted marketing. On July 18, 2007, to stave off threats of government regulation, eleven major food companies announced details of their own voluntary pledges to restrict marketing to children and, for the first time, to open their marketing plans to the Better Business Bureau and CARU (Zuill and Vorman 2007). How effective these pledges will be in actually restricting junk food marketing to children remains to be seen. Taken as a whole, however, these pledges represent many of the flaws inherent in self-regulation. Companies are not adhering to any uniform standard; rather, each company sets its own standard, which means that monitoring compliance is going to be quite difficult. More problematic, at no point has the entire food industry agreed to restrict marketing to children. As this article is written, Burger King, Nestle, ConAgra, and Chuck E. Cheese have publicly refused to participate (Tienowitz 2007). Finally, history suggests that because these pledges are voluntary and not legally binding, they can be broken, sidestepped, or even remain unimplemented with little or no consequence.

In June 2007, a month before the food companies' pledges were released, Representative Edward Markey (D-Mass.) ended a meeting of the House Committee on Energy and Commerce Subcommittee on Telecommunications with a promising warning: "The First Amendment is precious, but children are just as precious. We need a healthy balance to make sure our children aren't bombarded with these messages." He continued, "Most parents are not in the position to control what kids see—they are both working. While these kids have all these unhealthy choices presented to them in the media, if there is not a proper response from industry, I'm prepared to press the FCC to put on the books rules to protect kids from unhealthy messages" (as quoted in Greenberg 2007). Markey's warning echoes that of Senator Tom Harkin (D-Iowa), who made a similar comment about the FTC at a 2005 workshop on food marketing and self-regulation (Dobson and Knightly 2005). He and Senator Sam Brownback (R-Kansas) have formed an advisory committee to work with the FCC on issues of food marketing to children (Brownback.senate.gov 2007). In addition, as of this writing, the FTC is readying subpoenas to forty-four food companies and fast-food restaurants for a congressionally mandated study on food marketing to children (Tienowitz 2007). At this time, it is hard to know what the results of this government activity will be, but these efforts are significant. They occasion the federal government's first movements toward adopting a strong stance to curb marketing unhealthy food to children since 1980, when Congress restricted the FTC's ability to regulate marketing to children.

Conclusion

The rise of childhood obesity mirrors the unprecedented increase of food marketing aimed at children. Companies bypass parents and target children directly in a myriad of ways through the media, through toys, and even in schools. While food companies and the marketing industry tout self-regulation as a solution to the problem, current levels of child-targeted food marketing and the rise in childhood obesity strongly suggest that self-regulation has failed.

From a public-health perspective, what makes the most sense is to prohibit marketing brands of food to children altogether. When childhood obesity is a major public health problem, certainly there is no moral, ethical, or social justification for marketing low-nutrient, energy-dense foods to children. Even marketing healthier brands to children through media-linked spokes-characters or ads on television and the Web seems problematic. Do we want to encourage our children to make food requests or purchases based on commercials whose marketing implicitly or explicitly suggests a product will enhance their social life, make them happier, or increase their power—messages routinely embedded in advertising?

We should also question the wisdom of depending on the food and media industries to promote healthy eating to children. The partnership between the producers of *Shrek the Third* and the Department of Health and Human Services is emblematic of the inherent conflict of interest between encouraging healthy lifestyles and promoting the consumption of unhealthy food. It does not seem wise to depend on corporations, bound by law to promote profits, to be the guardians of public health. Instead, on both the state and federal level, the government should take steps to restrict the current onslaught of food marketing that targets children. The reality of drafting and bringing to fruition such legislation is both complex and cumbersome, but that should not prevent a creative and rigorous exploration of a wide range of options for restricting food marketing to children. The following are suggestions for changes in policy that would limit the amount of child-targeted junk food marketing:

- Congress should restore to the FTC its full capacity to regulate marketing to children.
- The marketing and sale of brands associated with unhealthy food products in schools should be prohibited, including corporate-sponsored teaching materials.
- Corporate tax deductions for advertising and marketing junk food to children could be eliminated.
- Product placement of food brands could be discouraged in movies, video and computer games, and television programs popular with children and adolescents by requiring that such embedded advertising be identified when it occurs.
- Food companies should be prohibited from using advertising techniques that exploit children's developmental vulnerabilities, such as commercials that encourage kids to turn to food for empowerment, or to be popular, or for fun.
- The use of licensed media characters to market food products to young children should be prohibited, as should child-targeted sweepstakes and contests.
- We should prohibit links between toy and food companies that lead to food-branded toys and toy giveaways by fast-food companies such as McDonald's and Burger King.
- We should support a truly commercial-free public broadcasting system that would provide programming for children free of any marketing, including brand licensing.

It is not in children's best interest to depend on the food industry to be the guardians of public health. Only an across-the-board set of policies—designed and enforced by a body from outside the food and marketing industries—can both protect children's health and maintain a level playing field between companies.

Note

1. For a catalogue of those studies, see Kunkel (2001).

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