

An Attributional Explanation of Consumers' Responses to  
Government Regulations and Corporate Social Responsibility,  
with Implications for Childhood Obesity

by

Claudia Dumitrescu

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Graduate Supervisory Committee:

Renée Shaw Hughner, Chair  
Troy G. Schmitz  
George Seperich  
Clifford J. Shultz, II

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## ABSTRACT

There have been multiple calls for research on consumers' responses to social issues, regulatory changes, and corporate behavior. Thus, this dissertation proposes and tests a conceptual framework of parents' responses to government regulations and corporate social responsibility (CSR) that address juvenile obesity. This research builds on Attribution Theory to examine the impact of government regulations and CSR on consumers' attitudes and their subsequent behavior.

Three pilot studies and three main experiments were conducted; a between-subjects and randomized experimental design being used to capture the effects of regulations and corporate actions on product satisfaction, company evaluations, and behavioral intentions, while examining the mediating role of attributions of responsibility for a negative product outcome.

This research has implications for policy makers and marketing practitioners and scholars. This is the first study to offer a new perspective, based on attributions of blame, to explain the mechanism that drives consumers' responses to government regulations. Considering numerous calls for government actions that address childhood obesity, it is important to understand how and why consumers respond to such regulations. The results illustrated that certain policies may have unintended consequences due to unexpected attributions of blame for unhealthy products.

Only recently have researchers tried to address the psychological mechanism through which CSR has an impact on consumers' attitudes and behavior. To date, few studies have investigated attributions as a mediating variable in the transfer of CSR associations on consumer responses. Nonetheless, this is the first study that concentrates

on attributions of responsibility, per se, to explain the impact of CSR on company evaluations. This dissertation extends previous research, where locus, stability, and controllability mediated the relationship between CSR and attributions of blame; the degree of blame being consequential to brand evaluations. The current results suggest that attributions of responsibility, per se, mediate the impact of CSR on company evaluations. Additionally, attributions of blame are measured as the degree to which consumers take personal responsibility for a negative product outcome. This highlights a new role of the CSR construct, as a moderator of consumers' self-serving bias, a fundamental psychological response that has been neglected in the marketing literature.

## DEDICATION

In no particular order:

To my grandparents, who have taught me that  
hard work and perseverance represent the key to success

To my parents, who have always nurtured my aspirations  
and wisely guided my steps through life

To my husband, whose wisdom and endless care, love, and patience  
have shaped my life and helped me fulfill my dreams

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## Chapter 1

Obesity is a worldwide health issue and its rates, along with poor diets, have persisted despite tremendous promotion of the benefits associated with a healthy lifestyle (Mancino & Kinsey, 2008). Childhood obesity has doubled, in children, and tripled, in adolescents, in the past 30 years (National Center for Health Statistics, 2012; Ogden, Carroll, Kit, & Flegal, 2012). Childhood obesity has immediate and long-term effects on the health and well-being of children and adolescents; increased risk factors for cardiovascular disease, greater risk for bone and joint problems, higher chances for type 2 diabetes, stroke, and several types of cancer are among these detrimental effects (Centers for Disease Control and Prevention [CDC], 2013).

Although numerous initiatives and studies have focused on this global issue, obesity continues to be intensely addressed by academics, government, and consumer organizations. The most recent initiative is the White House Task Force on Childhood Obesity report which emphasizes the role of nutrition and physical activity, the need to change individual behaviors as well as the environments and policies that have an impact on those behaviors (Barnes, 2010). Attention, at the same time, has increasingly been given to food advertising targeted to children as a factor contributing to increased levels of childhood obesity. There is strong evidence showing that children's food preferences and purchase requests for foods - that are high in sugar and fat - are influenced by exposure to food advertising (Borzekowski & Robinson, 2001; Horgan, Choate, & Brownell, 2001; Isler, Popper, & Ward, 1987; Story & French, 2004). Thus, food marketing tactics that target children have been extensively criticized due to concerns about increasing rates of childhood obesity and the health problems related to this illness

(Quilliam, 2008; Quilliam, Lee, Cole, & Kim, 2011). Food marketers spend approximately \$10 billion each year to promote their products to children and youth which has amplified the criticism of their practices (McGinnis, Gootman, & Kraak, 2006); the disparagement towards these marketing tactics stems from the fact that advertising influences obesity by encouraging the consumption of unhealthy food products (Dhar & Baylis, 2011).

Parental concerns about food marketing practices used to promote and sell products to children were recognized nearly thirty years ago (Grossbart & Crosby, 1984). Rising obesity rates among children have led many to blame the fast food industry because frequenting quick-service restaurants has been linked to higher intakes of sodium, fat, calories, and soft drinks, and lower intakes of healthful nutrients like fruits and vegetables (Bowman, Gortmaker, Ebbeling, Pereira, & Ludwig, 2004; Paeratakul, Ferdinand, Champagne, Ryan, & Bray, 2003). As such, some regulatory agencies are seeking legislation to restrict certain marketing practices by restaurants and fast food outlets.

One such regulation took effect on December 2011 in the state of California. The San Francisco's Board of Supervisors ordinance requires food service meals and beverages targeted to children to meet certain nutritional standards for fat, calories, sugar, and sodium if toy premiums or any other incentives are included with the food purchase (e.g., Happy Meals). This ordinance is similar to a regulation passed earlier in Santa Clara, which banned free toys with children's meals that do not meet nutritional standards for a healthy diet. Both San Francisco and Santa Clara ordinances aim to help parents change their attitudes and behavior toward those food products that do not meet certain



nutritional standards for fat, calories, sugar, and sodium. A scan of online blogs revealed that consumers are unhappy with this legislation, citing responsibility for children's diets to be the role of parents, not the government, and indicating defiant attitudes towards changing meal selections. It appears that, although parents may criticize the tactics used to market food to children, they do not necessarily embrace legislative control (Grossbart & Crosby, 1984).

Despite policy initiatives and proposals to curtail obesity, there is a lack of research on the public's attitudes toward these issues (Oliver & Lee, 2005). Consequently, the effects of obesity-prevention campaigns, such as the Californian toy ban, on consumers' attitudes and behavior are unclear.

In conjunction with government regulations, amidst growing public concerns about childhood obesity, food marketers have responded with self-regulatory actions. One of the most pressing problems that food marketers face amidst increasing scrutiny over food marketing practices is to identify the efficient solutions to improve their image and credibility. Food companies need to be perceived as more responsible; one mode to accomplish this objective is to act before government regulations emerge (Jolly & Mowen, 1985; Shrivastava & Siomkos, 1989). Research has demonstrated that consumers will recognize a company as being a good citizen, or more responsible, if it intervenes prior to government action (Siomkos & Kurzbard, 1994).

Following this logic, certain larger food companies have enacted strategies to become more responsible in the marketing of food products to children. For example, Kraft pledged to eliminate advertising to children, of foods that do not meet certain nutritional standards ("Kraft," 2005) and Jack in the Box has eliminated toys from its

children's meals as of June 2011 (Morrison, 2011). Nonetheless, the failure of self-regulation has been also documented (Brownell & Warner, 2009; Kunkel, McKinley, & Wright, 2009). For example, there are companies that have decided to advertise, to children, healthier food and beverage products; however, there was "no uniform criteria specifying the minimum nutritional standards" (Kunkel et al., 2009, p. 5). Other examples stem from the lack of healthy food advertising and the use of licensed characters with nutritionally poor products rather than foods and beverages that provide a healthy diet (Kunkel et al., 2009). This has triggered more calls for government regulatory intervention to reduce advertising of those food products that are deemed unhealthy.

While these governmental and corporate initiatives addressing childhood obesity may be well intended, it is unclear how and why consumers respond to such efforts. Building on the findings of previous researchers (e.g., Clee & Wicklund, 1980; Conway & Schaller, 2005; Stewart & Martin, 1994) a model is developed which indicates that a government ban can lead to a deviance in consumers' attitudes and their subsequent behavior. The Theory of Psychological Reactance is one perspective through which these effects have been explained in the past (Clee & Wicklund, 1980; Dillard & Shen, 2005; Mazis, Settle, & Leslie, 1973). However, this and other frameworks may not explain these deviance phenomena in the way that attributional processes can (Conway & Schaller, 2005). Thus, a new mechanism is needed. This study builds on Attribution Theory to provide a better understanding of how and why consumers respond to government regulations, relative to corporate self-regulations. It is hypothesized that attributions of responsibility, to the company, for poor nutritional meals, decrease when a

toy ban is issued by the policy makers. Specifically, when legislators decide to withdraw free toys with food products that fail to meet certain nutritional guidelines, parents are likely to feel more responsible for their meal selections, regardless of their nutritional content. Consequently, they are expected to express more positive attitudes and behavioral intentions toward these products. On contrary, when the same initiative comes from the corporation, parents may share some of the responsibility for their meal choices with the food marketer; this is likely to trigger lower ratings of poor nutritional food products.

Food marketers have responded to childhood obesity concerns by implementing their own self-regulatory actions, such as modifying their promotional practices or eliminating advertising to children (Quilliam, 2008). Food marketers have, in fact, adopted new strategies for marketing to children in both traditional and online settings. A recent example is McDonald's announcement of its plans to restructure its Happy Meals by adding more nutritious items (McDonald's, 2011). A more radical corporate initiative was taken by Kellogg's, which pledged to eliminate advertising, of products that do not meet specific nutritional requirements, to children (Martin, 2007; Quilliam, 2008).

In response to public and regulators' pressures, the food industry has taken various steps to remedy the problem of advertising to children via emerging media, as well. Numerous products promoted online are not consistent with nutritional standards for a healthy diet, which raises concerns because 71 % of children between 8 and 14 years of age visit the Internet at least once a week and spend on average 19 hours online each month (Olsen, 2007). Food companies have thus pledged to promote more healthful dietary messages that encourage healthful lifestyles and good nutrition, in both traditional

and new media (Moore & Rideout, 2007). Some of them have self-imposed limitations on advertising messages, including limits on poor nutritional product use in advergames (Moore & Rideout, 2007; Quilliam et al., 2011). In sum, self-regulatory actions such as the elimination of poor nutritional food products from free online interactive games (i.e., advergames) and/or the incorporation of healthful lifestyle messages into these advergames have been considered by food corporations (Council of Better Business Bureaus [CBBB], 2006).

Consumers may not perceive corporate actions as sincere and truly targeting societal benefits; thus, their distrust of marketer's initiatives reflects their skepticism (Forehand & Grier, 2003). Webb and Mohr (1998), in fact, illustrated that individuals had reservations with regard to a company's cause-related marketing; these reservations involved a lack of trust of the firm, stemming from their disbelief with regard to the actual donation to a non-profit organization, the firm's motives, and its real intentions (i.e., truly caring about the cause or improving profits). Overall, consumers may have little confidence in businesses (Ellen, Webb, & Mohr, 2006, p. 148) and it is fundamental that firms discover the favorable corporate associations that make the company to appear as a "good citizen." This is critical because, along with consumer advocacy groups and regulators, parents believe that food marketing has a considerable impact on children's food selections, and ultimately on the obesity issue (e.g., Quilliam, 2008; Quilliam et al., 2011). Marketers need to understand the way that consumers interpret information, along with companies' actions (Brown & Dacin, 1997).

Considering increased litigation against food marketers, understanding how consumers take personal responsibility, or ascribe blame to companies, for negative

product outcomes, is particularly important. This is especially critical when companies participate in various forms of corporate social responsibility that may convey high commitments to combat a major social issue such as childhood obesity (e.g., elimination of advertising to children) or low commitments to address this illness (e.g., specific product advertising approach) (Quilliam, 2008).

Building on Attribution Theory, this dissertation proposes a model based on a psychological mechanism that explains consumers' reactions to corporate social responsibility (CSR) as it relates to food marketing communications to children. It is theorized and tested that socially responsible corporate actions, such as the elimination of traditional and online advertising of unhealthy products, may actually decrease consumers' attributions of corporate blame for a negative product outcome (e.g., poor-nutritional product); this enhances company evaluations and the likelihood of future purchase intentions from the company. Hence, this study extends current research on corporate social responsibility by bringing the areas of traditional and online food advertising to children to the corporate social responsibility literature. In addition, the proposed model is intended to help advance knowledge of the psychological mechanism that explains the effects of CSR associations on consumer evaluative responses.

Summarizing, this dissertation uses the framework of Attribution Theory to better understand the impact of government regulations and corporate social responsibility on consumers' attitudes and their subsequent behaviors. A series of studies is developed, which captures the effects of regulations and corporate actions on consumers' responses, while examining the mediating role of consumers' attributions of responsibility.

## Chapter 2

### Literature Review

The following section reviews the literature on government regulations and corporate social responsibility. Policy initiatives and corporate actions to combat major social issues, such as juvenile obesity, are examined from consumer behavior lenses. The theoretical and practical gaps that led to the current research are further highlighted.

#### **Government Regulations**

Government interventions with regard to major societal issues can take various forms, such as product packaging warnings, information labels, bans (e.g., Buschman, 1998; Buschman & Stack, 1996; Ringold, 2002; Snyder & Blood, 1992). Two health problems in which governments around the world have intervened are smoking and obesity. Marks (1982) identified three policies pertaining to tobacco cigarettes that are commonly employed globally - advertising ban being one. A justification for banning tobacco advertising was the belief that it would lead to a decrease in smoking by the targeted consumers (Boddewyn, 1994).

**Government initiatives to combat smoking.** Governments around the world attempted to control smoking by using different restrictive measures (Goel & Nelson, 2006). Almost twenty resolutions to control tobacco consumption have been initiated by the World Health Assembly; moreover, the World Health Organization negotiated an international treaty for worldwide restrictions on cigarette marketing (Goel & Nelson, 2006). At the state level in the US, there have been laws restricting tobacco sales to young consumers, tobacco advertising, and marketing (CDC, 1995; Fishman, Alexander, Gates, Malarcher, Schooley, & Shelton, 1996). These restrictions include setting a

minimum age for tobacco purchase, bans on cigarette vending machines, and restrictions on smoking in public buildings and restaurants (Unger, Rohrbach, Howard, Cruz, Johnson, & Chen, 1999).

Research on anti-tobacco policies has shown mixed results with regard to changes in consumers' smoking behaviors. For instance, anti-tobacco policies and restrictions on smoking in public places resulted in lower rates of smoking among adolescents (Chaloupka & Wechsler, 1997; Forster, Murray, Wolfson, Blaine, Wagenaar, & Hennrikus, 1998). A study conducted from 1970 to 1986 in 33 European countries showed that the greater the extent to which government controls tobacco advertising, the greater the annual decrease in tobacco consumption (Toxic Substances Board, 1989). When a ban on tobacco advertisements was introduced in Norway and Finland in the late 1970's, tobacco consumption among adolescents significantly decreased (Willemsen & de Zwart, 1999).

However, anti-tobacco policies have also caused reactance (Unger et al., 1999). Specifically, adolescent smokers considered government interventions as interfering with their personal choice and restricting their freedom (Jeffery, Forster, Schmid, McBride, Rooney, & Pirie, 1990). These policies were perceived to interfere with individuals' personal rights to smoke (Unger et al., 1999); consequently, smoking among adolescents became more attractive because of its forbidden nature. As Unger et al. stated (1999, p. 752), adolescents may engage in smoking "to reassert their personal autonomy."

**Government and corporate initiatives toward childhood obesity.** Childhood obesity has emerged as one of the major public health threats; its long-term health consequences being well documented (Daniels, 2006). Thus, the U.S. government and

corporations alike have approached this societal issue from various angles. Fast food outlets have been under fire from several consumer groups and numerous other public institutions; rising obesity rates among children have led many to blame fast food companies for providing meals that fail to meet basic nutritional standards for fat, calories, and sodium (Bowman et al., 2004; Paeratakul et al., 2003). Criticism of food advertising and the way that food is marketed to children has also emerged from parents, politicians, and consumer advocates (Martin, 2006). For instance, Internet marketing of food products that contain high levels of sugar, salt, and fat has been condemned by parents and child advocates (Hellmich, 2006). As a result, some regulatory agencies are seeking legislation to restrict certain marketing practices by fast food outlets.

In response to calls for government intervention, the Center for Science in the Public Interest required in 2003 that online food marketing to children to be banned (Quilliam et al., 2011; Teinowitz, 2003). Another initiative is Section 4205 of the Patient Protection and Affordable Care Act, which was signed into law on March 23, 2010 and establishes requirements for nutrition labeling of standard menu items for chain retail food establishments and chain vending machine operators (United States Department of Health and Human Services, Food and Drug Administration, 2010). Advocacy groups and government officials have further called for the intervention of governmental institutions to ban unhealthy foods from schools and the popular toys linked to non-nutritious food products (Quilliam et al, 2011; Teinowitz, 2005).

A striking and more recent regulation against food marketing practices is the San Francisco's Board of Supervisors ordinance that requires various meals targeted to children to meet certain nutritional guidelines if a free toy is included with the food



purchase. Specifically, a restaurant may not offer an incentive item (e.g., toy, game, trading card, etc.) linked to the purchase of a meal if this item has more than 600 calories, 640 mg of sodium, 35 % of total calories from fat, 10 % of total calories from saturated fats, and more than 0.5 grams of trans fat (Committee/Board of Supervisors, 2010); additionally, a restaurant may not provide an incentive item with the purchase of a meal, unless this meal includes fruits and vegetables (i.e., 0.5 cups or more of fruits and 0.75 cups or more of vegetables for a meal). Lastly, an incentive item cannot be provided with a beverage, if this beverage includes excessive fat (i.e., more than 35 % of total calories from fat) and excessive sugars (i.e., more than 10 % of calories from added caloric sweeteners). This ordinance took effect in December 2011 and is similar to a law passed earlier in 2010, in Santa Clara, which required that restaurant children's meals meet certain nutritional standards before they could be sold with free toys (Baertlein, 2010).

The San Francisco regulation is intended to “improve the health of children and adolescents in San Francisco by setting healthy nutritional standards for children's meals accompanied by toys or other incentive items” (Committee/Board of Supervisors, 2010, p. 2). This initiative aims to help parents change their attitudes toward poor-nutritional products.

It is generally assumed that parents are concerned about the negative effects of food advertising on their children (Grossbart & Crosby, 1984); however, there are individuals who do not necessarily embrace governmental control for advertising (Feldman, Wolf, & Warmouth, 1977; Grossbart & Crosby, 1984). More recently, it was suggested that obesity is perceived as one's personal responsibility (Niederdeppe, Shapiro, & Porticella, 2011; Oliver & Lee, 2005), which may explain the lack of public support of various

policies intended to fight this illness (Barry, Brescoll, Brownell & Schlesinger, 2009; Niederdeppe et al., 2011; Oliver & Lee, 2005). Consequently, public opinion about obesity-related health policies are mixed (Zernicke, 2003) and it is uncertain whether these policies can actually trigger attitudinal and behavioral changes. Based on this review and the mixed results of research related to restrictive policies, the effects of banning promotional activities (i.e., toy premiums) with meals that do not meet certain nutritional guidelines is questionable. On one hand, policies such as this could raise awareness about the negative effects of unhealthy food products. On the other hand, such policies could challenge parental responsibility for their children's diets, which might result in parents' defiance of this legislation.

Despite numerous calls for substantial involvement by government at all levels (Koplan, Liverman, & Kraak, 2005; Levi, Gadola, & Segal, 2007; Levi, Segal, & Juliano, 2006; Nestle & Jacobson, 2000) and intense activity in this matter, reports suggest that obesity policies are failing in America (Hearne, Segal, Unruh, Earls, & Smolarcik, 2004; Levi et al., 2007; Levi et al., 2006). An explanation could be that lawmakers have had scarce research available to them with regard to which policies are likely to be more effective in combating childhood obesity (Simpson, Alendy, Cooper, & Gunther Murphy, 2008). Policies aimed at reducing obesity levels need to be supported by the public in order to have effective impacts. Some regulations intended to minimize obesity levels however may encounter public opposition (Niederdeppe, Robert, & Kindig, 2011) and ultimately yield unexpected consequences. Public opinion, with regard to obesity policies, may be driven by the view that obesity is merely a personal matter and responsibility. While obesity is a well-recognized social issue, people tend to attribute it

to individuals' responsibility and consequently, there may be limited support for eliminating food advertisements and other policies that are intended to protect children (Oliver & Lee, 2005).

There have been numerous calls for government intervention by consumer advocates, academicians, and politicians (e.g., Hellmich, 2006; Martin, 2006; Quilliam et al., 2011; Teinowitz, 2005); nonetheless, public opinion about obesity policies is mixed (Zernicke, 2003). Consequently, it is imperative to understand how parents and caregivers respond to government regulations and, importantly, the mechanism through which these responses occur.

In conjunction with government regulations, food marketers have responded with self-regulatory actions. For instance, Kraft has pledged to eliminate its advertising to children ages 6 through 12, of foods that do not meet certain nutritional standards ("Kraft," 2005) and Jack in the Box has eliminated toys from its children's meals (Morrison, 2011). Despite these recent initiatives, there is still a lack of healthy food advertising and an abundant use of licensed characters with unhealthy food products (Kunkel et al., 2009). Moreover, there is a reduced number of companies that have enacted plans to eliminate the promotion of unhealthy food products to children, which may be explained by the lack of research with regard to consumers' responses to such initiatives. One study has, in fact, demonstrated the positive outcomes associated with the elimination of advertising to children strategy (Quilliam, 2008). These positive outcomes may translate to consumer credibility, and positive attitudes, toward the company. Although these findings may encourage food marketers to withdraw their promotion of those food products that fail to meet certain nutritional standards for a healthy diet, it is

unknown whether corporations can actually change consumers' attitudes and behavior toward these products.

In the midst of all these concerns about, and initiatives against, childhood obesity, it appears that one important element has been largely overlooked. That is, obesity is simply the consequence of consumers' free choices (Daynard, 2003) and similarly, childhood obesity is the result of parents' personal decisions and choices related to their children's lifestyle and diets. Past research, in fact, reported that restrictive measures, such as bans are likely to threaten individuals' freedom of choice and, as a result, the forbidden choice becomes more attractive, as people attempt to reinstate the lost freedom (Clee and Wicklund, 1980; Mazis et al., 1973). Moreover, an authority's command was found to trigger individuals' deviant decision making (e.g., Conway and Schaller, 2005).

Although parents may address critics toward food marketers and their advertising to children, they do not necessarily favor the government's intervention (Feldman et al., 1977; Grossbart & Crosby, 1984). As such, legislations, such as the San Francisco and Santa Clara ordinances, may fail to produce the desired effects. Importantly, research has found that advertising strategies that incorporated health claims were more successful in educating the public, when compared to government initiatives (Calfee, 1988; Quilliam, 2008).

Lastly, little is known about how best to address a major social issue, such as juvenile obesity. In order to change consumption behaviors, it is first necessary to understand the theoretical underpinnings driving consumers' attitudes and behaviors. The fact that childhood obesity is epidemic in the US raises questions about how best to

develop theory and to change attitudes and behaviors, and ultimately to redress this societal problem.

Reactance theory has been used to explain individuals' unintended reactions to government regulations (e.g., Clee & Wicklund, 1980; Mazis et al., 1973; Ringold, 2002); however, this framework may not fully explain individuals' responses to recent governmental restrictions of food advertising to children. Building on Attribution Theory, this research proposes a new psychological mechanism to explain the effects of government regulations on consumers' attitudes toward the consumption of poor-nutritional products. The proposed framework provides a thorough understanding of how and why consumers respond to government regulations relative to corporate self-regulations. Existing consumer research on the impact of regulations on attitudes and subsequent behavior is thus extended by employing an alternative theory to explain consumer responses to such initiatives.

Summarizing the literature on government regulations, it is unclear how these governmental actions, relative to corporate initiatives, that address childhood obesity, essentially impact consumers. Can one measure be more effective relative to another and most importantly, what would be the underlying mechanism that could explain this effect? Thus, this dissertation aims to provide a thorough understanding of how and why consumers respond to government regulations relative to corporate self-regulations intended to change parents' attitudes and subsequent behavior toward poor-nutritional food products. In addition, this research responds to increased calls for further research on the industry self-regulation (i.e., self-limitation on advertising) and public policy (i.e.,

advertising bans) (Mishra, 2004; Quilliam, 2008; Teinowitz, 2005) as actions to combat childhood obesity.

### **Corporate Social Responsibility**

Corporate social responsibility has been identified as “the managerial obligation to take action to protect and improve both the welfare of society as a whole and the interest of organizations” (Davis & Blomstrom, 1975, p. 6). Furthermore, CSR has been conceptualized as a “company’s commitment to minimizing or eliminating any harmful effects and maximizing its long-run beneficial impact on society” (Mohr, Webb, & Harris, 2001, p.47).

A socially responsible behavior has been shown to provide value to the company and its products from numerous perspectives. For instance, companies have become socially responsible to redeem their reputation challenged by various well-known corporate frauds (Dawkins, 2005; Mohr & Webb, 2005) and to gain a competitive advantage and improve their stock market performance (Bansal & Roth, 2000; Drumwright, 1994, 1996; Russo & Fouts, 1997; Waddock & Smith, 2000). In the marketing context, economic benefits from a firm’s CSR have been linked to consumers’ brand recommendations, positive evaluations of firms’ products and brand, and brand choice (e.g., Brown & Dacin, 1997; Handelman & Arnold, 1999; Klein & Dawar, 2004; Osterhus, 1997; Sen & Bhattacharya, 2001).

The positive impact of marketing activities with a social dimension, which are indicative of CSR (Brown & Dacin, 1997; Robin & Reidenbach, 1987), has been long documented (Singhapakdi, Kraft, Vitell, & Rallapalli, 1995). For instance, Brown and Dacin (1997) showed that socially responsible companies are subject to more favorable

corporate assessments on behalf of their consumers and the firms' products are better evaluated (Handelman & Arnold, 1999). Ellen, Mohr, and Webb (2000) also reported a positive relationship between firms' CSR actions and consumers' attitudes toward the company. Because CSR is an important tool for their overall image, companies such as Kraft, Ford, and BP allocate considerable financial resources and efforts to improve their socially responsible activities (Gürhan-Canli & Batra, 2004). Consumers value firms' initiatives to become socially responsible (Sen & Bhattacharya, 2001); this value may translate to positive product and company evaluations, and enhanced purchase intentions.

Corporate social responsibility activities, in practice and research, can include numerous initiatives (Peloza & Shang, 2011). Some of these actions, toward which consumers' responses were examined are: sponsorships and cause-related marketing (e.g., Barone, Miyazaki, & Taylor, 2000; Deshpande & Hitchon, 2002; Ellen et al., 2006; Mohr & Webb, 2005; Rifon, Choi, Trimble, & Li, 2004; Simmons & Becker-Olsen, 2006; Trimble & Rifon, 2006; Varadarajan & Menon, 1988; Webb & Mohr, 1998), corporate philanthropy, and environmental marketing (Davis, 1994; D'Souza & Taghian, 2005; Mohr, Eroğlu, & Ellen, 1998; Schwepker & Cornwell, 1991).

In a systematic review of corporate social responsibility, Peloza and Shang (2011) illustrated three groups of socially responsible behavior: philanthropy, business practices, and product-related. Philanthropy is the most common CSR initiative; cause-related marketing is a form of philanthropy that refers to a charity donation linked to a commercial exchange. Donations, which are not tied to a company's sales, promotion of a social issue, and event sponsorships are other forms of corporate philanthropy (Peloza and Shang, 2011). In their review of CSR activities, these authors mentioned organic

products and product's biodegradability among the product-related features which comprise the third category of CSR initiatives. The next most common category is the business practice of the companies. Environmental protection (e.g., Berens, van Riel, & van Rekom, 2007; Chitra, 2007; Klein & Dawar, 2004; Laroche, Bergeron, & Barbaro-Foleo, 2001; Russel & Russell, 2010), ethical behavior (e.g., Creyer & Ross, 1997), and socially responsible behavior (e.g., De Matos & Rossi, 2006; Narwal & Sharma, 2008) represent some popular forms of socially responsible business practices.

**Corporate social responsibility initiatives related to childhood obesity.** Food corporations have recently adopted various socially responsible activities to address some major societal problems such as obesity and its health-related issues. The link between traditional or online advertising to children and increased consumption of poor-nutritional products represents one of the most important challenges that food marketers face. Thus, new advertising tactics have emerged with the intention to draw attention towards more socially responsible corporations. Specifically, food marketers have modified their promotional practices, eliminated advertising to children, and developed labeling programs (Quilliam, 2008).

In their efforts to improve the corporation's reputation, companies such as McDonald's and Coca-Cola have tried to promote healthier product innovations and healthy lifestyles in general. Nonetheless, more healthful products, such as McDonald's Corp.'s McLean Burger, Coca-Cola's low-calorie, low-sugar C2 Cola, General Mills Inc.'s Yoplait Healthy Heart Yogurt, and Kellogg Co.'s Tiger Power low-sugar, whole-grain cereal "fell far short of company expectations despite major expenditures on their launches" (Seiders & Berry, 2007, p. 16). Yet, as recently as August 2011, McDonald's



announced new plans to restructure its Happy Meals by adding fruits, downsizing the fries, and reducing calories by 20 % and sodium by 15 % (McDonald's, 2011). The company's long-term plan, which involves commitments to offer improved nutrition choices, was immediately followed by criticism and skepticism. Its CSR actions are rather considered dust in consumers' eyes because the company offers customers improved nutrition choices instead of a considerable healthy change (Nestle, 2011). Because McDonald's continues to advertise food products, which are high in fat, sugar, calories, and sodium, they may not be perceived as being seriously concerned about childhood obesity (Nestle, 2011).

Another business practice of socially responsible companies is the elimination of food advertising to children. For instance, Kraft decided to stop promoting low-nutritional products in television programs targeted to children between 6 and 12 years old; the company also restated that it will not advertise at all to children under the age 6 ("Kraft", 2005; Quilliam, 2008; Teinowitz, 2005). Kellogg's announced its intentions to remove advertising to children of products that do not meet certain nutritional standards for healthy diets (Martin, 2007; Quilliam, 2008). Finally, Jack in the Box has pulled the toys from its children's meals and added new options (Slosson, 2011); this action is particularly meaningful as parents usually feel that they are "caught between wanting to please their children and making responsible feeding decisions," especially in respect to toy premiums (Pettigrew & Roberts, 2006, p. 67).

Both current business practices - the elimination of food advertising linked to meals that fail to meet certain nutritional standards and the promotion of healthier products may

be perceived as corporations' commitments to be socially responsible. However, the effect of these CSR activities is unknown.

These self-regulatory actions are forms of corporate social responsibility used by firms to consolidate their customer relationship, receive positive consumer responses, and ultimately to gain a competitive advantage. It is clear that food marketers have taken steps to address juvenile obesity; yet, research on CSR and consumers have generally concentrated on cause-related marketing, corporate philanthropy, and environmental responsibility (Ellen et al., 2006). Hence, little is known about consumers' reactions to corporations' socially responsible behavior, especially in food contexts (Quilliam, 2008).

Summarizing the literature on corporate social responsibility, it is clear that marketing researchers and practitioners face substantial challenges in addressing how major social issues shape marketing theory and practice. Food marketers face regulatory changes that may alter the way that firms design and deliver their products and services, and communicate with consumers. While consumers generally recognize a firm as being more responsible if it intervenes prior to government agencies and CSR can mitigate the negative impact of a product failure, it is uncertain which corporate social responsibility activities function in this way (Siomkos & Kurzbard, 1994). Lastly, it appears that there is a gap in the CSR literature with regard to how and why consumers respond to certain CSR actions (Sen & Bhattacharya, 2001).

This dissertation builds on attribution theory to provide a better understanding of how and why consumers respond to various forms of corporate social responsibility intended to combat childhood obesity.

## **Chapter 3**

### **Conceptual Framework**

The conceptual framework underlying this dissertation represents an extension of attributional judgments, which yields novel hypotheses about conditions under which the perceptions of a negative product outcome produces or does not produce attributions of blame toward the company. These attributions impact consumers' attitudes, which in turn affect their behavior (Ajzen & Fishbein, 1973). A series of experimental studies is developed in which hypotheses about the consequences of government regulations and corporate social responsibility are derived and tested. The mediation role of attributional judgments represents the foundation of these consequences.

The theoretical rationale for the studies proposed and tested here is Attribution Theory (Kelley, 1973). When people strive to find causes of their behavior, they may be subject to self-serving bias. This attributional bias shows that individuals tend to blame others for negative outcomes and take personal responsibility for positive results (Knee & Zuckerman, 1996; Pyszczynski & Greenberg, 1987; Ross & Fletcher, 1985; Zuckerman, 1979). The work of attribution theorists also illustrates that negative product outcomes are typically attributed to the companies and can severely impact corporate image (Jolly & Mowen, 1985). By the same token, parents may have the tendency to blame food marketers for their children's poor nutritional meals and these perceptions of responsibility typically trigger negative attitudes toward companies and their products. Nevertheless, it is proposed here that various contextual cues are likely to mitigate this self-serving bias; in other words, some circumstances may produce opposite attributional responses. Thus, building on Attribution Theory, it is hypothesized that government

regulations and corporate social responsibility may enhance consumers' attitudes toward food companies and their products. This rationale is based on the premise that these initiatives, intended to fight childhood obesity, may trigger less attributions of blame toward food marketers for poor-nutritional meals and more parental responsibility.

### **Attribution Theory**

Attribution theory deals with the common sense way to answer *why* questions (Jaspars, Hewstone, & Fincham, 1983) and is concerned with people's perceptions of causality, their judgment of why a particular event happened (Weiner, 1972). In order to understand why individuals behave in certain ways, researchers need to comprehend whether the locus of causality for an event is external (i.e., others caused the event) or internal to the individual (i.e., the person caused the event) (Fiske & Taylor, 1991).

Attribution theory addresses how people explain their own behavior, the way that individuals arrive at causal inferences, what kind of inferences they make, and the consequences of these inferences (Folkes, 1988). Generally, research on attribution theory is divided between studies that focus on antecedents of causal inferences (i.e., information, beliefs, and motivation) and studies that examine consequences of attributions (i.e., affect, behavior, and expectancy) (Kelley & Michella, 1980; Folkes, 1988). The first stream of research involves the systematic study of those factors that determine the individual to attribute the event to a certain cause whereas the second category concerns the consequences of making a particular attribution (Kelley & Michella, 1980). These researchers further emphasize the mediating role of attributions between factors of the causal inferences and their consequences. Likewise, this

dissertation will focus on the antecedents and consequences of attributions of responsibility, highlighting the mediating role of these causal inferences.

**Attributions and consumer behavior.** Attribution research, in the field of consumer behavior, has focused either on the determinants, or consequences, of consumers' causal ascriptions. Researchers have examined the way that consumers arrive at attributions, or the attitudes resulting from these causal inferences (Folkes, 1988). It was documented that attributions significantly impact the way that consumers communicate (Curren & Folkes, 1987; Folkes, Koletsky, & Graham, 1987; Richins, 1983) and their satisfaction or dissatisfaction (Oliver & DeSarbo, 1988). Finally, attribution studies have analyzed causal inferences about consumers' own behavior, as well as product failure or success (Folkes, 1988). When consumers purchase products or services, they encounter either a positive or a negative outcome; they further engage in attributional conclusions with regard to the reason of that outcome, which then impacts their affective and behavioral responses (Weiner, 2000).

The fact that individuals' feelings and behavior are influenced by their causal analysis of various events or outcomes is long documented in socio-psychological studies (e.g., Heider, 1958; Jones, Kanouse, Kelley, Nesbitt, Valins, & Weiner, 1972). Consumer behavior researchers have also demonstrated that the kind of attributions people make impacts both their affective and behavioral responses (e.g., Bitner, 1990; Folkes, 1984, 1988; Folkes et al., 1987; Valle & Krishnan, 1978; Weiner, 1985). In sum, Attribution Theory is relevant to the understanding of consumer behavior as it views individuals as "rational information processors whose actions are influenced by their causal inferences" (Folkes, 1984, p. 398). Nevertheless, despite its importance to the field of consumer

behavior, Attribution Theory has been, to a certain extent, absent in consumer psychology (Weiner, 2000).

Researchers have generally predicted consumer attitudes by examining causal dimensions such as locus of causality, controllability, and stability (Curren & Folkes, 1987). For instance, locus of causality determines who is responsible for an outcome such as product failure, control refers to whether the responsible party had control over the cause of the outcome, and lastly, stability determines whether the cause is likely to happen again (Bitner, 1990). These causal inferences determine attributions of responsibility (i.e., whether the consumer or the firm is responsible for a certain outcome), which are particularly relevant when examining consumer postconsumption reactions (Weiner, 1980, 1985, 2000).

Locus of causality, controllability, and stability have been extensively used in marketing studies (Tsiros, Mittal, & Ross, 2004). Therefore, this dissertation focuses on the mediation role of attributions of responsibility rather than how these attributions are shaped; consequently, while the importance of the three causal dimensions is acknowledged, the attention will be given to attributions of responsibility, per se, or the way that consumers assign blame for a negative product outcome, to which they bring their own contribution.

**Antecedents and consequences of attributions of responsibility.** Research on consumer behavior has focused mainly on evaluative and behavioral consequences rather than informational antecedents of causal inferences (e.g., Folkes, 1984; Folkes et al., 1987; Folkes & Kotsos, 1986). For instance, marketing researchers have used Attribution Theory to examine the way that individuals make causal inferences and how these

attributions impact their attitudes (Swanson & Kelley, 2001). There are, in fact, numerous studies that provide compelling evidence for the impact of causal inferences on consumers' evaluative and behavioral intentions (e.g., Folkes, 1984; Folkes & Kotsos, 1986; Jorgensen, 1996).

The relationship between determinants of attributions and causal inferences is also relevant, as certain information about behavior and the circumstances in which it occurs are used by an individual to infer the behavior's cause (Kelley & Michela, 1980). Despite its importance, there is limited research on the antecedents of causal inferences in the marketing field (Griffin, Babin, & Attaway, 1996; Klein & Dawar, 2004). This dissertation addresses this gap by examining the impact of varying causal antecedents - corporate social responsibility and government regulations – on consumers' responses, through their attributions of responsibility, which fundamentally captures both the antecedents and consequences of attributions.

Consumers rely on information beyond product characteristics, when constructing their attributions (Aaker, 1996; Folkes et al., 1987; Klein & Dawar, 2004). For instance, if CSR associations have a particular relevance for consumers, they use such information to build their attributions (Klein & Dawar, 2004). Likewise, in constructing their attributions of responsibility consumers may rely on information about government regulations, provided that high importance is placed on these issues.

Klein and Dawar (2004) demonstrated that CSR beliefs (e.g., positive vs. negative CSR) moderate consumers' perceptions of the causal dimensions of attributions (i.e., locus, controllability, stability). In other words, for those firms who enjoyed a positive corporate social responsibility association, the cause of the product-harm crisis was

attributed as more external to the firm, less stable and less controllable by the firm, when compared to those companies that did not enjoy a positive CSR. This dissertation differs from the previous research as its interest lies in understanding the direct effects of information, such as corporate social responsibility and government regulations, on attributions of blame. In addition, attributions of responsibility are operationalized as the extent to which consumers take personal responsibility for negative product outcomes. Consequently, this research highlights a new role of the government regulation and corporate social responsibility constructs, namely as moderators of consumers' self-serving bias, a psychological response that has been neglected in the marketing literature (Bendapudi and Leone, 2003).

By capturing both the antecedents and consequences of attributions of blame, a conceptual framework is developed where government regulations and CSR are believed to decrease individuals' tendencies to blame the company for negative product outcomes (i.e., meals that fail to meet set levels of calories, fat, sugar, and sodium). These attributions of responsibility are expected to impact consumers' attitudes, which in turn influence their behavior.

### **Negative Product Outcomes and Attributions**

In commercial contexts, consumers generally come upon two outcomes: positive (i.e., product success) and negative (i.e., product failure); they afterward engage in attributional conclusions regarding the reason why the outcome is positive or negative and their future attitudes and behavior are influenced by these conclusions (Weiner, 2000). Individuals engage in causal attributions mostly when they encounter product failure or a negative outcome (Weiner, 2000). Negative information “instinctively



motivates relatively high attributional activity” due to its potential threat to individuals’ welfare (Griffin et al., 1996). This is especially important from a marketing standpoint considering that these attribution processes affect consumer responses to the failure (Mattila & Patterson, 2004; Van Raaij & Pruyn, 1998). Several researchers have long predicted consumer responses to a negative outcome, such as product failure, using Attribution Theory (e.g., Folkes, 1984; Folkes et al., 1987; Folkes & Kotsos, 1986; Kalamas, Laroche, & Makdessian, 2008; Klein & Dawar, 2004). Consequently, the focus of this study will be on consumers’ attributions of responsibility for a negative product outcome, which refers to those poor-nutritional meal choices or meals that fail to meet basic nutritional standards for fat, sodium, sugar, and calories.

As reviewed earlier, consumers are subject to self-serving bias or have the tendency to take credit for positive results and ascribe blame to the firm for a negative outcome (Curren, Folkes, & Steckel, 1992; Folkes, 1988). This self-serving bias has also been demonstrated in co-production contexts, which essentially illustrates that customers are less likely to take responsibility for a negative product outcome despite the fact that they participate in the production; this in turn negatively affects their satisfaction with the firm (Bendapudi & Leone, 2003). In the current context, parents may not be as eager to share responsibility with the food company when they make poor-nutritional meal choices for their children and these attributions of blame may have a negative impact on consumers’ attitudes (e.g., product satisfaction, satisfaction with the company). This research, however proposes that government regulations and corporate social responsibility are likely to moderate individuals’ tendency to blame the company for the nutritional value of these meal choices; therefore, more positive attitudes and behavior toward the firm and

its products are expected. Finally, a negative product outcome will be operationalized as children's meals that fail to meet certain standards for fat, sodium, sugar, and calories.

### **Attributions, Product Satisfaction, and Company Evaluations**

Attributions of responsibility for a negative outcome are particularly important as they affect consumers' cognitive and affective reactions toward companies and their products/services (Griffin et al., 1996; Richins, 1984; 1985). Griffin et al. (1996), in fact, suggested that consumers' attributions of blame or credit toward companies directly impact their satisfaction or dissatisfaction.

When the blame for a negative encounter is attributed externally (i.e., responsibility to the firm), consumers are likely to have negative attitudes toward the company and its products/services (Folkes, 1984). Along the same lines, more product dissatisfaction was triggered by those who made external attributions (i.e., seller-related inferences) than those individuals who reported internal causal inferences when a problem happened (Richins, 1983, 1985). When a product failure was attributed to the firm, consumers were less satisfied with the products (Oliver & DeSarbo, 1988). In a more recent study, Tsiros et al. (2004) confirmed the direct effects of attributions of responsibility on consumers' satisfaction. In sum, consumers' attributions of blame have a direct impact on their product satisfaction; as well, the higher the blame to the company for a negative product outcome, the lesser consumers' satisfaction.

Previous empirical research further supports the significant impact of responsibility on consumers' attitudes toward a company. For instance, Mowen, Jolly, & Nickell (1981) argued that the company's responsibility for a defect negatively impacted consumers' impressions of the firm. Griffin, Babin, & Attaway (1991) evidenced a significant impact

of responsibility on consumers' attitudes toward the firm, in fast food settings; in particular, when consumers did not perceive the companies as responsible for food poisoning, their attitudes toward the company were more positive. That the more responsible a company is judged to be for a negative outcome, the more negative consumer attitudes will be toward the firm, was further documented by Jorgensen (1996).

Klein and Dawar (2004) also analyzed consumers' attributions of blame about product-harm crises and concluded that, when the company is held responsible for these outcomes, a strong negative effect on brand evaluations occurs. In a more recent study, it was argued that attributing the blame for service failure to the firm triggered negative service evaluations, lower service satisfaction, and negative repurchase intentions (Kalamas et al., 2008).

Combining these streams of research on the impact of attributions of responsibility on consumers' attitudes, it is hypothesized that the higher the blame to the company for a negative product outcome (e.g., poor-nutritional meals), the lesser the product and company satisfaction. In other words, when consumers perceive themselves as more responsible for their poor-nutritional meal choices, their product and company ratings are potentially enhanced. This is especially true considering that people tend to be happier, more satisfied when they feel responsible for their decisions (Oliver & DeSarbo, 1988; Folkes, 1984).

### **Government Regulations and Attributions of Responsibility**

Premiums are usually used to influence children's tastes and desires (Kraak & Pelletier, 1998). This was demonstrated in the late 1970's, when Atkin (1978) showed that half the children who requested cereal purchases to their parents were influenced by premiums

linked to this product. Unfortunately, these premiums (e.g., toys, games, admission tickets, etc.) have been long linked to children's intake of high-fat, -sugar, and -calories meals. Therefore, various initiatives at the state and federal levels have been considered to address this issue. In an effort to improve the health of children and change parental attitudes and behavior toward poor-nutritional food products, some counties in California have banned incentive items provided with the purchase of a meal that does not meet the nutritional requirements specified in their ordinances. In the current context, a toy premium ban will be denoted by the government's initiative to ban the toys linked to children's meals that fail to meet certain standards for calories, fat, sodium, and sugar.

Food marketers have also engaged in self-regulatory actions, in an effort to address childhood obesity. Some examples have been mentioned earlier; in particular, Kraft eliminated advertising, to children ages 6 through 12, of food products that fail to meet certain nutritional guidelines and Jack in the Box decided to remove its toys from the children's meals ("Kraft," 2005; Morrison, 2011). Thus, corporate self-regulation in this study will refer to a company's decision to eliminate free toys with those children's meals that exceed certain levels of calories, sodium, fat, and sugar.

#### **The effects of government regulations on attributions of responsibility.**

Generally, consumer protection regulations, if perceived as "paternalistic and usurping one's freedom to make his own mistakes" are likely to lead to unexpected reactance in those people whom these regulations are meant to protect (Clee & Wicklund, 1980, p. 403). People's reactions to eliminated behavioral or decisional freedom have been explained by the social psychological reactance theory (Brehm, 1966). "Freedom of behavior is a persuasive and important aspect of human life;" people usually feel that

they are free to engage in various behaviors and that they can also freely choose among these behaviors (Brehm, 1966, p. 377). As a result, when a person's behavioral freedom is reduced, or threatened with reduction, individuals will become "motivationally aroused;" in other words, when people feel that their autonomy is endangered, they engage in "psychological reactance" (i.e., people's attitudes and behaviors are most likely directed against any further loss of freedom or toward the restoration of the liberty that has been lost) (Brehm, 1966, p. 378). It eventually illustrates that, in the presence of various government regulations, which endanger behavioral freedom, individuals tend to engage in the threatened behavior as it becomes more attractive (Clee & Wicklund, 1980).

In the consumer behavior context, Mazis et al. (1973) analyzed consumers' reactions to a Miami ordinance, which banned the sale of high-phosphate detergents and found that Miami respondents had more positive ratings for these products. In a reactance framework, this regulation threatens individuals' choice alternatives and is likely to result in positive evaluations, of the banned product, and attempts to reinstate the freedom (Clee & Wicklund, 1980). People's freedom of choice is ultimately "a valued psychological commodity" and so, in a reactance framework, individuals will deviate from what is expected, in order to reaffirm their liberty to choose (Convey & Schaller, 2005, p. 312). In sum, earlier studies used Reactance Theory to explain consumer deviance as a reaction to various governmental policies (Bushman, 1998; Jeffrey et al., 1990; Unger et al., 1999).

Parallels to these reactions may be found in parents' responses to recent government actions to fight childhood obesity. Reactance Theory, however might not fully explain

consumer behavior since consumers do not necessarily lose their freedom of choice when a toy premium ban occurs. Parents still have control over their children's meal selections; for instance, parents can still buy a Happy Meal that does not meet nutritional standards, although they cannot receive a free toy. Moreover, a reactance mechanism would imply that parents report deviant attitudes toward poor-nutritional products just to react against the aforementioned ban, an explanation hardly acceptable. Therefore, a new psychological mechanism is needed to explain consumers' reactions to government regulations. Attributional processes possibly explain consumers' unexpected attitudes and behavior in ways that Reactance Theory cannot.

When people perceive that behavior is constrained by circumstances that demand compliance, they are less likely to make the expected attributions about that behavior (Fein, 1996; Fein, Hilton, & Miller, 1990). This may be the case as it undermines the psychological power of why that behavior occurred. Similarly, parents may perceive that their food selections are constrained by a toy ban and are less likely to make the expected attributions of responsibility for these choices; in other words, they tend to perceive themselves as being more responsible for their own behavior (i.e., poor-nutritional meal choices they make for their children) and to blame the food marketers less.

According to self-serving bias, parents would normally blame food providers for poor-nutritional product offerings but specific attributional circumstances minimize this bias. The presence of government regulations may create such a circumstance; a toy ban could lead parents to question this responsibility and consequently, may cause them to be less self-serving biased. Thus, they are more likely to assume personal responsibility, for their meal choices, and blame the company less, for the negative outcomes.

Conway and Schaller (2005) used the attribution model to explain how the authority's command led subjects to make deviant decisions. In their research, participants made a decision that deviated from the proposed rule and these outcomes occurred due to the command's impact on attributional inferences. Similarly, the presence of a toy premium ban might trigger unexpected attributions of responsibility for poor-nutritional meal choices. That is, when a toy premium ban is present, consumers may ascribe less responsibility to the company for these products. In support of this view, evidence also suggests that, due to their desire to feel responsible over a specific situation, consumers are motivated to form attributions and, most importantly, to twist their causal inferences (Poon, Hui, & Au, 2004). Moreover, people believe that a major social issue, such as obesity, is mainly the individuals' responsibility (Niederdeppe et al., 2011; Oliver & Lee, 2005). These attributions about obesity are likely to explain the lack of public support for various policies intended to fight this problem (Barry et al., 2009; Niederdeppe et al., 2011; Oliver & Lee, 2005).

People's beliefs that obesity is a personal responsibility may affect parents' attributions of responsibility in the presence of a toy premium ban. Policies related to childhood obesity which undermine parental responsibility may activate beliefs about behavior that further exacerbates this health problem (Blacksher, 2008; Byrne & Hart, 2009; Niederdeppe et al., 2011).

Based on the previous review, it is predicted that a governmental initiative that addresses childhood obesity (i.e., toy premiums ban) may cause less attributions of blame to the firm, for poor-nutritional meals.

H<sub>1a</sub>: When a government regulation (e.g., toy premiums ban) is present, consumers will ascribe less responsibility to the company, for negative product outcomes (e.g., poor-nutritional meals) than when there is no government regulation.

It is further hypothesized that attributions of blame may be minimized in the presence of a government regulation relative to a corporate self-regulation. Relative to the government, parents are likely to feel more responsible for their poor-nutritional meal choices. Cultural values such as responsibility are realized through self-contained individualism, which is the dominant cultural and psychological type in the U.S. and refers to the concept that people see themselves as the causal agents of their actions and personally responsible for their own behavior (Bandura, 1982; Perloff, 1987; Sampson, 1988; Spence, 1985). Due to this self-contained individualism, people's self-reliance and independence are potentially undermined when they receive assistance from others (Sampson, 1988); they are generally more likely to attribute their outcomes to personal actions (Hegtvedt, Thompson, & Cook, 1993).

In the current context, parents are the decision-makers with regard to their children's diets and lifestyle; thus, parental responsibility is likely undermined, when food regulators attempt to help parents change their attitudes and behavior toward unhealthy food products. Therefore, parents are expected to take more personal responsibility, and ascribe less blame to the firm, for poor-nutritional meals. In support of this view, an old study demonstrated that product recalls ordered by the government were not popular when the regulators were perceived to be too involved in consumer protection (Sandage & Barban, 1970).



Relative to the company, parents may sense that they are both accountable for the nutritional value of their food choices. Research has shown that a core cultural value such as responsibility can be achieved in a more lasting manner by ensembled individualism which is based on the presumption of “self-contained individuals acting to help others because it is to their own interest to do so” (i.e., individuals may have the interest of reciprocity later on for the help they provide now (Sampson, 1988, p. 20). Thus, people are likely to receive help from others without perceiving this aspect as undermining their personal freedom or responsibility (Nadler, 1986). Self is defined in relation with others and people’s responsibility “does not issue from a firmly bounded self-acting” (Sampson, 1988, p. 20).

Parallels of this logic can be found in the firm-customer relationship. Companies that eliminate toy premiums with poor-nutritional meals, to support the cause of obesity, may be perceived as assisting customers make better meal choices, with the interest of reciprocity (i.e., later on, consumers may reward the company through their loyalty). Consequently, parental responsibility is not necessarily undermined when companies try to help parents change their attitudes and behavior toward certain food products. Therefore, parents are expected to share some of the responsibility, for poor-nutritional meals, with the food marketer.

According to the previous review, it is expected that consumers will have a lesser tendency to blame the company, for a negative product outcome (i.e., poor-nutritional meals), when information about government regulation versus corporate self-regulation is provided.

H<sub>1b</sub>: When a government regulation is present, consumers will ascribe less responsibility to the company, for negative product outcomes, than when a corporate self-regulation (i.e., self-imposed restrictions on toy premiums) takes place.

### **Government Regulations and Product Satisfaction**

Prior research suggests that restrictive measures lead to product attractiveness; namely, individuals are likely to increase their evaluations of those products restricted by an authority (Clee & Wicklund, 1980; Mazis et al., 1973). For example, when health warnings about alcohol came from government sources, they were interpreted as a threat, which were then linked to boomerang effects (Ringold, 2002). Specifically, warnings and other public health interventions produced results opposite to those intended. Unger et al. (1999) also stated that adolescents rebelled against anti-tobacco policies by smoking to a greater degree. When the government warned people about unhealthy products they wanted these products even more (Bushman, 1998). The way that consumers perceive warning labels regarding the consumption of fatty foods has also been examined. When confronted with these messages, consumers expressed a higher desire for these products; their reaction was yet more pronounced when a message came from authoritative sources (Bushman, 1998).

In a more recent study, the presence of an authority and its command triggered deviance from the command itself (Conway & Schaller, 2005). On the other hand, Schaller and Conway (1999) suggested that when subtle pressure on individuals to engage in a certain behavior exists, these persons are likely to comply with the pressure. In other words, when norms exist to encourage people to engage in specific behaviors, these individuals will likely comply with, rather than deviate from, these behaviors

(Conway et al., 2009). Finally, warning labels increased attraction to violent films when the information came from the government versus when the message came from the television network (Bushman & Stack 1996).

Extending these findings, when a toy premium ban is present, consumers may report higher levels of product satisfaction, even though the product (the meal purchased) fails to meet certain health standards. Combining these streams of research, it is expected that, in the presence of a government regulation, higher satisfaction with poor-nutritional meals is triggered.

H<sub>1c</sub>: When a government regulation is present, consumers' product satisfaction following a negative product outcome will be higher than when there is no government regulation.

H<sub>1d</sub>: When a government regulation is present, consumers' product satisfaction following a negative product outcome will be higher than when a corporate self-regulation takes place.

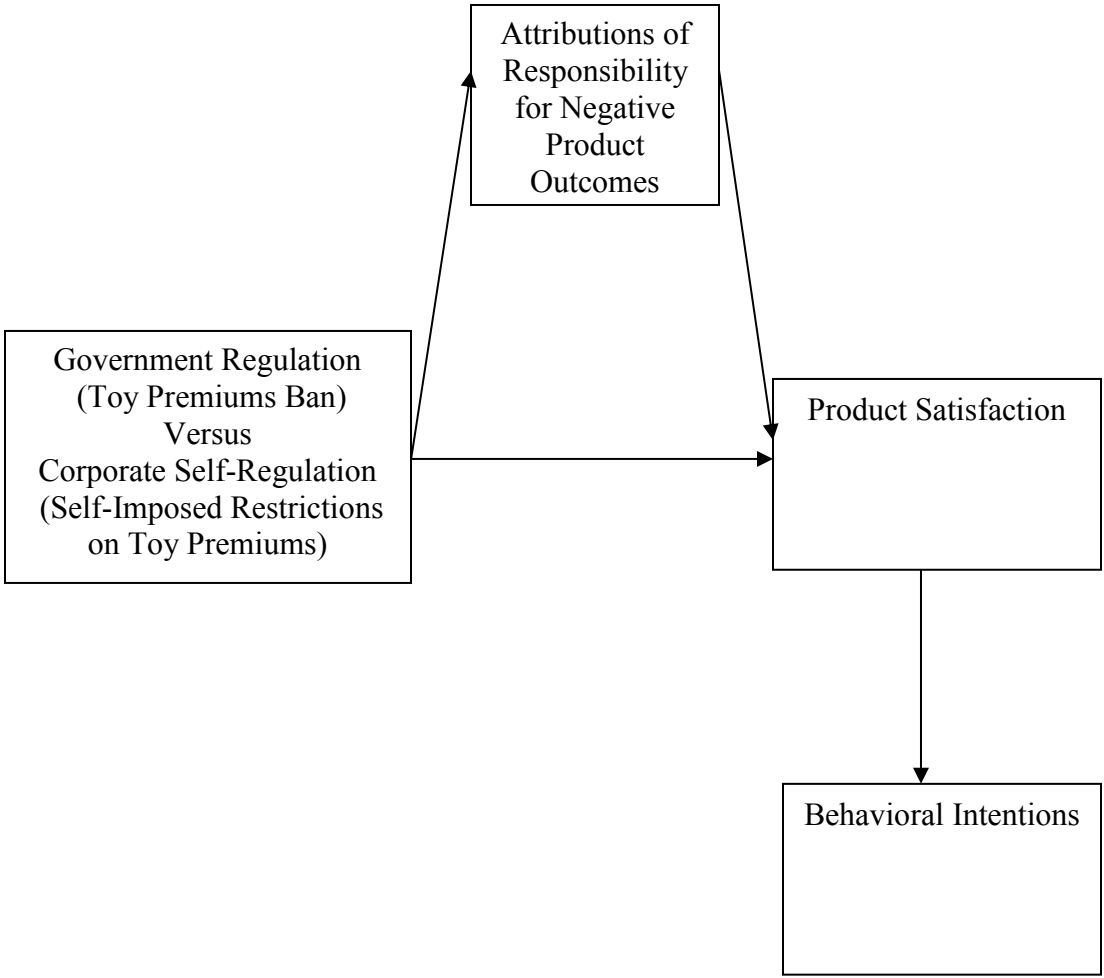
It is further hypothesized that attributional judgments mediate the relation between government regulation and product satisfaction (see Figure 1). Government regulations, such as toy bans, may lead to unexpected attitudes as opposed to when the company eliminates the toys with those meals that exceed certain levels of calories, fat, sodium, and sugar. This effect is possibly explained by the change in parents' attributional judgments. Individuals' responses to government regulations versus corporate self-regulations can be explained by the parents' tendency to blame the company less for their poor-nutritional meals. For this reason, the impact of government regulations on product satisfaction may flow through attributions of responsibility.

H<sub>1e</sub>: Consumers' attributions of responsibility for a negative product outcome will mediate the relationship between a government regulation and consumers' product satisfaction.

### **Product Satisfaction and Behavioral Intentions**

Considering that ordinances such as the California toy bans are intended to change parents' actions vis-à-vis poor-nutritional products consumption, behavioral intentions represent an important factor for policy makers. The impact of satisfaction on behavioral intentions is well demonstrated in the marketing literature (e.g., Cronin & Taylor, 1992; Gustafsson, Johnson, & Roos, 2005; Zeithaml, Berry, & Parasuraman, 1996). Research has further shown that satisfaction is positively related to behavioral intentions (e.g. Bolton, 1998; Bolton & Lemon, 1999; Gustafsson et al., 2005; Mittal & Kamakura, 2001). In line with this research stream, product satisfaction is expected to predict parents' behavioral intentions toward poor-nutritional meals. Therefore, satisfaction with those products that exceed set levels of fat, calories, sodium, and sugar is likely to be positively related to behavioral intentions toward these products. Specifically, the higher the satisfaction, the greater the tendency to make poor-nutritional food choices, in the future.

H<sub>1f</sub>: Consumers' product satisfaction will predict behavioral intentions. The higher the product satisfaction, the higher the likelihood that consumers will make a similar poor-nutritional meal choice in the future.



*Figure 1.* The Effects of Government Regulations, Explained by Attributions of Responsibility

## **Corporate Social Responsibility in Traditional Advertising to Children**

Corporate social responsibility is “a business organization’s configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm’s societal relationships” (Wood, 1991, p. 693). Companies’ activities with respect to their perceived societal obligations are an indicative of CSR and have been considered in previous studies in marketing (Klein & Dawar, 2004; Sen & Bhattacharya, 2001). As an example, marketing actions such as promotions with social connotations are often adopted as a response to consumer expectations of corporate social responsibility (Benezra, 1996; Scott, 1995; Smith, 1994).

Companies’ actions with regard to those issues related to ecology and environmental quality, consumerism, community needs, and national responsibilities reveal the associations with a company’s social responsibility behavior (Grunig, 1979). Corporate advertising, corporate philanthropy, cause-related marketing, sponsorships, and public image studies are used extensively each year (Kinnear & Root, 1995; Schumann, Hathcote, & West, 1991; Smith & Stodghill, 1994) in order to influence consumer corporate associations, which are an element of consumers’ cognitive associations for a company (Brown & Dacin, 1997) and a source of competitive advantage (Aaker, 1996; Ghemawat, 1986). Corporate associations have an important impact on companies’ reputation, consumer purchase intentions, evaluations of corporate, brand, and products, and customer identification with a product (Brown & Dacin, 1997; Ellen et al., 2006; Gürhan-Canli & Batra, 2004; Lichtenstein, Drumwright, & Braig, 2004; Mohr & Webb, 2005).

Corporate associations refer to the knowledge that consumers hold about firms (Brown & Dacin, 1997) and upon which they make attribution judgments, when a product-harm crisis occurs (Klein & Dawar, 2004). Corporate associations addressed in the marketing literature have been classified in six categories; corporate social responsibility being one of these dimensions (Brown, 1998).

Corporate social responsibility denotes the extent to which business entities are meeting societal obligations in a responsible manner (Brown & Dacin, 1997; Dowling, 1986). These CSR associations, a type of corporate association, have received considerable attention in the marketing literature and practice (Ellen et al., 2006). They “reflect the organization’s status and activities with respect to its perceived societal obligations” (Brown & Dacin, 1997, p. 69.) Examples of such activities are set by those food companies that made the commitment to eliminate potentially unhealthy food products from advertising media (Quilliam, 2008). In 2006, ten major food and beverage companies have committed to self-impose limitations on advertising messages, including limits on product use in new advertising media (e.g., advergames). As another example, McDonald’s has announced its plans to offer improved nutritional menu choices.

Socially responsible activities promoted by numerous corporations may be viewed as either serving the company’s financial goals or sincerely trying to solve major societal issues (Drumwright, 1996; Ellen et al., 2006). Consistent with this view, individuals could judge certain corporate actions as “good/bad, positive/negative, or favorable/unfavorable” (Peloza & Shang, 2011, p. 119).

Companies try to be as responsive, to the needs of society, as possible because they depend on it for survival (Ellen et al., 2006); hence, their goal is to create a good image of a company through positive CSR associations.

Because consumers have little confidence in businesses (Ellen et al., 2006), it is critical that they understand when consumers recognize corporations as good citizens. Marketers need to understand the way that the information associated with their actions impact consumers' responses with regard to the products and services offered (Brown & Dacin, 1997). Previous research considered positive versus negative CSR associations when examining their impact on consumers' attitudes and behavior (Brown & Dacin, 1997; Klein & Dawar, 2004; Sen & Bhattacharya, 2001). An example of negative CSR association is when a company is poorly rated regarding its corporate giving and community involvement (Brown & Dacin, 1997), while a positive CSR association denotes the opposite. In their study, Sen and Bhattacharya (2001) exposed subjects to positive or negative CSR information to assess the effects of corporate social responsibility on consumers' responses. In that context, positive versus negative CSR associations were illustrated by the degree to which a company was active against unfair overseas manufacturing practices.

A firm's commitment to a specific cause is another factor that signifies whether or not that company is exploiting the cause (Webb & Mohr, 1998; Ellen et al., 2006). For example, a longer commitment is likely to indicate a "real commitment to the effort, thus suggesting values-driven motives" whereas a shorter commitment could be viewed as driven by "strategic performance demands, egoistic motives, or stakeholder pressure" (Ellen et al., 2006, p. 151).



Parallels to these CSR initiatives can be found in food companies' actions linked to the issue of advertising to children. Obesity and its related health issues have become a major societal concern in the U.S. and around the world. As a result, food marketers have been under increased scrutiny (Quilliam, 2008), which has motivated them to take action (Seiders & Berry, 2007). In doing so, food marketers have oscillated between two strategies: the elimination of poor-nutritional product advertising to children and the advertising of more nutritious products and/or healthier lifestyles. Those companies who choose to eliminate advertising, of unhealthy food, to children may be perceived as more altruistic and seriously concerned about childhood obesity (Quilliam, 2008), while those companies that promote healthier products and/or lifestyles, while still advertising items that fail to meet certain nutritional guidelines, may be viewed as less engaged in addressing juvenile obesity.

Consistent with these practices, in the current context, a high commitment to combat childhood obesity is reflected by the decision to eliminate advertising with poor-nutritional food products to children (i.e., elimination of toy premiums with poor-nutritional meals). Conversely, a lower commitment to the cause of childhood obesity may stem from the decision to advertise more nutritious food choices, while still promoting those products that have poor nutritional levels.

**The effects of corporate social responsibility on attributions of responsibility.**

Previous research on corporate social responsibility and consumer attributions has focused on attributions of the motives of a firm's socially responsible actions (e.g., Ellen et al., 2006; Handelman & Arnold, 1999; Quilliam, 2008; Rifon et al., 2004; Webb & Mohr, 1998). Researchers and practitioners alike have been interested in understanding

consumer attributions of why firms engage in certain CSR activities (Gilbert & Malone, 1995; Ellen et al., 2006). For instance, a study that used the attribution theory to examine the effects of corporate sponsorship showed that a good fit between a firm and its sponsored cause yields consumer attributions of altruistic sponsor motives; thus, sponsor credibility and attitude toward the sponsor were enhanced (Rifon et al., 2004).

Expanding on the Rifon et al. (2004) model, Quilliam (2008) used Attribution Theory to examine the motives that consumers ascribe to marketers when they change their advertising to children strategies. This author proposed that the elimination of food advertising to children would generate stronger consumer attributions of internal (i.e., altruistic) motives and weaker attributions of external motives when compared to those situations when firms still use advertising to children but promote a healthy lifestyle (Quilliam, 2008).

Consumers are aware that companies use aggressive food marketing to children in order to increase sales and profits; therefore, those businesses that adopt such a radical and unexpected action (i.e., elimination of food advertising to children) are viewed as more seriously concerned about obesity and consequently, more committed to fight this problem. Lastly, Ellen et al. (2006) suggested that companies' high commitment to a cause increased values-driven attributions and decreased strategic, egoistic, and stakeholder-driven attributions.

Drawing from these streams of research, those firms, who are seriously determined to support the cause of obesity, are likely to be perceived more positively, which favorably affects consumer attributional judgments. It has been, in fact, demonstrated that corporate social responsibility has a halo effect on attributions in a product-harm crisis; in

particular, CSR associations were activated when consumers made locus (i.e., whether the cause of the crisis is internal or external to the firm), stability (i.e., whether the cause of the crisis is stable or temporary), and controllability (i.e., whether the cause of the crisis is within or outside the control of the company) attributions (Klein & Dawar, 2004). When prior corporate social responsibility associations were positive relative to negative CSR, the locus of the crisis was perceived as external and the crisis event was viewed as unstable and uncontrollable by the firm, which triggered a lesser tendency to blame the company for the product-harm crisis.

Researchers in the social psychological field have demonstrated that people's impressions about their partner can affect attributions and consequent behavioral outcomes (Berscheid & Walster, 1978; van Lange & Kuhlman, 1994). In a more recent study, Sedikides, Campbell, Reeder, & Elliot (2002) showed that partner impressions (e.g., sincerity, morality, fairness) predict attributions of responsibility for the task outcome; that is, favorable impressions of the partner caused individuals to refrain from self-serving bias. When individuals formed a positive impression of their partners, they did not take more responsibility than their partner for a successful outcome and did not blame their partner more than themselves for a failure. On the contrary, when partners have a negative impression, they tend to blame the other for the co-produced failure. Sedikides, Campbell, Reeder, & Elliot (1998) also demonstrated that, in a jointly produced outcome, those individuals who have a favorable/positive image about their close partner refrain from self-serving bias which means that they are willing to take more personal responsibility for failure rather than to blame the partner for this outcome.

Companies that adopt radical or unexpected CSR actions, such as the elimination of food advertising to children, as opposed to the promotion of more nutritious products or healthier lifestyle messages, are likely to be viewed as more sincerely engaged in major social issues such as childhood obesity and thus, be more appreciated by consumers. The more committed a company is toward its cause, the more favorable are consumers' impressions. In line with the earlier socio-psychological studies, and due to these possible positive impressions, consumers may be less likely to blame the food marketers for a negative product outcome, and more likely to share some of the blame.

On the basis of the previous discussion, it is proposed that consumers will have a lesser tendency to blame the company for negative product outcomes (i.e., poor-nutritional meals) when CSR actions denote a high commitment to the cause of obesity. On contrary, when CSR illustrates low commitments, consumers are likely to ascribe more responsibility to the firm when a negative product outcome occurs.

H<sub>2a</sub>: When companies are highly committed to major social issues such as childhood obesity (e.g., eliminate advertising of poor-nutritional meals), consumers will ascribe less responsibility to the company, for negative product outcomes (e.g., poor-nutritional meals) than when they have a low commitment to the social issue (i.e., advertise more nutritious meals).

**Corporate social responsibility and company evaluations.** Numerous studies have demonstrated that some activities that highlight corporations' socially responsible behavior may trigger consumer positive attitudes and behavioral responses (e.g., Brown & Dacin, 1997; Ellen et al., 2000; Folkes & Kamins, 1999; Sen & Bhattacharya, 2001).

In his review, Brown (1998) illustrated that corporate social responsibility associations have a direct impact on company evaluations, product satisfaction, and behavioral intentions.

The marketing literature also reveals that firms who exceed consumers' expectations by their socially responsible actions are likely to enjoy more positive consumer attitudes and increased behavioral intentions (Creyer & Ross, 1997; Pyu, 1998; Zeithmal, 1998). For example, parents who are familiar with aggressive food marketing directed toward children are likely to find the elimination of advertising of unhealthy food particularly unexpected and altruistic, and ultimately an initiative in the interest of consumers (Quilliam, 2008); consequently, more positive attitudes are likely to emerge.

Other studies have shown that cause-related marketing programs lead to positive consumer attitudes toward the company (e.g., Berger, Cunningham, & Kozinets, 1999; Ross, Patterson, & Stutts, 1992). Corporate social responsibility information also has a significant impact on individuals' assessments of the firm. For instance, Sen and Bhattacharya (2001) found that consumers reacted positively to positive information and negatively to negative CSR actions, which translates to lower company evaluations when subjects were exposed to negative CSR information and, conversely, higher assessments when the information was positive. Additionally, Lafferty and Goldsmith (1999) found that positive corporate credibility, which was created by a company's contributions to community and environment versus negative corporate credibility (i.e., the company's poor quality control) significantly and positively affected consumer attitudes toward the company's brand.

Consumers' responsiveness to CSR was also tested by Mohr and Webb (2005). A high level of CSR (i.e., information about the company's best rating in the industry on the

corporate giving and environment) led to more positive evaluations of the company and higher levels of consumers' purchase intentions when compared to a low level of corporate social responsibility.

It is important to note that, during certain product-harm crises, negative company evaluations can be minimized due to a positive image of the company (e.g., Mowen & Ellis, 1981; Mowen, Jolly, & Nickell, 1981; Siomkos & Kurzbard, 1994). For instance, Siomkos and Kurzbard (1994) indicated that the unfavorable effects of a crisis are likely to be mitigated when the firm truly acts as socially responsible by recalling the harmful products. A direct impact of CSR associations on brand evaluations, in a product-harm crisis, was also documented by Klein and Dawar (2004); when prior CSR was positive, there was a significant increase in brand evaluations and ultimately, consumers' buying intentions were enhanced.

The following hypothesis will be drawn from these streams of research on the impact of CSR on consumer attitudes toward the company; specifically, it will be expected that consumers report higher rates for their company evaluations when food marketers are highly committed to solve a major social issue such as childhood obesity (e.g., eliminate advertising with poor-nutritional meals). On the contrary, lower rates are expected when the company has a lower commitment to solve this societal problem (i.e., advertise more nutritional meals).

H<sub>2b</sub>: When firms are highly committed to major social issues such as childhood obesity, company evaluations, following a negative product outcome, will be higher than when they have a low commitment to the social issue.

Of particular note is that corporate social responsibility effects on consumers' attitudes may flow through attributions of responsibility (see Figure 2). As previously discussed, consumers are likely to assume more personal blame, for a negative product outcome, when companies show a higher commitment to become socially responsible. This may be true because food marketers, who decide to renounce one of their most important marketing tools (i.e., toy premiums), are potentially perceived as more seriously involved in the battle against juvenile obesity. These attributions of responsibility, in turn, lead to more favorable attitudes toward the firm. It is thus reasonable to believe that the impact of CSR on company evaluations can be explained by attributions of responsibility.

H<sub>2c</sub>: Consumers' attributions of responsibility for a negative product outcome will mediate the relationship between corporate social responsibility and company evaluations.

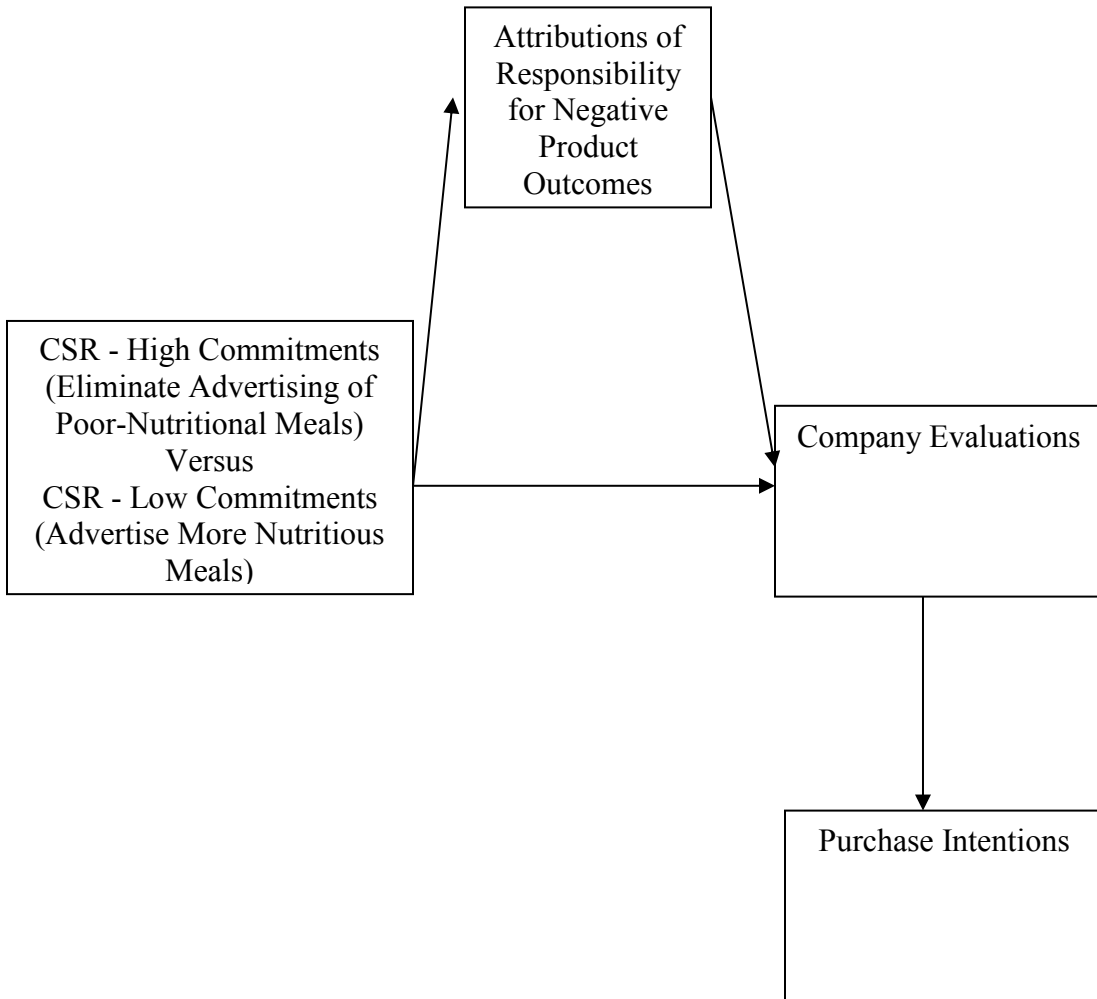
**Company evaluations and purchase intentions.** Purchase intention is considered a very important variable for marketers considering that the cost of retaining existing customers is less expensive than attracting new customers (Maxham, 2001; Spreng, Harrell, & Mackoy, 1995). The direct and positive impact of customer satisfaction on purchase intentions has long been demonstrated in the marketing literature (e.g., LaBarbera & Mazursky, 1983; Mahxam, 2001; Oliver & Linda, 1981; Oliver & Swan, 1989; Yi, 1990). In a more recent study, Klein and Dawar (2004) showed that brand evaluations predict consumers' buying intentions; higher satisfaction with the brand leads to enhanced purchase intentions. Finally, less satisfied consumers are less likely to

repurchase a specific brand when compared to more satisfied individuals (cf., Francken, 1983).

In line with this research stream, company evaluations are expected to predict parents' purchase intentions. Therefore, as the company evaluations increase, future purchase intentions also rise.

H<sub>2d</sub>: Consumers' company evaluations will predict purchase intentions. That is, the higher the company evaluations, the higher the consumers' purchase intentions from the company.





*Figure 2.* The Effects of Corporate Social Responsibility, in Traditional Advertising to Children, Explained by Attributions of Responsibility.

## **Corporate Social Responsibility in Online Advertising to Children**

Those online interactive games that are located and can be played on food companies' Web sites, and include any type of brand name, pictures of food packaging or spokes-characters qualify as advergimes (Lee, Choi, Quilliam, & Cole, 2009; Quilliam et al., 2011; Weber, Story, & Harnack, 2006). A majority of food products promoted online is not consistent with a healthy diet and negatively impacts children's food preferences and choices; Moore and Rideout (2007), in fact, reported that 90 % of the food companies' Web sites, examined in their study, promoted products of poor nutritional quality.

The advergimes combine advertising and entertainment; consequently, the likelihood that online marketing has more effective negative effects on children is especially high (Moore & Rideout, 2007; Quilliam et al., 2011). Moreover, 71 % of children between 8 and 14 years old visit the Internet at least once a week and spend on average 19 hours online each month (Olsen, 2007), and their number continues to increase (Goetzl, 2006). For this matter, consumer advocates have called for corporate self-regulatory solutions that would either reduce the advertising of poor nutritional products to children, in all media (e.g., Wootan, 2003; Federal Trade Commission, 2006; Institute of Medicine of the National Academies, 2006) or change the way that food products are advertised to children.

A recent study suggested that self-regulating marketing to children, in the domain of food advergimes, has yet to be implemented; for instance, the promotion of food products that fail to meet nutritional guidelines for a healthy diet is still in place in many online interactive games (Quilliam et al., 2011).

Finally, recent calls for government regulation, in particular bans of online food marketing to children have been recorded (e.g., Quilliam, 2008, Quilliam et al., 2011; Teinowitz, 2003). In response to public and regulators pressures, the industry has taken various steps to remedy the problem of advertising of food products to children via emerging media. As such, food companies pledged to promote more healthful dietary messages that encourage healthful lifestyles and good nutrition in both traditional and new media (Moore & Rideout, 2007). Some of them have committed to self-imposed limitations on advertising messages, including limits on product use in advergames (Moore & Rideout, 2007; Quilliam et al., 2011). More specifically, self-regulatory actions such as the elimination of poor-nutritional food products, from advergames, or the incorporation of healthy lifestyle messages, into these games, have been considered by food corporations (CBBB, 2006); the effects of these initiatives are yet unknown (Moore & Rideout, 2007).

In 2006, the Children's Food and Beverage Advertising Initiative was established by ten major US food marketers and the Council of Better Business Bureau as a self-regulatory program designed "to support parents by shifting the mix of food and beverage products advertised to children to healthier products" (CBBB, 2009, p. 2). Under the Initiative's principles, participants to this self-regulated program have committed to eliminate those poor-nutritional products and incorporate *better-for-you* foods (e.g., products that have fewer calories and are lower in fat, sugar, and sodium), in advergames, or to include healthy lifestyle messages, in those interactive games primarily directed to children under 12 that integrate a company's food or beverage products (CBBB, 2009).

For instance, Kellogg has committed to remove those products that do not meet certain nutritional guidelines for a healthy diet and incorporate better-for-you food and beverage products in online interactive games. The company has also considered including healthy lifestyle messages in their advergames (i.e., “Getting online is great but so is getting outside to play! See you in 15 minutes with some ideas about how to get your move on”) (CBBB, 2009, p. 48). Another example is set by McDonald’s, which pledged that their advergames will either incorporate better-for-you food and beverage items or “Ideas to move it” healthy lifestyle messaging (i.e., “Dance it, Read it, Shake it, Imagine it, Kick it, Play it, Plant it, Dream it, Think it”); furthermore, Kraft Foods uses healthy lifestyle messages such as “Be a player. Get up and play an hour a day!” (CBBB, 2010, p. 6).

These self-regulatory actions (i.e., elimination of poor-nutritional food products from advergames, incorporation of healthy lifestyle messages into these games) are forms of CSR used by companies to consolidate their customer relationship, receive positive consumer responses, and ultimately to gain a competitive advantage. Thus, it is critical to understand how consumers respond to such initiatives and consequently, which CSR actions should be adopted in order to receive favorable company evaluations and behavioral intentions; this is yet more relevant considering the increased calls for government regulation of online interactive games and concerns about the changes needed to address the consumer interests (Moore & Rideout, 2007; Quilliam et al., 2011).

This dissertation further examines the impact of CSR, in online advertising to children, on consumers’ company evaluations. Additionally, consumers’ intentions to purchase from a company, involved in socially responsible actions, will be assessed.

In line with previous research (e.g., Ellen et al., 2006; Quilliam, 2008; Sen & Bhattacharya, 2001), in the current context, those companies that eliminate their poor-nutritional products from the advergames and introduce better-for-you items are potentially perceived as highly committed to support the cause of childhood obesity. Conversely, the incorporation of healthy lifestyle messages in advergames is likely to reflect a low commitment to cope with this major social issue. The impact of these socially responsible actions, on consumers' attitudes, is assessed again through attributional judgments; finally, consumers' purchase intentions will be analyzed.

The purpose of this final study is to examine the robustness of the findings proposed earlier for CSR, in traditional advertising to children. A greater range of settings provides a more robust test of the hypotheses and leads to greater generalizability of the results across types of CSR examined here (Mohr & Webb, 2005). Consequently, similar hypotheses on corporate social responsibility effects will be derived and tested in online advertising settings (see Figure 3).

H<sub>3a</sub>: When companies are highly committed to major social issues such as childhood obesity (e.g., eliminate poor-nutritional products from online advertising), consumers will ascribe less responsibility to the company for negative product outcomes (e.g., poor-nutritional products) than when they have a low commitment to this social issue (e.g., incorporate healthy lifestyle messages in online advertising).

H<sub>3b</sub>: When firms are highly committed to major social issues such as childhood obesity, company evaluations, following a negative product outcome, will be higher than when they have a low commitment to this social issue.

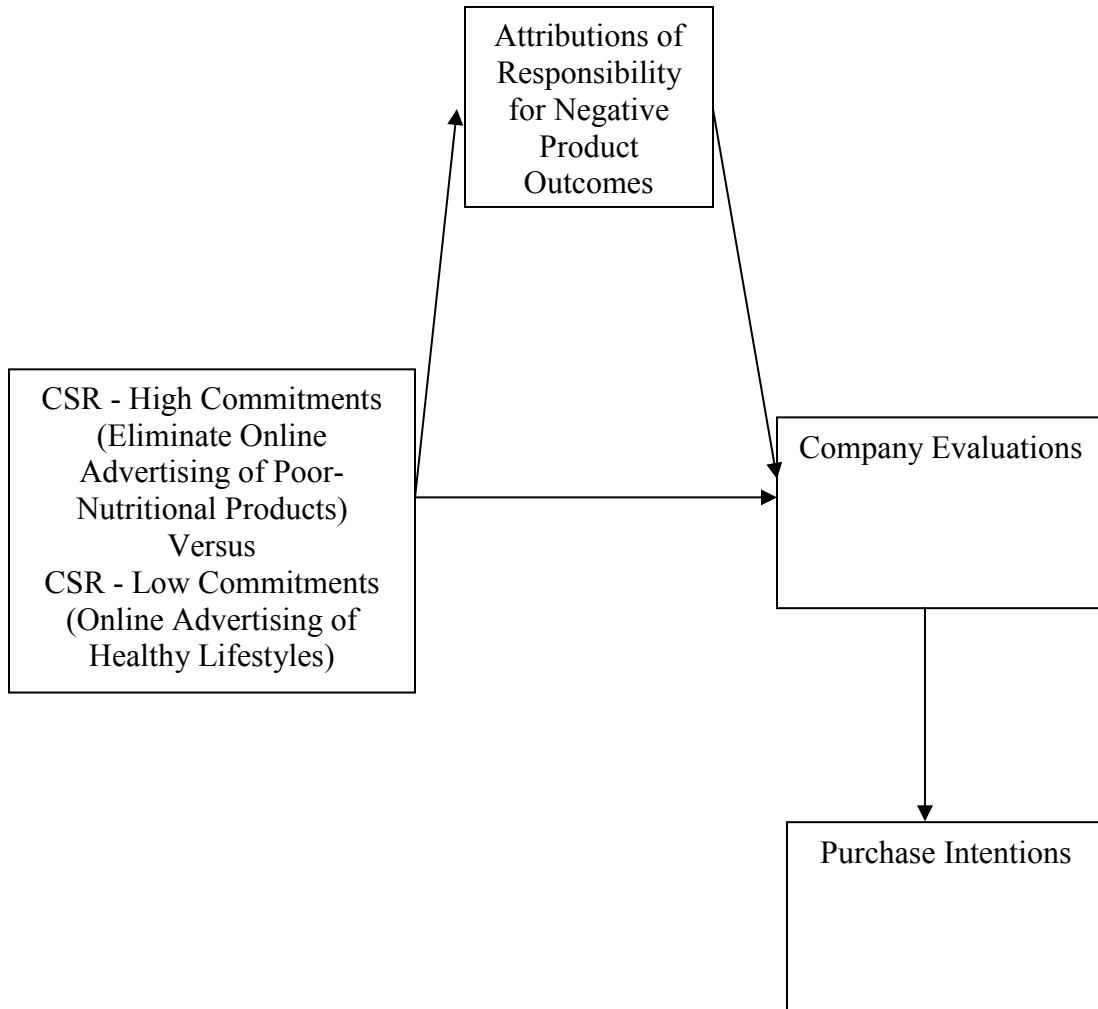
H<sub>3c</sub>: Consumers' attributions of responsibility for a negative product outcome will mediate the relationship between corporate social responsibility and company evaluations.

H<sub>3d</sub>: Consumers' company evaluations will predict purchase intentions. That is, the higher the company evaluations, the higher the consumers' purchase intentions from the company.

As discussed earlier, the purpose of this final study is to verify the robustness of the previous findings on the impact of CSR, in traditional advertising settings. Lee et al. (2009) presented a content analysis of advergames and suggested that cereals and soft drinks were the most frequently promoted product categories in these games. Therefore, a fictitious brand of children's cereals will be used in this study. The use of a fictitious company is intended to eliminate the possibility of contamination of CSR manipulation by preexisting consumer associations with a real company (Klein & Dawar, 2004) which could have happened in the previous study.

The literature on corporate social responsibility is likely advanced by examining the effects of CSR associations in a different setting (i.e., online advertising to children) and for a different product category (i.e., kids' cereals). Therefore, if the hypotheses are supported, the findings on CSR predicted earlier are confirmed and can accordingly be generalized. That is, those CSR actions, associated with a high corporate commitment to address the problem of juvenile obesity, are likely to trigger enhanced company evaluations and subsequent behavioral intentions; these reactions being explained by consumers' decreased tendency to blame a company for negative product outcomes.

These effects and their underlying mechanism are expected to occur for both traditional and online advertising settings and various product categories (e.g., fast-food, cereals).



*Figure 3.* The Effects of Corporate Social Responsibility, in Online Advertising to Children, Explained by Attributions of Responsibility.

## Chapter 4

### Methods

The data for testing the hypotheses were collected experimentally, using a sample of adult consumers, who have one or more children aged 12 or younger and purchase children's meals from fast food restaurants, in particular McDonald's. A real company, current government regulations and corporate advertising strategies were used to enhance external validity (Quilliam, 2008). Six studies were conducted: three pilot studies in which some of the scales were tested and three main experiments used to test the hypotheses.

#### Pilot Study 1

**Design.** The first pilot study was used to pretest the design of the scales of Main Study 1 and its feasibility. The design was between-subjects and the participants were randomly assigned to one of the three conditions: control group, government regulation, and corporate self-regulation. The experimental design was administered via online survey.

**Respondents.** The participants were adult consumers with children aged 12 and younger who purchase children's meals from fast food restaurants, in particular McDonald's Happy Meals. The subjects were recruited from members of the online panel operated by Qualtrics, a private research company, and financially compensated for their participation. This is essentially a convenience sample and, when nonprobability sampling techniques are used, researchers can rely on prior studies as a guide for estimating the sample sizes (Malhotra & Peterson, 2006). For instance, in their pilot studies, Quilliam (2008) used 13 participants per condition whereas Bendapudi and



Leone (2003) employed 8 subjects per the experimental treatment. Thus, 51 subjects with 17 participants per each condition (i.e., control group, government regulation, and corporate self-regulation) represent a reasonable sample size.

**Stimulus materials.** Stimulus materials were developed using the real ordinance, passed in the state of California, with regard to free incentives linked to those children's meals that fail to meet basic nutritional standards for fat, sodium, sugar, and calories (the first treatment). In addition, corporate self-regulations (i.e., self-restrictions on toy premiums) were used for the second treatment. The materials were presented in the form of a news story announcing the presence of the government regulation or corporate self-regulation (see Appendix A).

**Procedures.** The online, self-administered survey was operated by Qualtrics. The eligibility criteria were that a participant must be a parent of a child aged 12 or younger, primary food shopper, and purchases Happy Meals from McDonald's more than once a month. The subjects were randomly assigned to one of the three conditions (i.e., control group, government regulation, and corporate-self regulation).

Parents were asked some general questions about the reasons why they purchase Happy Meals, nutrition involvement, knowledge, and concerns. The participants then read the news story about the government or corporate regulations targeted to food advertising to children (i.e., toy premiums ban; self-restrictions on toy premiums). In order to ensure the internal validity of the main experiment (i.e., Main Study 1), manipulations are revised during pretesting and tested (Aronson & Carlsmith, 1968; Griffin, Babin, & Darden, 1992; Wetzels, 1977).

The presentation of a negative product outcome was followed by questions that measured attributions, product satisfaction, and behavioral intentions; demographic data concluding the survey (see Appendix E).

**Measures and results.** Attributions of responsibility, product satisfaction, and behavioral intentions were measured with multiple-item Likert-type scales. One of the most widely used indices of internal consistency reliability is coefficient alpha (Cronbach, 1951). A two-item 7-point scale was used to capture attributions of responsibility ( $\alpha = 0.81$ ), three-item 9-point scale to measure product satisfaction ( $\alpha = 0.93$ ), and two-item 7-point scale to measure behavioral intentions toward poor-nutritional meals ( $\alpha = 0.97$ ).

A significant difference was not found in the manipulations of government regulation versus corporate self-regulation; nevertheless, the former had the hypothesized impact on attributions and other dependent variable (i.e., product satisfaction). The subjects in the government regulation condition blamed the company less ( $m = 3.14$ ) than those in the corporate self-regulation treatment ( $m = 3.20$ ) and control group ( $m = 4.32$ ); the multivariate analysis of variance (MANOVA) for all three conditions  $F(2, 48) = 1.99, p > .10$ . The subjects in the government regulation condition reported higher product satisfaction ( $m = 6.29$ ) relative to the other two treatments: control group ( $m = 6.24$ ) and corporate self-regulation ( $m = 6.24$ ); MANOVA for all three conditions  $F(2, 48) = 0.01, p > .10$ .

A non-significant difference in the manipulations of government regulation versus corporate self-regulation could be explained by the lack of wording clarity (i.e., use of marketing directives rather than promotional initiatives), and the length of the news story

(this may have caused subjects to lose interest and be confused). A correction of these details was conducted in the main experiment and manipulation checks were performed, to ensure the effectiveness of the experimental conditions: government regulation and corporate self-regulation.

## **Pilot Study 2**

**Design.** The second pilot study was used prior to launching the next main experiment (i.e., Main Study 2) to run the manipulation checks and pretest the design of the scales. In this study, the impact of corporate social responsibility on consumers' company evaluations, in traditional advertising setting, was assessed. The design involved two experimental conditions: high commitment to combat childhood obesity (the treatment) and low commitment to address this social issue (the control group). This was between-subjects and the participants were randomly assigned to one of these two conditions. Similar to the previous pilot study, the online survey was the research tool used here.

**Respondents.** The participants were again adult consumers with children aged 12 and younger who purchase children's meals from fast food restaurants, especially McDonald's Happy Meals. The respondents were recruited from members of the online panel operated by Qualtrics, a private research company and financially compensated for their participation. Forty parents participated in this study with 20 participants per each condition (i.e., low commitments to the cause of childhood obesity, high commitments to this epidemic).

**Stimulus materials.** The use of a real brand of fast food restaurant (i.e., McDonald's) and actual CSR strategies (i.e., advertise more nutritious Happy Meals;

eliminate the advertising of children's poor-nutritional meals) are likely to enhance external validity. The materials were presented as press releases in which the company hypothetically announced its CSR initiative (see Appendix B).

**Procedures.** Similar to the previous pilot study, the online, self-administered survey was operated by Qualtrics. The participants were parents of a child aged 12 or younger, primary food shoppers, and purchased Happy Meals from McDonald's more than once a month. The subjects were randomly assigned to one of the two conditions (i.e., low commitment to the cause of childhood obesity, high commitment toward this epidemic).

Questions about the reason why participants purchase Happy Meals, nutrition involvement, knowledge, and concerns were addressed in the first part of the survey. The participants then read the press release about the corporate social responsibility actions targeted to food advertising to children. For internal validity of the main experiment (i.e., Main Study 2) to be ensured, manipulations were revised during pretesting and tested (Aronson & Carlsmith, 1968; Griffin et al., 1992; Wetzel, 1977). The presentation of a negative product outcome was followed by questions that measured attributions, company evaluations, and purchase intentions. The third section, which includes the demographic data, concludes the survey (see Appendix F).

**Measures and results.** Scales reliability was conducted for attribution of responsibility, company evaluations, and purchase intentions. Attributions were measured using a two-item 7-point scale ( $\alpha = 0.88$ ), company evaluations with five-item 9-point scale ( $\alpha = 0.89$ ), and purchase intentions with three-item 7-point scale ( $\alpha = 0.96$ ). A significant difference was found in the manipulations of corporate social responsibility. Specifically, subjects in the high commitment condition rated the company's actions

towards childhood obesity as more committed to the cause and carrying more about the cause. The average commitment perception was significantly higher for the high commitment condition ( $m = 6.98$ ) than for the low commitment condition ( $m = 5.83$ );  $p < .10$ . MANOVA was conducted to test whether CSR had the hypothesized impact on attributions of responsibility and company evaluations. The subjects in the high commitment condition blamed the company less ( $m = 3.10$ ) than those in the low commitment treatment ( $m = 3.53$ ); MANOVA for the two conditions  $F(1, 38) = 0.41, p > .10$ . The participants from the treatment also reported higher company evaluations ( $m = 6.52$ ) relative to the control group ( $m = 6.32$ ); MANOVA for the two conditions  $F(1, 38) = 0.19, p > .10$ .

### **Pilot Study 3**

**Design.** The third pilot study was employed prior to launching the final main experiment, namely Main Study 3. This was used to check whether the corporate social responsibility, in online advertising to children setting, had the intended effects on consumer's responses; additionally, the scales that measured the variables of interest were pretested. The design had two experimental conditions: high commitments to combat childhood obesity (the treatment) and low commitments to address this social issue (the control group). The design was between-subjects and the participants were randomly assigned to one of these two conditions. Parents' responses were collected via the online survey.

**Respondents.** The participants were adult consumers with children aged 12 and younger. The focus of this study was on children's cereals rather than meals from fast-food restaurants; therefore, no filter was used to screen out the participants.

The respondents were recruited from members of the online panel operated by Qualtrics and financially compensated for their participation. Forty parents participated in this study with 20 participants per each condition: high commitment to the cause of childhood obesity (i.e., eliminate poor-nutritional products from online advertising) and low commitment to this epidemic (i.e., incorporate healthy lifestyle messages in online advertising).

**Stimulus materials.** Cereals and soft drinks are the most frequently promoted product categories in advergames (Lee et al., 2007); a fictitious brand of children's cereal was thus used in this study. There is a possibility of contamination of CSR manipulation by preexisting consumer associations with a real company (Klein & Dawar, 2004), in the previous study, in which CSR was examined; the use of a fictitious company here is thus intended to eliminate this issue.

The use of actual CSR strategies adopted by various food marketers in their online activities (i.e., eliminate poor-nutritional products from online advertising; incorporate healthy lifestyle messages in online advertising) is likely to enhance external validity. The materials were presented as press releases in which the company hypothetically announced its CSR initiative (see Appendix C).

**Procedures.** The subjects provided by Qualtrics were randomly assigned to one of the two conditions: low commitment to the cause of childhood obesity (i.e., control group) and high commitment toward this epidemic (i.e., treatment).

Questions about the frequency of buying cereals and the reason why participants purchase these products, nutrition involvement, knowledge, and concerns were addressed in the first part of the survey. The participants then read the press release about the

corporate social responsibility actions targeted to food advertising to children. Manipulations were revised during pretesting and tested (Aronson & Carlsmith, 1968; Griffin et al., 1992; Wetzel, 1977). The presentation of a negative product outcome was followed by questions that measured attributions, company evaluations, and purchase intentions. The third section, which includes the demographic data, concludes the survey (see Appendix G).

**Measures and results.** Scales reliability ranged from 0.83 for attributions of responsibility, 0.97 for company evaluations, and 0.99 for purchase intentions. The manipulation of corporate social responsibility did not show statistical significance; nevertheless, the participants in the high commitment condition rated the company's actions towards childhood obesity as more committed to the cause and carrying more about the cause ( $m = 6.55$ ) in comparison to those who were assigned to the low commitment treatment ( $m = 5.98$ ). MANOVA results further showed that CSR had the hypothesized impact on attributions of responsibility and company evaluations. Parents in the high commitment condition blamed the company less ( $m = 2.70$ ) than those in the low commitment treatment ( $m = 3.83$ ); MANOVA for the two conditions  $F(1, 38) = 3.51, p < .10$ . The participants from the treatment reported higher company evaluations ( $m = 4.73$ ) relative to the control group ( $m = 3.77$ ); MANOVA for the two conditions  $F(1, 38) = 2.35, p > .10$ .

### **Main Study 1**

**Design.** This is one of the main experiments used to capture consumers' responses to a toy premium ban, explained by attributions of responsibility. This was between-subjects and randomized experimental design. Parents were randomly assigned to one of the

experimental conditions: control group, government regulation, and corporate self-regulation. The presence of a government regulation was operationalized as a news story with regard to government's intentions to ban free toys with children's meals that exceed certain levels of calories, sodium, fat, and sugar. Lastly, the corporate self-regulation condition was illustrated by a news story that emphasized the company's intentions to eliminate the promotion of those children's meals that fail to meet certain nutritional levels (i.e., withdrawal of the Happy Meals toys). The study was conducted via online survey.

**Respondents.** The participants were members of an online panel operated by Qualtrics, a private research company who financially compensates its respondents for their participation. The participants were adult consumers with children aged 12 and younger who purchase children's meals from fast food restaurants, in particular McDonald's Happy Meals.

McDonald's has been selected, for this study, as it was found among the most popular fast-food restaurants (Quilliam, 2008; Zagat & Zagat, 2007); furthermore, recent government regulations, to combat childhood obesity, are directed toward food restaurants such as McDonald's. Finally, these regulations are addressed primarily to those parents who make frequent fast food purchases; therefore, those participants who buy Happy Meals from McDonald's less than once a month were filtered out from the experiment. The response rate was 9.60 % (c.f., Mohr & Webb, 2005).

When nonprobability sampling techniques are used, researchers can rely on previous research for a good estimation of the sample size (Malhotra & Peterson, 2006). For instance, Bendapudi and Leone (2003) used 124 participants with 16 subjects per



condition, Campbell, Sedikides, Reeder, & Elliot (2000) collected data from 128 participants with 16 per each treatment, and finally, Quilliam (2008) used 70 participants per each experimental condition. Thus, 180 subjects with 60 participants per each condition (i.e., control group, government regulation, and corporate self-regulation) reflect an acceptable sample size. Equal sample sizes per each cell were used in previous research considering that unequal sample sizes can create complications to the estimation of the effects (Keppel, 1991) and the power may be jeopardized (Pocock, 1983; Shadish, Cook, & Campbell, 2002). Finally, equal sample sizes should be used when the total sample size is less than 200 (Shadish et al., 2002).

Fifty six percent of the participants were between 18 and 35 years old and 44 % with ages between 35 and 55; 40 % of the respondents were male and 60 % female. Almost 30 % (22.77) had never attended college and 51.11 % had a college degree or more (e.g., Master's Degree, Doctoral Degree, Professional Degree). The mean household income was in the \$50,000 - \$75,000 range; lastly, more than half (70 %) were Caucasians and 30 % of different other ethnicities such as African American (12 %), Asian American (5 %), Hispanic (8 %), and other (5 %). Responses were provided by participants who lived in various states across the United States. When compared to the overall US population, this sample was slightly younger with a fairly higher education level (US Census Bureau, 2012).

**Stimulus materials.** A real ordinance was used to capture the presence of a government regulation. This is the law passed in Santa Clara and San Francisco, California and banned restaurants to provide toys or other incentives linked to children's

meals that do not meet certain nutritional standards. This ban was presented as a news story to those participants who were randomly assigned to this group.

A self-regulation on advertising, of poor-nutritional meals, initiated by a food company was also presented as a news story to a different group; specifically, these subjects read that McDonald's has supposedly decided to withdraw the Happy Meal toys linked to those meals that fail to meet set levels of calories, sugar, fat, and sodium, as an effort to address recent concerns about childhood obesity. The materials presented in Pilot Study 1 were slightly reworded and shortened to ensure the effectiveness of the experimental conditions (see Appendix D).

**Measures and Procedures.** Attribution of responsibility variable was measured using a combination of the scales developed by Sedikides et al. (2002) and Klein and Dawar (2004). Thus, a scale composed of three, 7- point Likert type statements, scaling from 1 (*Myself*) to 7 (*McDonald's*), measured parents' attributions of responsibility for a negative product outcome (i.e., poor-nutritional meals). One item has been added to those statements used in the pilot study to ensure scale reliability. These items were used to identify whether parents take personal responsibility for those children's meals that do not meet nutritional standards for healthy diets or ascribe the blame to the fast food company. Scale reliability was assessed by calculating the coefficient alpha (Cronbach, 1951). The reliability estimate was  $\alpha = 0.73$ , which is acceptable considering that a widely used rule of thumb is 0.70 (Hatcher, 1994; Nunnally, 1978).

Product satisfaction and behavioral intentions were measured using previously validated scales and presented to the subjects in the form of posttest questions/statements. Product satisfaction was measured with a scale composed of four, 9-point Likert-type

statements, ranging from 1 (*very dissatisfied*) to 9 (*very satisfied*) and 1 (*strongly disagree*) to 9 (*strongly agree*). Examples of such statements are “How satisfied or dissatisfied would you say you are with the Happy Meal you chose for your child?” or “I would say I am very pleased with the Happy Meal I purchased for my child.” One item was added to the three statements used in Pilot Study 1 to measure product satisfaction in order to ensure scale reliability. These scales were adapted from Huffman and Kahn (1998) and Fitzsimons (2000). The reliability estimate  $\alpha = 0.90$  was satisfactory (Hatcher, 1994; Nunnally, 1978).

Behavioral intentions were measured with a scale composed of three, 9-point Likert-type statements, scaling from 1 (*very low*) to 9 (*very high*). The purpose was to measure parents’ intentions to make similar poor-nutritional meal choices in the future. Among the statements addressed were “The probability that I will purchase a similar Happy Meal again is:” or “If I had to do it again, the probability that I will make a similar Happy Meal choice is.” The scales adapted from Cronin, Brady, and Hult (2000) had a satisfactory reliability estimate of  $\alpha = 0.93$ .

The degree to which parental responses are socially desirable ought to be assessed; thus, a modified 12-item Crowne-Marlowe social desirability scale was adapted from Quilliam (2008) and used in this study. Parents responded on 12 dichotomous choice statements (*True* or *False*) and coefficient  $\alpha = 0.71$ . Its correlation with other variable scales was tested to ensure that social bias does not influence parents’ responses.

In addition, a locus of control variable was used to measure how internality (i.e., the degree to which parents believe that they have control over their own life/outcomes) affects parents’ responses. The scale was adapted from Levenson (1981) and sample

items included “Whether or not I get into a car accident depends mostly on how good a driver I am” or “When I make plans, I am almost certain to make them work.” Parents’ responses were based on seven, 7-point Likert-type statements, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The scales had an acceptable reliability estimate of  $\alpha = 0.77$ .

Subjects were also asked about their political orientation, political party affiliation, and political-economic conservatism to assess the extent to which these variables affected parents’ attributions of responsibility. Considering the conservative view that individuals are responsible for themselves versus the liberal vision that government should solve social issues such as poverty or obesity, it is particularly important to understand whether parents’ political orientation affects their responses. The political orientation included the item “When it comes to politics, do you usually think of yourself as: 1 (*very liberal*), 2 (*liberal*), 3 (*slightly liberal*), 4 (*moderate or middle of the road*), 5 (*slightly conservative*), 6 (*conservative*), and 7 (*very conservative*).” The political party affiliation asked “Generally speaking, do you usually think of yourself as a: 1 (*strong democrat*), 2 (*weak democrat*), 3 (*independent democrat*), 4 (*independent*), 5 (*independent republican*), 6 (*weak republican*), and 7 (*strong republican*)?” These two variables were adapted from Gross and Simmons (2007). A political-economic conservatism scale was also used to measure individuals’ support for various social policies (Pratto, Sidanius, Stallworth, & Malle, 1994). The statement ranged from 1 (*very liberal*), 2 (*liberal*), 3 (*slightly liberal*), 4 (*moderate or middle of the road*), 5 (*slightly conservative*), 6 (*conservative*), to 7 (*very conservative*). The measurements of the previously discussed variables are presented in Table 1.

Upon their agreement and eligibility to participate in the study, subjects were randomly assigned to one of the three conditions. The study began with general questions about the reason why they purchase Happy Meals, their customer brand relationship with McDonalds', nutrition involvement, knowledge, and concerns, and attitudes toward childhood obesity. The participants then read the news story about a government regulation, or corporate-self regulation, targeted to food advertising to children and intended to combat childhood obesity. The parents read either about the toy premiums ban or the corporate self-restrictions on toy premiums. The survey continued with the presentation of a negative product outcome (i.e., poor-nutritional meal choices), which was followed by questions that measured attributions, product satisfaction, and behavioral intentions. Questions about demographics, political orientation, political party affiliation, and political-economic conservatism, and statements that measured the social desirability and locus of control followed. At the end of the survey parents were also asked to indicate the Happy Meal that they would be most likely to purchase for their child, based on various alternatives (see Appendix H).

Table 1

*Measures Main Study 1*

Variable	Item	$\alpha$	Source
Attributions of responsibility	Who was most responsible for the poor nutritional value of the Happy Meal you chose and purchased? The poor nutritional value of the Happy Meal you selected and purchased was the responsibility of... In your opinion, who should be held most accountable for the poor nutritional value of the Happy Meal you chose and purchased? 1 ( <i>Myself</i> ) and 7 ( <i>McDonald's</i> )	0.73	(Klein & Dawar, 2004; Sedikides et al., 2002)
Product satisfaction	How satisfied or dissatisfied would you say you are with the Happy Meal you chose for your child? 1 ( <i>Very dissatisfied</i> ) and 9 ( <i>Very satisfied</i> ) I would say I am very pleased with the Happy Meal I purchased for my child. Given the identical set of Happy Meal alternatives to choose from, I would make the same choice again. Thinking of an ideal example of the Happy Meal I purchased, my choice was very close to the ideal example. 1 ( <i>Strongly disagree</i> ) and 9 ( <i>Strongly agree</i> )	0.90	(Fitzsimons, 2000; Huffman & Kahn, 1998)
Behavioral intentions	The probability that I will purchase a similar Happy Meal again is: If I had to do it again, the probability that I will make a similar Happy Meal choice is: If my child asks for a similar Happy Meal next time when we visit McDonald's, the probability that I will buy it is: 1 ( <i>Very low</i> ) and 9 ( <i>Very high</i> )	0.93	(Cronin et al., 2000)
Social desirability	I am always willing to admit when I make a mistake. I always try to practice what I preach.		

Table 1 (Cont'd)

*Measures Main Study 1*

Variable	Item	$\alpha$	Source
Social desirability	<p>I would never think of letting someone else be punished for my wrong-doings.</p> <p>I have never been annoyed when people expressed ideas very different from my own.</p> <p>I have never deliberately said something that hurt someone's feelings.</p> <p>I have never been irritated when people expressed ideas very different from my own.</p> <p>There have been times when I felt like rebelling against people in authority even though I knew they were right.</p> <p>I sometimes feel resentful when I don't get my way.</p> <p>There have been occasions when I took advantage of someone.</p> <p>I sometimes try to get even rather than forgive and forget.</p> <p>At times I have really insisted on having things my own way.</p> <p>There have been occasions when I felt like smashing things.</p> <p>1 (<i>True</i>) and 2 (<i>False</i>)</p>	0.71	(Crowne & Marlowe, 1960; Quilliam, 2008)
Locus of control	<p>Whether or not I get into a car accident depends mostly on how good a driver I am.</p> <p>When I make plans, I am almost certain to make them work.</p> <p>How many friends I have depends on how nice a person I am.</p> <p>I can pretty much determine what will happen in my life.</p> <p>I am usually able to protect my personal interests.</p> <p>When I get what I want, it's usually because I worked hard for it.</p> <p>My life is determined by my own actions.</p> <p>1 (<i>Strongly disagree</i>) and 7 (<i>Strongly agree</i>)</p>	0.77	(Levenson, 1981)

Table 1 (Cont'd)

*Measures Main Study 1*

Variable	Item	$\alpha$	Source
Political Orientation	When it comes to politics, do you usually think of yourself as: 1 ( <i>Very liberal</i> ) and 7 ( <i>Very conservative</i> )		(Gross & Simmons, 2007)
Political party affiliation	Generally speaking, do you usually think of yourself as a: 1 ( <i>Strong democrat</i> ) and 7 ( <i>Strong democrat</i> )		(Gross & Simmons, 2007)
Political-economic conservatism	Indicate your political views in the following categories. In other words, how do you think of yourself when it comes to: - foreign political issues - economic issues - social issues 1 ( <i>Very liberal</i> ) and 7 ( <i>Very conservative</i> )		(Pratto et al., 1994)

**Results Main Study 1**

**Manipulation checks.** Manipulation checks were used for the two conditions: government regulation and corporate self-regulation. A two-item, 9-point Likert type scale ( $\alpha = 0.86$ ) was used to ensure that the manipulation for government regulation had its intended effects. It appears that subjects who were exposed to the toy premium ban condition rated this initiative as interfering with parents' responsibility to choose the food they deem appropriate for their children or undermining parental responsibility ( $m = 6.31$ ) to a higher degree relative to those who read about the corporate self-restrictions on toy premiums ( $m = 5.27$ );  $F(1, 118) = 5.01, p < .05$ . The manipulation of government regulation versus corporate-self-regulation worked as intended.



**Multivariate analysis of variance.** MANOVA was used to test whether the government regulation has the hypothesized impact on attributions of responsibility and product satisfaction. As predicted by H<sub>1a</sub> and H<sub>1b</sub>, the presence of a toy premium ban triggered less blame to the company, for poor-nutritional meals. Specifically, attributions of responsibility to the firm, in the government regulation condition, were lower ( $m = 2.98$ ) relative to the control group ( $m = 3.68$ ) and corporate-self regulation ( $m = 3.99$ );  $F(2, 179) = 6.61, p < .01$ . The multivariate analysis of variance results further showed that, when government issued a ban on children's meals toy, parents reported a higher satisfaction with their poor-nutritional meal choices. In other words, subjects in the government regulation condition gave higher product satisfaction ratings ( $m = 6.09$ ) as opposed to those participants in the control group ( $m = 5.30$ ) and corporate self-regulation treatment ( $m = 5.43$ ) (see Table 2);  $F(2, 179) = 3.26, p < .05$ . These results support H<sub>1c</sub> and H<sub>1d</sub>.

There were no significant correlations between social desirability and parents' responses. Pearson's  $r$  was calculated for these variables:  $r$  (social desirability, attributions) = 0.05,  $p > .10$ ;  $r$  (social desirability, product satisfaction) = 0.15,  $p < .05$ ;  $r$  (social desirability, behavioral intentions) = -0.12,  $p > .05$ . These results indicate that parents did not respond with socially desirable answers. There was some variation in product satisfaction due to social desirability but the degree of this impact was negligent ( $R^2 = 0.02$ ). Similar results were found in a previous study about parents' attitudes and behavior regarding food advertising to children and parental responsibility (Quilliam, 2008). A nonsignificant correlation was also found between locus of control and attributions of responsibility ( $r = 0.06, p > .10$ ); in addition,  $r$  (locus of control, product

satisfaction) = 0.26,  $p < .001$  and  $r$  (locus of control, behavioral intentions) = 0.22,  $p < .05$ . While there was some variation in product satisfaction and behavioral intentions due to parent's high internal locus of control, the degree of this impact is trivial; for instance,  $R^2$  (locus of control, product satisfaction) = 0.06 and  $R^2$  (locus of control, behavioral intentions) = 0.05.

Analyses of variance (ANOVA's) were performed to examine the impact of gender, education, age, and income on attributions of responsibility, product satisfaction, and behavioral intentions (see Table 3). It appears that gender (coded 1 for male and 0 for female) had a significant and positive impact on consumers' attributions of responsibility. Specifically, male consumers had a higher tendency to blame the company for poor-nutritional meal choices ( $m = 3.86$ ) as opposed to their female counterparts ( $m = 3.28$ ;  $p < .05$ ). These results are in line with previous social psychological research, where it was documented that men are subject to self-serving bias (i.e., ascribe blame externally when a negative outcome occurs) to a greater degree than women (Campbell & Sedikides, 1999). Lastly, income had a significant impact on behavioral intentions which illustrates that higher income parents (i.e., \$75,000 and more) were more likely to make similar poor-nutritional meal choices in the future ( $m = 21.22$ ) as opposed to lower income individuals ( $m = 17.72$ ;  $p < .05$ ).

Although it was somewhat expected that political orientation, political party affiliation, and political-social issues views might have a significant impact on parents' attributions of responsibility, for those products that do not meet certain levels of calories, fat, sugar, and sodium, no significant effects were found (see Table 4).

Table 2

*Cell Means for Attributions of Responsibility and Product Satisfaction (Main Study 1)*

Condition	Attributions of responsibility	Product satisfaction
Control Group	3.68**	5.30*
Government Regulation	2.98**	6.09*
Corporate Self-Regulation	3.99**	5.43*

*Note.*  $N = 180$  from all three conditions: control group, government regulation, and corporate self-regulation.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 3

*The Impact of Consumers' Characteristics on the Dependent Variables (Main Study 1)*

Independent variable	<i>df</i>	<i>F</i>	<i>p</i>
Dependent variable: Attributions of responsibility			
Gender	1	6.43	.01
Education	6	1.28	.27
Age	3	0.91	.44
Income	5	0.74	.60
Dependent variable: Product satisfaction			
Gender	1	1.57	.21
Education	6	1.30	.25
Age	3	1.65	.18
Income	5	1.57	.17
Dependent variable: Behavioral intentions			
Gender	1	2.33	.13
Education	6	1.09	.37
Age	3	0.78	.50
Income	5	2.36	.04

*Note.*  $N = 180$  from all three conditions: control group, government regulation, and corporate self-regulation.

Table 4

*The Impact of Consumers' Political Orientation on Attributions (Main Study 1)*

Independent variable	<i>df</i>	<i>F</i>	<i>p</i>
Political orientation	6	0.36	.90
Political party affiliation	6	0.83	.55
Political-social issues views	6	0.64	.70

*Note.* *N* = 180 from all three conditions: control group, government regulation, and corporate self-regulation

**Structural equation modeling.** Structural equation modeling (*SEM*) was used to test the mediation effects and to estimate the standardized path coefficients from Figure 1. The mediating role of attributions of responsibility between government regulation and product satisfaction was tested using the approach by Baron and Kenny (1986) and Holmbeck (1997) (see Appendix K). Path analyses were conducted using the SAS System's CALIS procedure. These analyses used the maximum likelihood method of parameter estimation. One hundred and twenty responses were used in the mediation analyses which include the manipulated conditions. The descriptive statistics for the variables of interest included in this study are presented in Table 5.

In Table 6 the goodness of fit indices for two models are illustrated: the first model (i.e., Model 1), where the impact of government regulation on product satisfaction was assessed, without including attributions of responsibility, and the second model (i.e., Model 2), where the effects of government regulation on product satisfaction were tested through attributions of responsibility. The estimation of the proposed model (Model 2) revealed a non-significant chi-square value,  $\chi^2(5, N = 120) = 7.64, p > .10$ , which

indicates a good fit between the model and data. Values on the normed fit index (NFI) (Bentler & Bonett, 1980), non-normed fit index (NNFI) (Bentler & Bonett, 1980), and comparative fit index (CFI) (Bentler, 1989) over 0.90 revealed an acceptable fit of the proposed model illustrated in Figure 1. Finally, the root-mean squared error of approximation (RMSEA) = 0.06 further supports the good fit between the model and data.

Path coefficients for the proposed model are presented in Table 7. All coefficients were significant at  $p = .05$  or lower and the results showed that the model accounted for 31 % of the variance in product satisfaction (cf., Bitner, 1990), 20 % in attributions of responsibility (cf., Klein & Dawar), and 46 % in behavioral intentions.

As stated before, in Model 1, the impact of government regulation (coded 1 for government regulation and 0 for corporate self-regulation) on product satisfaction was assessed, without accounting for attributions of responsibility (c.f., Baron & Kenny, 1986; Hoyle & Smith, 1994) ( $b = 0.24, p < .01$ ). Model 2 was tested, where the same impact was evaluated; nevertheless, attributions of responsibility were also introduced to predict product satisfaction. Thus, when the mediator (i.e., attributions of responsibility) was included in the model, the impact of government regulation on product satisfaction decreased ( $b = 0.18, p < .05$ ). Two paths were further analyzed; specifically, the impact of government regulation on attributions was found significant ( $b = -0.25, p < .01$ ) and the relationship between attributions of responsibility and product satisfaction was also significant ( $b = -0.21, p < .05$ ). All these coefficients had the expected direction.

The final step in assessing whether there is a mediational effect is to evaluate the fit of the proposed model (i.e., the impact of government regulations on product satisfaction

through attributions of responsibility) under two conditions: (1) when the path between attributions of responsibility and product satisfaction is constrained to zero (attributions are not included) and (2) when this path is not constrained (attributions are included) (Holmbeck, 1997). The difference between the two models chi-squares was calculated to examine whether the model, proposed and presented in Figure 1, provides a significant improvement in fit, relative to the first model; hence, the chi-square difference 5.87 ( $df = 1$ ) was statistically significant at  $p = .01$ . Therefore, the two models are significantly different in fit which illustrates that Model 2 fits the data significantly better than the restricted model or Model 1. Consequently, the relationship between government regulations and product satisfaction was mediated by attributions of responsibility which supports  $H_{1e}$ .

Product satisfaction significantly predicted behavioral intentions ( $b = 0.68, p < .001$ ) and the sign of the coefficient was in the expected direction, providing support for  $H_{1f}$ .

Table 5

*Descriptive Statistics, Main Study 1*

Variable	Mean	Standard deviation	Minimum	Maximum
Product satisfaction	5.76	1.79	1.00	9.00
Attributions of responsibility	3.49	1.56	1.00	7.00
Behavioral intentions	6.25	2.12	1.00	9.00

*Note.*  $N = 120$  from both conditions, government regulation and corporate self-regulation

Table 6

*Goodness of Fit Indices, Main Study 1*

Model	$\chi^2$	<i>df</i>	<i>p</i>	NFI	NNFI	CFI	RMSEA
Model 1 <sup>a</sup>	13.51	6	.04	0.92	0.87	0.95	0.10
Model 2 <sup>b</sup>	7.64	5	.17	0.95	0.95	0.98	0.06

*Note.* *N* = 120. NFI = normed fit index; NNFI = non-normed fit index; CFI = comparative fit index; RMSEA = root-mean squared error of approximation.

<sup>a</sup> The model that does not include attributions of responsibility. <sup>b</sup> The model that includes attributions of responsibility.

Table 7

*Path Coefficients for Main Study 1*

Dependent variable	Independent variable	<i>b</i>	<i>t</i>	<i>R</i> <sup>2</sup>
Product satisfaction <sup>a</sup>	Government regulation <sup>a</sup>	0.24	2.92**	0.25
Product satisfaction <sup>b</sup>	Government regulation <sup>b</sup>	0.18	2.23*	0.31
	Attributions of responsibility	-0.21	-2.52*	
Attributions of responsibility	Government regulation	-0.25	-2.98**	0.20
Behavioral intentions	Product satisfaction	0.68	13.75***	0.46

*Note.* *N* = 120. <sup>a</sup> The model that does not include attributions of responsibility. <sup>b</sup> The model that includes attributions of responsibility.

\* *p* < .05. \*\* *p* < .01. \*\*\* *p* < .001.

## **Main Study 2**

**Design.** This study examines the impact of corporate social responsibility on consumers' attitudes and their subsequent behavior, explained through attributions of responsibility. This was between-subjects experimental design, in which parents were randomly assigned to one of the two experimental conditions: high commitments to combat childhood obesity (the treatment); low commitments to address this major social issue (the control group). Corporate social responsibility was operationalized as McDonald's high commitments toward the problem of childhood obesity (i.e., eliminate advertising of poor-nutritional Happy Meals) versus the company's low commitments (i.e., advertise more nutritious Happy Meals). Similar to Pilot Study 2, this experiment was a self-administered tool.

**Respondents.** The participants were adult consumers with children aged 12 and younger who purchase children's meals from fast food restaurants, in particular McDonalds' Happy Meals. It was discussed earlier that McDonald's is among the most popular fast-food restaurants (Quilliam, 2008; Zagat & Zagat, 2007). In addition, this company has, in fact, engaged in various socially responsible behaviors, as a response to increased concerns about juvenile obesity, especially when it announced its decision to advertise more nutritious Happy Meals (McDonalds, 2011).

From a managerial perspective, it is critical to understand how the company's frequent consumers actually respond to these initiatives; hence, those parents who purchase McDonald's Happy Meals on a frequently basis (i.e., more than once a month) were included in the study.



The parents were recruited from the members of the online panel operated by Qualtrics and financially compensated for their participation. Lastly, the response rate was 9.55 % (cf., Mohr & Webb, 2005).

One hundred and thirty parents participated in this experiment with 65 responses per each condition (cf., Bendapudi & Leone, 2003; Campbell et al., 2000; Quilliam, 2008). Lastly, unequal sample sizes are likely to create complications to the estimation of the effects (Keppel, 1991) and the power may be jeopardized (Pocock, 1983, Shadish et al., 2002); thus, equal sample sizes per each cell were used.

Fifty four percent of the respondents were female and 46 % were male; the majority was between 36 and 45 years old, 33 % were between 26 and 35 years of age, 12 % between 18 and 25, and 12 % were 56 or older. Twenty eight participants (21.54 %) had at least high school education, 32 had some college instruction, whereas 43.08 % of the parents were at least college graduates. The mean household income was in the \$50,000 - \$75,000 range and 73 % were Caucasians, 14 % African Americans, 2 % Asian Americans, 10 % Hispanics, and 1 % other ethnicity. Responses were provided by participants who lived in various states across the United States. When compared to the overall US population, this sample was slightly younger (US Census Bureau, 2012).

**Stimulus materials.** To increase the external validity of the study, a real fast food restaurant brand such as McDonald's and actual CSR strategies were used. One such corporate social responsibility action was taken by McDonald's following California's toy premiums ban. The company thus promoted a healthier Happy Meal as a response to increased concerns about childhood obesity; nevertheless, Happy Meal toys are still provided regardless of the nutritional content of these products.

Another more radical CSR strategy was adopted by Jack in the Box when the firm decided to eliminate its food advertising to children (i.e., elimination of toys with children's meals). Thus, this initiative was selected to illustrate the company's high commitment to address juvenile obesity.

These two CSR actions were presented as news stories in which the company announced its initiative: advertise more nutritious meals (low commitments toward obesity); eliminate promotion with poor-nutritional products (high commitments toward obesity) (see Appendix B).

**Measures and Procedures.** A scale, adapted from Sedikides et al. (2002) and Klein and Dawar (2004), composed of two, 7-point Likert type statements, ranging from 1 (*Myself*) to 7 (*McDonald's*) measured parents' attributions of responsibility. As previously discussed, these items were used to assess whether parents blame the fast food company, or take personal responsibility, for those meals that exceed certain levels of calories, fat, sodium, and sugar. The reliability estimate  $\alpha = 0.80$  was satisfactory, considering the rule of thumb of 0.70 (Hatcher, 1994; Nunnally, 1978).

Company evaluations variable was measured using a scale composed of five, 9-point Likert type statements, scaling from 1 (*very negative*) to 9 (*very positive*), 1 (*very bad*) to 9 (*very good*), 1 (*definitely not*) to 9 (*definitely would*), 1 (*not at all trustworthy*) to 9 (*very trustworthy*), 1 (*not at all concerned about customers*) to 9 (*very concerned about customers*). The first three items were adapted from Folkes and Kamins (1999) and the last two items from Klein and Dawar (2004).

The intention was to measure parents' attitudes toward the company following a negative product outcome (i.e., poor-nutritional meals). A satisfactory reliability estimate was obtained,  $\alpha = 0.92$  (Hatcher, 1994; Nunnally, 1978).

Purchase intentions were measured with three, 7-point Likert type statements, scaling from 1 (*very unlikely*) to 7 (*very likely*) and 1 (*strongly disagree*) to 7 (*strongly agree*). The first item was adapted from Klein and Dawar (2004) and the last two items from Dodds, Monroe, and Grewal (1991) and Sweeney, Soutar, and Johnson (1999). This variable measured parents' intentions to make future purchases from the company, following a negative product outcome ( $\alpha = 0.94$ ). The measures of these variables are presented in Table 8.

The modified 12-item Crowne-Marlowe social desirability scale used in Main Study 1 was included in this study, as well ( $\alpha = 0.75$ ) (Crowne & Marlowe, 1960; Quilliam, 2008). The scale was examined to determine whether it correlates with other variables scales to ensure that social bias does not influence parents' responses. The same locus of control variable was also used, to measure whether the extent to which parents believe they have control over their own behavior affects their attitudes and behavior toward the company, following a negative product outcome. The scale included seven, 7-point Likert type statements, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) ( $\alpha = 0.71$ ) (Levenson, 1981).

Subjects who agreed to participate in the study were randomly assigned to one of the experimental conditions (i.e., low commitments or high commitments to address juvenile obesity). Questions about the reason why parents purchase Happy Meals, their customer brand relationship, nutrition involvement, knowledge and concerns, and attitudes toward

childhood obesity were addressed at the beginning of the survey. A news story was then presented about the company's corporate social responsibility action as a response to increased concerns about childhood obesity. Thus, participants read either about the company's decision to eliminate promotions with poor-nutritional meals or the firm's strategy to advertise healthier meals. A manipulation check was used for these two treatments to ensure the impact of the corporate social responsibility variable. The intention was to evaluate the effectiveness of the experimental manipulations by asking subjects whether: (1) the fast food company is committed to solve major societal problems such as childhood obesity; (2) the firm cares about major societal problems such as childhood obesity. The manipulation checks was composed of two, 9-point Likert-type scale, adapted from Ellen et al. (2006) ( $\alpha = 0.96$ ).

The presentation of a negative product outcome (i.e., poor-nutritional meals) followed by questions that measure attributions of responsibility, company evaluations, and purchase intentions preceded the section that focused on demographics, social desirability, and locus of control. The survey ended by asking parents to indicate the Happy Meal that they would be most likely to choose for their child from various alternatives provided (See Appendix I).

Table 8

*Measures Main Study 2*

Variable	Item	$\alpha$	Source
Attributions of responsibility	Who was most responsible for the poor nutritional value of the Happy Meal you chose and purchased? In your opinion, who should be held most accountable for the poor nutritional value of the Happy Meal you chose and purchased? 1 ( <i>Myself</i> ) and 7 ( <i>McDonald's</i> )	0.80	(Sedikides et al., 2002; Klein & Dawar, 2004)
Company evaluations	How negative or positive would your attitude be toward the fast food company? 1 ( <i>Very negative</i> ) and 9 ( <i>Very positive</i> ) Do you think the fast food company that provided your kids' meal is a bad or good company? 1 ( <i>Very bad</i> ) and 9 ( <i>Very good</i> ) Would you be likely to purchase other products made by that same fast food company? 1 ( <i>Definitely not</i> ) and 9 ( <i>Definitely would</i> ) In your opinion, this fast food company is: 1 ( <i>Not at all trustworthy</i> ) and 9 ( <i>Very trustworthy</i> ) In your opinion, this fast food company is: 1 ( <i>Not at all concerned about customers</i> ) and 9 ( <i>Very concerned about customers</i> )	0.92	(Folkes & Kamins, 1999; Klein & Dawar, 2004)
Purchase intentions	If you were shopping for a kids' meal, how likely would you be to purchase a McDonald's Happy Meal? 1 ( <i>Very unlikely</i> ) and 7 ( <i>Very likely</i> ) I will purchase a kids' meal from McDonald's in the future. There is a strong likelihood that I will buy a McDonald's Happy Meal in the future. 1 ( <i>Strongly disagree</i> ) and 7 ( <i>Strongly agree</i> )	0.94	(Dodds et al., 1991; Klein & Dawar, 2004; Sweeney et al., 1999)

## Results Main Study 2

**Manipulation checks.** The use of manipulations checks was necessary to assess the effectiveness of the two experimental conditions: high commitments versus low commitments toward juvenile obesity. A two item, 9-point Likert-type scale, adapted from Ellen et al. (2006), was used ( $\alpha = 0.96$ ). The results illustrated that participants in the high commitment condition rated the firm as committed to solve major societal problems such as childhood obesity and caring about this problem to a higher degree ( $m = 6.65$ ) relative to those who were assigned to the low commitment condition ( $m = 5.92$ );  $F(1, 128) = 3.09, p < .10$ .

**Multivariate analysis of variance.** The multivariate analysis of variance was used to test whether CSR has the hypothesized impact on attributions of responsibility and company evaluations. It appeared that those parents, who were assigned to the high commitment condition, took more personal responsibility for a negative product outcome (i.e., poor-nutritional meals). In other words, participants' attributions of responsibility to the firm were lower in the high commitment condition ( $m = 3.00$ ) relative to the low commitment treatment ( $m = 3.56$ );  $F(1, 128) = 2.59, p = .11$ . Moreover, when the company was highly committed to solve a major social issue such as childhood obesity, participants' company evaluations were higher ( $m = 6.47$ ) as opposed to when the firm had a lower commitment toward this issue ( $m = 5.63$ );  $F(1, 128) = 8.36; p < .01$  (see Table 9). These results consequently support H<sub>2a</sub> and H<sub>2b</sub>.

Correlations between social desirability and parents' responses were further performed. Pearson's  $r$  was obtained:  $r(\text{social desirability, attributions}) = -0.03, p > .10$ ;  $r(\text{social desirability, company evaluations}) = 0.01, p > .10$ ;  $r(\text{social desirability,$

purchase intentions) =  $-0.14, p > .10$ . Lastly, non-significant correlations were found between locus of control and attributions of responsibility  $r$  (locus of control, attributions) =  $0.07, p > .10$ , locus of control and company evaluations  $r$  (locus of control, company evaluations) =  $0.12, p > .10$ , and locus of control and purchase intentions  $r$  (locus of control, purchase intentions) =  $-0.03, p > .10$ .

The impact of gender, education, age, and income on attributions of responsibility, company evaluations, and purchase intentions was tested with ANOVA's (see Table 10). Gender (coded  $1$  for male and  $0$  for female) had a significant impact on consumers' attributions of blame. That is, male consumers had a higher tendency to ascribe the blame to the company for poor-nutritional meal choices ( $m = 3.67$ ) when compared to their female counterparts ( $m = 2.96$ );  $p < .05$  which confirms previous findings (Campbell & Sedikides, 1999). Education had a significant effect on company evaluations; that is, those participants with a higher level of education (college graduate and higher) had lower company evaluations ( $m = 20.82$ ) than their less educated counterparts ( $m = 24.53$ );  $p < .001$ . Education had also a significant impact on purchase intentions; parents with higher levels of education (college graduate and higher) showed lower purchase intentions ( $m = 18.64$ ) than those less educated participants ( $m = 22.74$ );  $p < .001$  which corroborates the impact of this independent variable on company evaluations. Finally, older consumers reported lower purchase intentions ( $m = 11.05$ ) than younger parents ( $m = 11.41$ );  $p < .10$ .

Table 9

*Cell Means for Attributions of Responsibility and Company Evaluations (Main Study 2)*

Condition	Attributions of responsibility	Company evaluations
High commitments	3.00	6.47**
Low commitments	3.56	5.63**

*Note:*  $N = 130$  from the two conditions: high commitments, and low commitments, to combat childhood obesity.

\*\*  $p < .01$ .

Table 10

*The Impact of Consumers' Characteristics on the Dependent Variables (Main Study 2)*

Independent variable	<i>df</i>	<i>F</i>	<i>p</i>
Dependent variable: Attributions of responsibility			
Gender	1	4.25	.04
Education	6	0.68	.66
Age	3	0.77	.51
Income	5	1.05	.39
Dependent variable: Company evaluations			
Gender	1	0.00	.95
Education	6	3.02	.00
Age	3	0.66	.58
Income	5	1.21	.31
Dependent variable: Purchase intentions			
Gender	1	0.34	.56
Education	6	3.21	.00
Age	3	2.18	.09
Income	5	0.61	.69

*Note:*  $N = 130$  from the two conditions: high commitments, and low commitments, to combat childhood obesity.



**Structural equation modeling.** The mediation effects and standardized path coefficients from Figure 2 were examined via *SEM*. The approach recommended by Baron and Kenny (1986) and Holmbeck (1997) was considered to evaluate attributions of responsibility as a mediator between corporate social responsibility and company evaluations (see Appendix K). Path analyses were conducted using the SAS System's CALIS procedure. These analyses used the maximum likelihood method of parameter estimation. There were 130 responses used in the mediation analysis. The descriptive statistics for the variables of interest included in this study are presented in Table 11.

Two models were estimated: Model 1, where the impact of corporate social responsibility on company evaluations was assessed, with no attributions of responsibility included and Model 2 (the proposed model), where this relationship was evaluated through attributions. The goodness of fit indices for these models are presented in Table 12. When Model 2 was estimated, the results illustrated a non-significant chi-square value,  $\chi^2(5, N = 130) = 5.03, p > .10$ , which indicates a good fit between the model and data. Values on NFI (Bentler & Bonett, 1980), NNFI (Bentler & Bonett, 1980), and CFI (Bentler, 1989) over 0.90 and RMSEA < 0.06 (Hu & Bentler, 1999) revealed an acceptable fit of the proposed model illustrated in Figure 2.

The results further showed that all path coefficients were significant at  $p = .05$  or lower and the model accounted for 30 % of the variance in company evaluations, 34 % in attributions of responsibility (cf., Klein & Dawar, 2004), and 25 % in purchase intentions. The path coefficients for the proposed model are presented in Table 13.

When Model 1 was estimated, the impact of CSR (coded 1 for high commitments and 0 for low commitments) on company evaluations was found significant and in the

expected direction ( $b = 0.15, p < .05$ ); this was the first step recommended for testing the mediation effects (c.f., Baron & Kenny, 1986; Hoyle & Smith, 1994). Model 2 was further estimated, where the impact of CSR on company evaluations was examined through attributions of responsibility. When the mediator (i.e., attributions of responsibility) was included in the model, the effects of CSR decreased ( $b = 0.12, ns$ ). The impact of CSR on attributions was also found significant ( $b = -0.14, p < .05$ ) and the relationship between attributions of responsibility and company evaluations was also significant ( $b = -0.18, p < .05$ ). All these coefficients had the expected direction.

A final step in testing the mediation effects was to evaluate the fit of the full model (i.e., the impact of CSR on company evaluations through attributions of responsibility) under two conditions: (1) when the path between attributions of blame and company evaluations is constrained to zero (attributions are not included) and (2) when this path is not constrained (attributions are included) (Holmbeck, 1997). To assess whether Model 2 provides a significant improvement in fit, relative to Model 1, the difference between the two models chi-squares was calculated. The chi-square difference 3.79 ( $df = 1$ ) was statistically significant at  $p = .05$ . Thus, the two models are significantly different in fit, which illustrates that Model 2 fits the data significantly better than Model 1. All these results illustrate that corporate social responsibility has a significant impact on company evaluations, through attributions of responsibility for a negative product outcome, which provides support for H<sub>2c</sub>.

Finally, company evaluations significantly predicted purchase intentions ( $b = 0.50, p < .001$ ) and the sign of the coefficient was in the expected direction; these results show further support for H<sub>2d</sub>.

Table 11

*Descriptive Statistics, Main Study 2*

Variable	Mean	Standard deviation	Minimum	Maximum
Company evaluations	6.05	1.71	1.00	9.00
Attributions of responsibility	3.28	1.97	1.00	7.00
Purchase intentions	5.77	1.21	1.00	7.00

*Note:*  $N = 130$  from both conditions, high commitments, and low commitments, to combat childhood obesity.

Table 12

*Goodness of Fit Indices, Main Study 2*

Model	$\chi^2$	<i>df</i>	<i>p</i>	NFI	NNFI	CFI	RMSEA
Model 1 <sup>a</sup>	8.82	6	.18	0.94	0.95	0.98	0.06
Model 2 <sup>b</sup>	5.03	5	.41	0.97	0.99	0.99	0.00

*Note:*  $N = 130$ . NFI = normed fit index; NNFI = non-normed fit index; CFI = comparative fit index; RMSEA = root-mean squared error of approximation.

<sup>a</sup> The model that does not include attributions of responsibility. <sup>b</sup> The model that includes attributions of responsibility.

Table 13

*Path Coefficients for Main Study 2*

Dependent variable	Independent variable	<i>b</i>	<i>t</i>	<i>R</i> <sup>2</sup>
Company evaluations <sup>a</sup>	Corporate social responsibility <sup>a</sup>	0.15	1.98*	0.27
Company evaluations <sup>b</sup>	Corporate social responsibility <sup>b</sup>	0.12	1.63	0.30
	Attributions of responsibility	-0.18	-1.98*	
Attributions of responsibility	Corporate social responsibility	-0.14	-1.98*	0.34
Purchase intentions	Company evaluations	0.50	7.55***	0.25

Note: *N* = 130. <sup>a</sup> The model that does not include attributions of responsibility. <sup>b</sup> The model that includes attributions of responsibility.

\* *p* < .05. \*\*\* *p* < .001.

**Main Study 3**

**Design.** The third study examined, in online advertising settings, the impact of corporate social responsibility on consumers' attitudes and their subsequent behavior, with attributions of responsibility as a mediator of this relationship. The experiment was between-subjects and the participants were randomly assigned to one of the two experimental conditions: high commitments to combat childhood obesity (the treatment); low commitments toward this major social issue (control group). Corporate social responsibility was differently operationalized in this study; that is, the elimination of poor-nutritional products, from advergames, by an unknown cereals company, illustrated the high commitment to support childhood obesity, whereas the incorporation of healthy

lifestyle messages, in these games, denoted the company's low commitment. Main Study 3 was conducted as a self-administered online survey.

**Respondents.** Adult consumers with children aged 12 or younger participated in this experiment. They were recruited from the online panel administered by Qualtrics and financially rewarded for their participation; the response rate was 8.35 % (cf., Mohr & Webb, 2005).

There were 110 valid responses considered for this study with 55 participants per each condition (i.e., control group, treatment) (cf., Bendapudi & Leone, 2003; Campbell et al., 2000; Quilliam, 2008). Similarly to the previous experiments, in order to avoid complications to the effects estimation (Keppel, 1991) and not jeopardize the power (Pocock, 1983; Shadish et al., 2002), equal sample sizes per each condition were used.

The sample had 53 % female and 47 % male respondents; 83.64 % were younger than 45 years old, whereas 16.36 % were 46 years old or older. Participants lived in various states across the United States. Fifty percent of the participants had attended at least college, 32.73 % had some college instruction, and 17.27 % had at least high school education. The mean household income was \$50,000 - \$75,000 per year; 71.82 % were Caucasians, 11.82 % African Americans, 8.18 % Asian Americans, and 8.18 % Hispanics or other ethnicity. The sample was somewhat younger and with a higher level of education when compared to the overall US population (US Census Bureau, 2012).

**Stimulus materials.** A fictitious cereals brand (i.e., Kids' Cereals) was used; nevertheless, actual CSR strategies adopted by major food marketers in online advertising settings were included in the study. An example is the companies' commitment to eliminate those poor-nutritional products and incorporate better-for-you foods (e.g.,

products that have fewer calories and are lower in fats, sugar, and sodium) in advergimes. Kellogg's has in fact committed to remove those products that do not meet certain nutritional guidelines for a healthy diet and incorporate better-for-you food and beverage products in online interactive games (CBBB, 2009).

Another approach, taken recently by various corporations, as a response to increased concerns about juvenile obesity, is the use of healthy lifestyle messages, in interactive games targeted to children (CBBB, 2009). Kellogg's also considered incorporating healthy lifestyle messages in their advergimes (e.g., "Getting online is great but so is getting outside to play! See you in 15 minutes with some ideas about how to get your move on") (CBBB, 2009, p. 48). Lastly, Kraft Foods uses healthy lifestyle messaging such as "Be a player. Get up and play an hour a day!" (CBBB, 2010, p. 6).

Participants will read about one of these two CSR initiatives: the elimination of poor-nutritional products from online advertising (high commitments to combat childhood obesity) or the incorporation of healthy lifestyle messages in advergimes (low commitments to solve this epidemic) (see Appendix C).

**Measures and Procedures.** Attributions of responsibility were measured using a scale composed of two, 7-point Likert type statements, ranging from 1 (*Myself*) to 7 (*Kids' Cereals*) (Klein & Dawar, 2004; Sedikides et al., 2002). These items were used to assess whether parents blame the cereals company, or take personal responsibility, for those products that exceed certain levels of calories, sodium, and sugar. The reliability estimate was satisfactory ( $\alpha = 0.82$ ) (Hatcher, 1994; Nunnally, 1978).

A five, 9-point Likert type scale was used to measure company evaluations ( $\alpha = 0.95$ ), ranging from 1 (*very negative*) to 9 (*very positive*), 1 (*very bad*) to 9 (*very good*), 1

(*definitely not*) to 9 (*definitely would*), 1 (*not at all trustworthy*) to 9 (*very trustworthy*), 1 (*not at all concerned about customers*) to 9 (*very concerned about customers*) (Folkes & Kamins, 1999; Klein & Dawar, 2004). Purchase intentions ( $\alpha = 0.95$ ) were measured with three, 7-point Likert type statements, scaling from 1 (*very unlikely*) to 7 (*very likely*) and 1 (*strongly disagree*) to 7 (*strongly agree*) (Dodds et al., 1991; Klein & Dawar, 2004; Sweeney et al., 1999). The measures of these variables are presented in Table 14.

Lastly, social desirability was measured using the modified 12-item Crowne-Marlowe social desirability scale ( $\alpha = 0.71$ ) (Crowne & Marlowe, 1960; Quilliam, 2008) and locus of control with a scale ( $\alpha = 0.75$ ) comprised of seven, 7-point Likert type statements, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) ( $\alpha = 0.71$ ) (Levenson, 1981).

Participants were randomly assigned to one of the two experimental conditions (i.e., low commitments or high commitments to address childhood obesity). The survey started with questions about the frequency of buying cereals, the reasons why parents purchase cereals, the frequency of using free online videogames provided by food companies, nutrition involvement, knowledge and concerns, and attitudes toward childhood obesity.

The next section of the survey presented parents with a news story about a fictitious cereals company's corporate social responsibility action as a response to increased concerns about childhood obesity. Some of the parents read either about the company's decision to eliminate poor-nutritional products, from online advertising, or the decision to incorporate healthy lifestyle messages, in advergaming. To evaluate the effectiveness of the experimental manipulations, the subjects were asked whether: (1) the cereals company is committed to solve major societal problems such as childhood obesity; (2)

the firm cares about major societal problems such as childhood obesity. A two, five-point Likert-type scale, adapted from Ellen et al. (2006) was used as a manipulation check ( $\alpha = 0.91$ ).

The presentation of a negative product outcome, followed by posttest questions that measured attributions of responsibility, company evaluations, and purchase intentions, preceded the demographics, social desirability, and locus of control section which concludes the experiment (See Appendix J).



Table 14

*Measures Main Study 3*

Variable	Item	$\alpha$	Source
Attributions of responsibility	Who was most responsible for the poor nutritional value of the Kids' Cereals you chose and purchased? In your opinion, who should be held most accountable for the poor nutritional value of the Kids' Cereals you chose and purchased? 1 ( <i>Myself</i> ) and 7 ( <i>Kids' Cereals</i> )	0.82	(Klein & Dawar, 2004; Sedikides et al., 2002)
Company evaluations	How negative or positive would your attitude be toward this cereals company? 1 ( <i>Very negative</i> ) and 9 ( <i>Very positive</i> ) Do you think the company that provided the cereals is a bad or good company? 1 ( <i>Very bad</i> ) and 9 ( <i>Very good</i> ) Would you be likely to purchase other products made by this company? 1 ( <i>Definitely not</i> ) and 9 ( <i>Definitely would</i> ) In your opinion, this food company is: 1 ( <i>Not at all trustworthy</i> ) and 9 ( <i>Very trustworthy</i> ) In your opinion, this cereals company is: 1 ( <i>Not at all concerned about customers</i> ) and 9 ( <i>Very concerned about customers</i> )	0.95	(Folkes & Kamins, 1999; Klein & Dawar, 2004)
Purchase intentions	If you were shopping for kids' cereals, how likely would you be to purchase Kids' Cereals? 1 ( <i>Very unlikely</i> ) and 7 ( <i>Very likely</i> ) I will purchase cereals from Kids' Cereals in the future. There is a strong likelihood that I will buy cereals from Kids' Cereals in the future. 1 ( <i>Strongly disagree</i> ) and 7 ( <i>Strongly agree</i> )	0.95	(Dodds et al., 1991; Klein & Dawar, 2004; Sweeney et al., 1999)

### Results Main Study 3

**Manipulation checks.** A two item, 9-point Likert-type scale adapted from Ellen et al. (2006) was used ( $\alpha = 0.91$ ) for manipulation checks. Although the results were not significant, it appeared that participants, in the high commitment condition, had a higher tendency to rate the firm as committed to solve major societal problems such as childhood obesity and caring about this problem ( $m = 6.45$ ), relative to those parents who were assigned to the low commitment condition ( $m = 6.15$ );  $F(1, 108) = 0.54, p > .10$ .

**Multivariate analysis of variance.** The results from MANOVA illustrated that those parents who were assigned to the high commitment condition blamed the company for those products that exceeded certain levels of calories, sodium, and sugar less ( $m = 3.08$ ) than the participants from the low commitment condition ( $m = 3.76$ );  $F(1, 108) = 3.33, p < .10$ . Company evaluations were also higher for those who were exposed to the firm's action that illustrated higher commitments to combat childhood obesity ( $m = 5.37$ ) than those who were assigned to the low commitment treatment ( $m = 4.51$ );  $F(1, 108) = 7.78; p < .01$  (See Table 15). These results consequently support  $H_{3a}$  and  $H_{3b}$ .

Pearson's  $r$  was obtained:  $r$  (social desirability, attributions) = 0.02,  $p = .84$ ;  $r$  (social desirability, company evaluations) = 0.01,  $p > .10$ ;  $r$  (social desirability, purchase intentions) = -0.07,  $p > .10$ . Thus, parents did not use socially acceptable answers. Lastly, non-significant correlations were found between locus of control and attributions of responsibility  $r$  (locus of control, attributions) = 0.11,  $p > .10$ , locus of control and company evaluations  $r$  (locus of control, company evaluations) = 0.12,  $p > .10$ , and locus of control and purchase intentions  $r$  (locus of control, purchase intentions) = 0.11,  $p > .10$ .

The effects of gender, education, income, and age on attributions and other two dependent variables (i.e., company evaluations, purchase intentions) were further tested with ANOVA (see Table 16). Education had a significant impact on attributions of responsibility for poor-nutritional meals. In particular, individuals with higher levels of education (college graduate and higher) attributed less blame to the company ( $m = 7.63$ ) than those participants who had lower levels of education ( $m = 9.55$ );  $p < .05$ . Another variable that significantly affected attributions was income; specifically, higher income individuals (\$75,000 and higher) ascribed less responsibility for their poor-nutritional meal choices to the company ( $m = 8.77$ ) as opposed to those participants with lower levels of income ( $m = 11.14$ );  $p < .10$ . The results further showed higher company evaluations for men ( $m = 5.29$ ) as opposed to female participants ( $m = 4.63$ );  $p < .05$ .

Table 15

*Cell Means for Attributions of Responsibility and Company Evaluations (Main Study 3)*

Condition	Attributions of responsibility	Company evaluations
High commitments	3.08 <sup>+</sup>	5.37 <sup>**</sup>
Low commitments	3.76 <sup>+</sup>	4.51 <sup>**</sup>

*Note:*  $N = 110$  from the two conditions: high commitments, and low commitments, to combat childhood obesity.

<sup>+</sup>  $p < .10$ . <sup>\*\*</sup>  $p < .01$ .

Table 16

*The Impact of Consumers' Characteristics on the Dependent Variables (Main Study 3)*

Independent variable	<i>df</i>	<i>F</i>	<i>p</i>
Dependent variable: Attributions of responsibility			
Gender	1	0.13	.72
Education	5	3.07	.01
Age	3	0.89	.45
Income	5	2.05	.08
Dependent variable: Company evaluations			
Gender	1	4.28	.04
Education	5	0.20	.96
Age	3	0.26	.85
Income	5	0.63	.68
Dependent variable: Purchase intentions			
Gender	1	1.04	.31
Education	5	0.48	.79
Age	3	0.64	.59
Income	5	0.83	.53

*Note:*  $N = 110$  from the two conditions: high commitments, and low commitments, to combat childhood obesity.

**Structural equation modeling.** Similar to Main Study 2, *SEM* was used to test the mediation effects and to estimate the standardized path coefficients from Figure 3. Attributions of responsibility were examined as a mediator of the relationship between corporate social responsibility and company evaluations, using the approach recommended by Baron and Kenny (1986) and Holmbeck (1997) (See Appendix K). Path analyses were conducted using the SAS System's CALIS procedure. These analyses used the maximum likelihood method of parameter estimation. One hundred and ten responses were used in the mediation analysis; the descriptive statistics for the variables of interest are presented in Table 17.

The first estimated model (i.e., Model 1) examined the impact of CSR on company evaluations, without attributions of responsibility; the proposed model (i.e., Model 2) evaluated this relationship through attributions. The goodness of fit indices for these models are presented in Table 18. When Model 2 was estimated, the results illustrated a non-significant chi-square value,  $\chi^2(5, N = 110) = 1.57, p > .10$ , which indicates a good fit between the model and data. Values on NFI (Bentler & Bonett, 1980), NNFI (Bentler & Bonett, 1980), and CFI (Bentler, 1989) over 0.90 and RMSEA  $< 0.06$  (Hu & Bentler, 1999) revealed an acceptable fit of the proposed model, illustrated in Figure 3.

All path coefficients were significant at  $p = .05$  or lower and the model accounted for almost 20 % of the variance in company evaluations, 30 % in attributions of responsibility (cf., Klein & Dawar, 2004), and approximately 40 % in purchase intentions. The path coefficients for the proposed model are presented in Table 19.

The first step recommended for testing the mediation effects was to assess the impact of CSR (coded 1 for high commitments and 0 for low commitments) on company evaluations (c.f., Baron & Kenny, 1986; Hoyle & Smith, 1994), without attributions; the results illustrated a significant relationship. Furthermore, the impact of CSR was in the expected direction ( $b = 0.24, p < .01$ ). When the effects of CSR were assessed, through attributions, in Model 2, the impact of CSR decreased ( $b = 0.20, p < .05$ ). Corporate social responsibility had also a significant impact on attributions ( $b = -0.18, p < .05$ ) and the relationship between attributions of responsibility and company evaluations was also significant ( $b = -0.25, p < .05$ ). All these coefficients had the expected signs.

The fit of the proposed model was evaluated under two conditions, as a final step in testing the mediation effects: (1) when the path between attributions of responsibility and

company evaluations is constrained to zero (attributions are not included) and (2) when this path is not constrained (attributions are included) (Holmbeck, 1997). The difference between the two models chi-squares was calculated, to evaluate whether Model 2 provides a significant improvement in fit. The chi-square difference 5.94 ( $df = 1$ ) was statistically significant at  $p = .01$ . Thus, the two models are significantly different in fit, which evidences that Model 2 fits the data significantly better than Model 1.

The results discussed earlier denote that corporate social responsibility had a significant impact on consumers' company evaluations, through attributions of responsibility, which provides support for H<sub>3c</sub>. Company evaluations also significantly predicted purchase intentions ( $b = 0.62, p < .001$ ) and the sign of the coefficient was in the expected direction, providing support for H<sub>3d</sub>.

Table 17

*Descriptive Statistics, Main Study 3*

Variable	Mean	Standard deviation	Minimum	Maximum
Company evaluations	4.94	1.68	1.00	9.00
Attributions of responsibility	3.42	1.98	1.00	7.00
Purchase intentions	3.99	1.58	1.00	7.00

Note:  $N = 110$  from both conditions: high commitments, and low commitments, to combat childhood obesity.

Table 18

*Goodness of Fit Indices, Main Study 3*

Model	$\chi^2$	<i>df</i>	<i>p</i>	NFI	NNFI	CFI	RMSEA
Model 1 <sup>a</sup>	7.51	6	.28	0.94	0.96	0.99	0.05
Model 2 <sup>b</sup>	1.57	5	.91	0.99	1.00	1.00	0.00

Note: *N* = 110. NFI = normed fit index; NNFI = non-normed fit index; CFI = comparative fit index; RMSEA = root-mean squared error of approximation.

<sup>a</sup> The model that does not include attributions of responsibility. <sup>b</sup> The model that includes attributions of responsibility.

Table 19

*Path Coefficients for Main Study 3*

Dependent variable	Independent variable	<i>b</i>	<i>t</i>	<i>R</i> <sup>2</sup>
Company evaluations <sup>a</sup>	Corporate social responsibility <sup>a</sup>	0.24	2.81 <sup>**</sup>	0.14
Company evaluations <sup>b</sup>	Corporate social responsibility <sup>b</sup>	0.20	2.28 <sup>*</sup>	0.18
	Attributions of responsibility	-0.25	-2.52 <sup>*</sup>	
Attributions of responsibility	Corporate social responsibility	-0.18	-2.2 <sup>*</sup>	0.30
Purchase intentions	Company evaluations	0.62	10.67 <sup>***</sup>	0.39

Note: *N* = 110. <sup>a</sup> The model that does not include attributions of responsibility. <sup>b</sup> The model that includes attributions of responsibility.

\* *p* < .05. \*\* *p* < .01. \*\*\* *p* < .001.

## Chapter 5

### Discussion

#### Results Discussion

Two pilot studies and three main experiments were conducted to examine the impact of government regulations and corporate social responsibility on consumers' attitudes and behavior. These studies were reviewed and accepted by the Institutional Review Board at Arizona State University (see Appendix L). The results from these experiments supported the hypotheses discussed previously. Lastly, these studies provide several insights on the importance of attributions of responsibility, for a negative product outcome, and its antecedents (i.e., moderators), and consequences, in consumer decision making.

The results of Main Study 1 revealed that government regulations (i.e., toy premiums ban) led to higher satisfaction with poor-nutritional meals, which ultimately caused enhanced behavioral intentions with regard to these products (i.e., increased likelihood of making similar low-nutritional meal choices in the future). These results support  $H_{1c}$ ,  $H_{1d}$ , and  $H_{1f}$ .

It was essentially demonstrated that a toy premium ban can ultimately enhance parents' attitudes and behavior toward products that exceed certain levels of calories, fat, sodium, and sugar, because their attributions of responsibility, for their poor-nutritional meal choices, change. In other words, as predicted in  $H_{1a}$  and  $H_{1b}$ , parents have a lower tendency to blame the company for those food selections that do not meet certain nutritional levels, when there is a toy ban; this further leads to a higher satisfaction with the products they purchase. These results highlight the mediation effects of attributions of blame between government regulations and product satisfaction, which supports  $H_{1e}$ .



In contrast, corporate self-regulation led consumers to make more attributions of responsibility to the company and thus, their levels of satisfaction with poor-nutritional meals were lower; lastly, consumers were less likely to make similar poor-nutritional food selections in the future.

In sum, government regulations contributed significantly and negatively to consumers' perceptions of responsibility for poor-nutritional meal choices; thus, government regulation was a significant moderator of consumers' self-serving bias. Parents took more personal responsibility, and ascribed less blame to the company, for their poor-nutritional meal choices, which triggered higher satisfaction with, and subsequent enhanced behavioral intentions toward, these products.

Main Study 2 and Main Study 3 examined how corporate social responsibility and attributions of responsibility impact consumers' company evaluations, following a negative product outcome (i.e., poor-nutritional meal choices). The mediating role of attributions of responsibility in CSR's ability to impact consumers' attitudes (i.e., company evaluations) was established.

The findings in Main Study 2 suggest that attributions of blame for poor-nutritional meals were strongly affected by CSR; these attributions have further impacted company evaluations, which in turn had a significant influence on purchase intentions.

As predicted in H<sub>2a</sub>, the results illustrated that a socially responsible action, that denotes a corporation's high commitments to combat a major social issue such as childhood obesity, may trigger less blame to the company for a negative product outcome. Conversely, when companies have a lower commitment to a certain cause, consumers have the tendency to find the firms as more responsible for a negative

encounter. Therefore, when food marketers decide to embrace radical changes such as the elimination of advertising with children's meals that exceed set levels of calories, fat, sodium, and sugar, company evaluations are likely to increase; on contrary, when a company decides to advertise healthier meals, consumers' ratings are lower, which supports H<sub>2b</sub>. As predicted in H<sub>2d</sub>, higher company evaluations triggered enhanced purchase intentions.

The results essentially illustrate that CSR is a significant moderator of consumers' self-serving bias; lastly, the effects of CSR onto company evaluations was significantly explained by attributions of responsibility, which supports H<sub>2c</sub>.

Main Study 3 replicated and extended the results of Main Study 2. A fictitious company was used to eliminate the potential contamination of the CSR's manipulation by preexisting associations with a well-known food company (Klein & Dawar, 2004) such as McDonald's, which may have occurred in Main Study 2. Different product category (i.e., cereals) and advertising setting (i.e., online advertising) were used to ensure the generalizability of the previous findings.

This study validated the results found in Main Study 2. Specifically, it illustrated that not all CSR initiatives are likely to impact consumers' attributions and attitudes in the same way. Thus, when firms are perceived as seriously committed to address major social issues such as juvenile obesity, consumers find them less responsible for a negative product outcome and, as a result, company evaluations are higher. These results supported H<sub>3a</sub> and H<sub>3b</sub>. As predicted in H<sub>3d</sub>, company evaluations significantly predicted purchase intentions; therefore, higher company evaluations triggered enhanced intentions to purchase from the same company in the future.

The results also evidenced the mediated effects (through attributions of responsibility) of CSR on company evaluations, supporting H<sub>3c</sub>.

### **Limitations**

A limitation of this research may stem from the use of scenario-based experiments. For instance, subjects were asked to think about the last time they visited McDonald's; then, they were asked to role-play by thinking about a hypothetical negative product outcome (i.e., their food choice exceeded certain levels of calories, fat, sugar, and sodium).

Nevertheless, this was not a manipulated variable of interest in the current research. In addition, "actors" rather than "observers" were used, when parents were asked about their own levels of attributions of responsibility for a past hypothetical poor-nutritional meal choice. Therefore, the overattributions effects are less likely to occur when individuals make attributions about their own behavior than when they make inferences about others' behavior (Roedelein, 2006). This essentially provides a reliable test of the hypotheses.

The use of news stories, announcing a government regulation or a company's corporate social responsibility strategy, rather than the actual ordinance or advertising stimuli, may cause some methodological limitations (Quilliam, 2008). Nonetheless, a real company and recent ordinances, and corporate social responsibility strategies were used in the experiments. In addition, between the time the studies were proposed and created and the period when they were actually conducted, considerable advertising about the California toy ban may have occurred. McDonald's and other food companies have also engaged, during the same period of time, in various forms of CSR (i.e., McDonald's promotion of more nutritious Happy Meals, Jack in the Box's elimination of kids' meals toys). Thus, parents' responses may actually reflect real-life reactions or their true

answers to real initiatives intended to combat childhood obesity. The results may be generalized to real-life situations; consequently, the current research is likely to possess external validity.

Another limitation of the current research may stem from the fact that participants were limited to the panel of consumers operated by Qualtrics. This panel is not random, which does not allow the author to use a random sample of the parent population of the United States. Nevertheless, the purposive sampling of heterogeneous instances<sup>1</sup> is one of the most common sampling methods used in experiments for facilitating generalizations (Shadish et al., 2002). Moreover, a causal relationship that holds, given the sample heterogeneity, will have greater strength and consequently, “is presumed to have greater generalizability by virtue of that strength” (Shadish et al., 2002, p. 377). The results also demonstrated that a main effect for treatments occurred, in spite of the heterogeneity of the sample, which is one benefit for the study’s external validity (Shadish et al., 2002).

Replicating this research in a field experiment is likely to provide a conservative test of the current hypotheses. While the present research shows that a government regulation may rather cause parents to make poor-nutritional food choices, a field research should be conducted to assess whether these effects truly occur.

The current research also showed that CSR can positively impact consumers’ attitudes toward a company, which subsequently affected their purchase intentions, but a question may arise as to whether these results may be different, depending upon customers’ relationship with the firm. It would be relevant to assess when these effects

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<sup>1</sup> Purposive sampling of heterogeneous instances requires specific characteristics of the individuals to which the researcher wants to generalize, and then select a sample, which matches this target (i.e., parents with one or more children aged 12 or younger, who are the primary food shoppers); the sample has to be heterogeneous (e.g., age, income, education, etc. vary widely) (Shadish et al., 2002).

may occur and whether customer brand relationship plays a major role in this way. Thus, a future study should examine a model with both mediation and moderation. Specifically, the mediation concerning company evaluations, following a negative product outcome, should be interactional (Baron & Kenny, 1986); that is, CSR and customer brand relationship interaction should predict attributions of responsibility, and attributions of responsibility and customer brand relationship, in turn, should predict company evaluations. In other words, attributions of responsibility may mediate the effects of CSR on company evaluations depending on customer brand relationship.

Past research showed that close partners are refrained from self-serving bias, which means that they are more likely to take personal responsibility for a negative outcome (Sedikides et al., 1998). Thus, the impact of CSR onto attributions of responsibility may be different for those customers who have a close relationship with a company than those who have a distant brand relationship; additionally, CSR may significantly impact company evaluations depending on the level of customers' brand relationship.

### **Contributions**

Marketing Science Institute (2010) called for research on consumers' responses to social issues, regulatory changes, and corporate behavior; moreover, better frameworks to respond to numerous opportunities and challenges derived from these social issues are quintessential for managers. The current research responds to these calls by presenting a conceptual framework of consumer responses to government regulations and corporate social responsibility initiatives with regard to a major social issue such as childhood obesity. Most importantly, the model advances a psychological mechanism which explains these reactions. The results from testing this framework are intended, on the one

hand, to help policy makers adopt legislative measures, which encourage rather than compel and undermine personal responsibility and, on the other hand, to assist managers better respond to the challenges and opportunities arising from social concerns about childhood obesity.

This research differs from prior studies on the effects of a government ban and CSR actions on consumer behavior in several important ways. Previous studies that investigated how consumers respond to specific product/service restrictions built primarily on reactance theory, reporting that the regulators' interventions are rather limiting individuals' autonomy and thus reactance is spurred (Bushman, 1998; Clee & Wicklund, 1980; Jeffrey et al., 1990; Mazis et al., 1973; Unger et al., 1999). However, these prior studies have not been linked to the mediation effects of attributions of responsibility; therefore, the present research is the first, in the marketing literature, to explain consumers' reactions to government regulations by their causal inferences.

Nutrition and consumer advocacy groups, and policy makers addressed multiple calls for government intervention in the fight against juvenile obesity (Hellmich, 2006; Martin, 2006; Teinowitz, 2005); thus, it is important to understand how consumers respond to such regulations and why these responses occur. Understanding the way that parents attribute responsibility for their children's meals choices can help better comprehend why certain government policies may have unintended consequences, despite considerable support from consumer advocates. This is yet more relevant as numerous other communities, throughout California and the nation, are observing with great interest the Santa Clara and San Francisco ordinances.

It appears that there is a gap in the CSR literature with regard to how and why consumers respond to certain CSR actions (Sen & Bhattacharya, 2001), especially in food marketing contexts. The current research can help bridge this gap as it addresses the way that individuals assume personal responsibility for their own food choices, as a response to CSR, which can take the form of a company's high or low commitments to combat childhood obesity. These attributions of responsibility impact subsequent company evaluations, which can help food marketers better understand where their challenges and opportunities, arising from social issues such as childhood obesity, lie. Furthermore, considering that numerous companies have recently engaged in promoting a healthier lifestyle for children and changing their marketing and advertising practices, to help parents tackle the obesity pandemic, it is fundamental to understand whether these corporate actions indeed lead to positive consumer attitudes and behaviors.

In spite of considerable attention to CSR, there is little research on the implementation of specific CSR activities (Bhattacharya, Korschun, & Sen, 2009; Pelozo & Shang, 2011). Thus, the present model fills this gap by proposing that, when companies are associated with high levels of commitment to the cause of obesity, consumers report more positive company evaluations and purchase intentions, because they are inclined to hold the firm less accountable whenever a negative product outcome occurs.

Lastly, the finding that government regulations and corporate social responsibility have a direct impact on attributional judgments illustrates a new and remarkable role for these constructs; namely, government regulation and corporate social responsibility are

evidenced as moderators of attributions of responsibility for a negative product outcome or consumers' self-serving bias.

**Theoretical implications.** This dissertation contributes to the consumer behavior literature in a number of ways. This is the first study to offer a perspective, based on attributions of responsibility, per se, to explain the mechanism that drives consumers' responses to governmental regulations and corporate social responsibility. The current research differs from prior studies, on the impact of government regulations on consumers' attitudes and behavior (e.g., Bushman, 1998; Clee & Wicklund, 1980; Jeffrey et al., 1990; Mazis et al., 1973; Ringold, 2002; Unger et al., 1999), in that it addresses reactions to a governmental intervention through attributional processes. It was discussed earlier that reactance theory was extensively used to explicate consumers' unintended reactions to protection regulations and, while the relevance of this psychological process is acknowledged, the present studies are designed to test hypotheses that may not necessarily be explained by reactance theory.

When people are forced by others to engage in certain behaviors they feel as if they lose their personal freedom to choose, which is a "valued psychological commodity;" thus, reactance theory posits that these individuals most likely will deviate from expectations such that they can reassert their lost freedom of choice (Conway & Schaller, 2005). The current conceptual framework however includes hypotheses that cannot be explained in this manner. First, although children' meals toys are banned, parents may still purchase the same food item, without a free toy, or paying for the toy. That is, parents will continue to have the freedom to select their food products, regardless of the nutritional content; therefore, there must be a different psychological mechanism that can



explicate their deviance. Specifically, this ban is likely to trigger more personal responsibility for the poor nutritional content of children's meals; this in turn causes deviant responses (i.e., more positive attitudes and behavior toward these meals).

Second, reactance and attribution theories predict indeed the same outcomes (deviance); nonetheless, these two psychological approaches provide "different accounts of the origins of deviance" (Conway & Schaller, 2005, p. 313). For instance, reactance is more emotionally-driven (Knowles & Linn, 2004), which may imply that parents persist in buying potential harmful products for their children just to rebel against this policy, a hardly acceptable perspective. Conversely, attribution provides a cognitive reason for deviance; this suggests that parents may deviate due to factors (e.g., government regulation) that influence their attributional judgments. Hence, the unique explanatory value of the attribution model is tested here.

Finally, the mediating role of attributions of responsibility is particularly important here, especially when examining consumers' post-consumption reactions, because these cognitive processes are likely to have a lasting impact on consumer behavior (Weiner 2000). This research essentially suggests that government regulations, despite their good intentions, may be detrimental in changing parents' attitudes and behavior toward unhealthy food products, due to unexpected attributions of blame for the nutritional value of their children's meals. A unique view on the power of attributions of responsibility is thus provided; most importantly, a new conceptualization of the government regulation construct is evidenced (i.e., moderator of attributions of responsibility/self-serving bias).

The current research further contributes to the literature on corporate social responsibility in a number of ways. First, there is a gap in the CSR literature regarding

the way that consumers respond to different corporate social responsibility actions (Sen & Bhattacharya, 2001), especially in food marketing settings. Thus, the current research provides a thorough examination of consumers' responses to corporate social responsibility actions that illustrate high commitments to the cause of juvenile obesity (i.e., eliminate advertising with poor-nutritional meals) versus low commitments (i.e., advertise more nutritious food products).

Second and more important, previous research efforts have been dedicated to the effects of different types of CSR associations on consumers' evaluations of products/brand and consumer purchase intentions (e.g., Brown, 1998; Belch & Belch, 1987; Keller & Aaker, 1992, 1997; Webb & Mohr, 1998), without attempting to understand these responses. Only recently have researchers tried to address the psychological mechanism through which corporate social responsibility associations have an impact on consumers' attitudes and behavior (Berens, van Riel, & van Bruggen, 2005; Ellen et al., 2006; Gürhan-Canli & Batra, 2004; Madrigal, 2000; Sen & Bhattacharya, 2001). To date, few studies have investigated attributions as a mediating variable in the transfer of CSR associations on consumer responses (Ellen et al., 2006; Handelman & Arnold, 1999; Quilliam, 2008; Rifon et al., 2004; Webb and Mohr, 1998). Nonetheless, this is the first study that concentrates on attributions of responsibility, per se, to explain the impact of various CSR associations on consumers' responses. In other words, it is argued that attributions of blame play a mediating role between corporate social responsibility and company evaluations.

This dissertation essentially extends the study by Klein and Dawar (2004), where it was evidenced that causal dimensions such as locus, stability, and controllability

mediated the relationship between CSR and attributions of blame for a product-harm crisis, the degree of blame being consequential to brand evaluations and, ultimately to purchase intentions. The present research suggests that attributions of responsibility, per se, play the mediating role between CSR associations and company evaluations. In their study, Klein and Dawar (2004) operationalized attributions of blame as the extent to which consumers believed the company was responsible for a product-harm crisis. In this dissertation, attributions of responsibility are measured in a different way, as the degree to which consumers believe they (or the company) were (was) responsible for a negative product outcome. This further highlights a new role of CSR construct; namely, corporate social responsibility was found to moderate consumers' self-serving bias, a fundamental psychological response that has been neglected in the marketing literature (Bendapudi & Leone, 2003).

Third, research on CSR and consumers has concentrated on corporate philanthropy, environmental responsibility, and cause related marketing (Ellen et al., 2006; Pelozo & Shang, 2011). There is, in fact, one study that introduced advertising to children as a new domain to the CSR research (Quilliam, 2008); hence, this dissertation advances the CSR literature by focusing on relatively new areas in the literature of corporate social responsibility, namely traditional and online advertising to children.

**Policy Implications.** To the extent that government's intentions are to help parents change their attitudes and behavior toward their children's eating habits, it is important to understand how consumers truly react to these initiatives and, most notably, why their responses may be different than those reactions of individuals who are not constrained by a government ban. Therefore, the present dissertation is intended to help policy makers

better understand that a toy premium ban can eventually lead to unexpected decision making, because it alters individuals' attributions of responsibility for their food selections. Thus, if a change in parental behavior vis-à-vis their children eating habits is desired, a good policy measure would pay explicit attention to the possibility of deviant attitudes and behaviors, in response to public health interventions and, ultimately, avoid undermining parental responsibility. Additionally, different policy initiatives which encourage rather than undermine parental responsibility are necessary (cf., Blacksher, 2008).

This dissertation also emphasizes that corporate self-regulations could truly make a difference when it comes to childhood obesity. Thus, policy initiatives that encourage corporations to eliminate toy premiums with poor-nutritional meals are desired.

**Managerial implications.** This dissertation has also implications for marketing practitioners. Although research has demonstrated a positive relationship between CSR actions and consumer attitudes toward companies and their products (e.g., Brown & Dacin, 1997; Creyer & Ross, 1997; Ellen et al., 2000), little is known about how certain CSR initiatives function (Sen & Bhattacharya, 2001) and scarce attention has been given to the implementation of specific CSR activities (Bhattacharya et al., 2009; Peloza & Shang, 2011). When firms engage in CSR, it is fundamental that marketers understand the impact of consumers' CSR associations on their attitudes and purchase intentions. In addition, some corporate social responsibility actions may have positive effects on consumer responses, some of them are likely to trigger unfavorable reactions and this study sheds light with regard to when and why such relationships occur.

When consumers encounter harmful or faulty products, they immediately make attributions of blame (Folkes, 1984; Folkes & Kotsos, 1986). Moreover, when an outcome is produced jointly, consumers are subject to self-serving bias which means that they have the tendency to blame the company whenever a negative outcome occurs (Bendapudi & Leone, 2003). For example, parents may have the predisposition to ascribe responsibility, to the food marketers, for unhealthy products, which in turn negatively affects their satisfaction with the food companies and their product offerings. However, when consumers make these attributions of responsibility, they rely on information, including corporate social responsibility associations (Klein & Dawar, 2004). These corporate associations are very important because they may have a different influence on individuals' attributions, depending upon their relevance to these consumers (Crocker, 1981; Klein and Dawar, 2004; Metalsky & Abramson, 1981).

In this dissertation, it is argued that corporate decisions to eliminate toy premiums, with poor-nutritional meals, or remove those food products, which are high in calories, sodium, and fat, from advergames, are likely to cause parents take more personal responsibility for a negative product outcome; as a result, they are likely to express more positive attitudes and behavior toward a company. In this way, this research has implications for food marketers who engage in certain CSR activities. Many companies from the food industry are now making commitments to become more socially responsible, when it comes to childhood obesity and its related health issues. Some of their CSR initiatives, in both traditional and online advertising to children, illustrate a high commitment, while other socially responsible actions show a low promise. The current research suggests that a firm's decision to eliminate toy premiums with poor-

nutritional food products receives more favorable consumer responses. A company's strategy, which reflects an unexpected radical change, may cause consumers to assume more personal responsibility, for a negative product outcome, and ascribe less blame to the firm; consequently, more positive evaluative and behavioral responses directed to the company are likely to emerge.

Consumers' reactions to corporate self-regulations, in the realm of online advertising to children, remain unknown due to a lack of research in this domain. It appears that consumers react in a positive manner to the elimination, from advergimes, of products that have poor nutritional value; consequently, food marketers are provided with a stronger reason to adopt such strategies. The elimination of advertisement might be indeed inconsistent with "accepted marketing dictums" (Quilliam, 2008, p. 5); nonetheless, firms need to be perceived as more responsible and one mode to accomplish this objective is to act before government regulations emerge (Jolly & Mowen, 1985; Shrivastava & Siomkos, 1989). Consumers will ultimately recognize a company as being a good citizen if it intervenes prior to government agencies (Siomkos & Kurzbard, 1994).

The current results have yet more relevant managerial implications as companies have recently oscillated between two corporate social responsibility strategies, in online advertising settings, in order to address increased concerns about juvenile obesity; namely, the elimination of unhealthy products from, or the incorporation of healthy lifestyle messages in, advergimes, have been lately considered. It is essentially demonstrated here that, when corporations decide to eliminate advertising to children, of unhealthy products, they are less likely to be held accountable for negative product

outcomes; as a result, more positive consumers' attitudes and behavior toward these firms are evidenced.

As other major food companies are expected to join the recent initiatives that address juvenile obesity, this dissertation provides relevant managerial insights. It was discussed earlier that corporations have adopted various forms of corporate social responsibility without a thorough understanding of how and why consumers respond to these actions; therefore, the current findings provide meaningful insights with regard to the effects of socially responsible corporate behaviors, in both traditional and online advertising contexts, on consumers' company evaluations and subsequent purchase intentions.

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APPENDIX A  
STIMULUS MATERIAL (PILOT STUDY 1)

## **Government Regulation**

As a response to the issue of juvenile obesity, the government has announced its intentions to pass a law that bans restaurants from giving away free toys with children's meals that exceed certain levels of calories, sodium, fat, and sugar. As a result of this ban, restaurants such as McDonald's will no longer be allowed to provide free toys with the purchase of some Happy Meals. This means that you will no longer receive a free toy when you purchase a Happy Meal if this meal does not meet certain nutritional guidelines. The government intends to help parents like you make healthier food choices for their children.

## **Corporate Self-Regulation**

As a response to the issue of juvenile obesity, McDonald's has announced its new company directives for marketing food to children. Concentrating on their Happy Meals, McDonald's restaurants have decided to eliminate the free toys with Happy Meals that exceed certain levels of calories, sodium, fat, and sugar. As a result of these new directives, McDonald's will no longer provide free toys with the purchase of some Happy Meals. This means that you will no longer receive a free toy when you purchase a Happy Meal if this meal does not meet certain nutritional guidelines. McDonald's intends to help parents like you make healthier food choices when visiting McDonald's restaurants.

APPENDIX B

STIMULUS MATERIAL (PILOT STUDY 2, MAIN STUDY 2)

### **Corporate Social Responsibility (Low Commitments to Combat Childhood Obesity)**

McDonald's has recently announced new promotional strategies. McDonald's restaurants plan to introduce promotions of more nutritious Happy Meals (the new Happy Meals will automatically include apple slices and a new smaller size French fries). The new promotional strategies aim to help parents make nutrition-minded choices when visiting McDonald's restaurants and ultimately to support the fight against childhood obesity.

### **Corporate Social Responsibility (High Commitments to Combat Childhood Obesity)**

McDonald's has recently announced new promotional strategies. McDonald's restaurants plan to introduce promotions of more nutritious Happy Meals (the new Happy Meals will automatically include apple slices and a new smaller size French fries). Children will continue to receive a free toy with these more nutritious meals. Conversely, McDonald's will no longer provide free toys with poor nutritional Happy Meals (those Happy Meals that exceed certain levels of calories, sodium, fat, and sugar), hoping that children will be less tempted to eat these meals. The new promotional strategies aim to help parents make nutrition-minded choices when visiting McDonald's restaurants and ultimately to support the fight against childhood obesity.



APPENDIX C

STIMULUS MATERIAL (PILOT STUDY 3, MAIN STUDY 3)

### **Corporate Social Responsibility (Low Commitments to Combat Childhood Obesity)**

Kids' Cereals has recently announced new promotional strategies. The company plans to incorporate healthy lifestyle messages on the online interactive games directed to children under 12. One such example is: It is time to stop playing in the house (inside) and start playing in the backyard (outside). Kids' Cereals is committed to support the public and private initiatives that promote physical activities for children and families and ultimately to support the fight against childhood obesity.

### **Corporate Social Responsibility (High Commitments to Combat Childhood Obesity)**

Kids' Cereals has recently announced new promotional strategies. The company plans to eliminate the advertising of non-nutritious food products on their online interactive games directed to children under 12. Kids' Cereals Corporation plans to incorporate, in the free online video games, food and beverage products that have fewer calories and are lower in sugar, and sodium. Kids' Cereals is committed to support the public and private initiatives that promote nutrition education for children and families and ultimately to support the fight against childhood obesity.

APPENDIX D

STIMULUS MATERIAL (MAIN STUDY 1)

## **Government Regulation**

As a response to the issue of juvenile obesity, the government has announced its intentions to ban free toys with children's meals that exceed certain levels of calories, sodium, fat, and sugar. As a result of this ban, restaurants such as McDonald's can no longer provide free toys with the purchase of some Happy Meals. Thus, you will have to order a Happy Meal that meets certain nutritional guidelines in order to receive a free toy. The intent of this ban is to determine parents like you make healthier food decisions for their children when visiting restaurants such as McDonald's.

## **Corporate Self-Regulation**

As a response to the issue of juvenile obesity, McDonald's has announced its intentions to eliminate the promotion of those Happy Meals that exceed certain levels of calories, sodium, fat, and sugar. As a result of these initiatives, free toys will no longer be provided with the purchase of some Happy Meals. However, you can still receive a free toy when you order a Happy Meal that meets certain nutritional guidelines. The intent of these promotional initiatives is to help parents like you make healthier food decisions for their children when visiting McDonald's restaurants.

APPENDIX E  
INSTRUMENTS (PILOT STUDY 1)

Dear Participant,

I am a Doctoral Candidate under the direction of Professor Renée Shaw Hughner in the Morrison School of Agribusiness and Resource Management at Arizona State University. I am conducting a study about parents' attitudes and behavior with regard to their children's eating habits and meals consumed at home or away from home. I am inviting your participation which will involve approximately 15 minutes to fill out an online survey. Your participation in this study is voluntary. You have the right not to answer any question, you can skip questions, and you can opt out of the study at any time. You must be 18 or older to participate in this study; in addition, you must have a child or children aged 12 or younger and be responsible for your child's food purchases. If you do not meet any of these qualifications, please decline your participation in this study. The results of this research will likely provide a better understanding of parents' attitudes and behavior regarding the food products they purchase for their children. There are no foreseeable risks or discomforts to your participation. The data collected will be encrypted and any hard copies will be in my possession only. Your responses are completely confidential. The results of this study may be used in reports, presentations, publications but your name will not be identified. Moreover, the results will only be shared in the aggregate form. If you have any questions concerning this study, please contact the research team by email: Renée Hughner (Renee.Hughner@asu.edu), Claudia Dumitrescu (Claudia.Dumitrescu@asu.edu). If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

By clicking 'Accept,' you consent to participate in this study.

Sincerely,  
Claudia Dumitrescu

Section I. This section contains questions about your fast-food purchases. For each of the following questions please click the answer that best reflects your behavior.

About how often do you and your family purchase:

	Less than once a month	1 to 3 times a month	4 to 6 times a month	7 to 9 times a month	10 or more times a month
Food from McDonald's?					
Food from other fast food restaurants?					
McDonald's Happy Meals?					
Kids' meals from other fast food restaurants?					

Please indicate the extent to which you agree or disagree with each of the following statements. In general, I purchase Happy Meals:

	Strongly disagree	Strongly agree
To satisfy my child's hunger.		
To provide nutrition for my child.		
To entertain my child.		
To make my child happy.		
To use the McDonald's playground.		
So that my child will fit in with his/her friends.		
Because they are convenient.		
Because they are easy to eat in the car.		
So that my child can receive the free toy provided by McDonald's.		
For other reasons.		

Section II. Next, please answer the following questions about nutrition. Please note there are no 'right' or 'wrong' answers. You should click on the circle closest to the word/words that best reflects/reflect your answer.

When it comes to my child, nutrition is particularly:

	1	2	3	4	5	6	7	
Important								Unimportant
Of concern to me								Of no concern to me
Relevant								Irrelevant
Essential								Non-essential
Needed								Not needed
Means a lot to me								Means nothing to me
Valuable								Useless
Interesting								Boring

Please read the following statements and click on the circle that best reflects your level of agreement.

	Strongly disagree	Strongly agree
I know a lot about nutrition.		
I know to judge the nutritional quality of a food product.		
I think I know enough about nutrition to feel pretty confident when I make food purchases.		
I do not feel very knowledgeable about nutrition.		
Among my circle of friends, I am one of the 'experts' on nutrition.		
Compared to most other people, I know less about nutrition.		
When it comes to nutrition, I really do not know a lot.		



For each of the following statements, please indicate your level of agreement.

	Strongly disagree	Strongly agree
I have to be sure that my child does not eat too many high-fat foods. I encourage my child to eat less so he/she won't get fat. I restrict the food my child eats that might make him/her fat. There are certain food products my child shouldn't eat because they will make him/her fat. I often put my child on a diet to control his/her weight.		

Please select the extent to which you agree or disagree with each of the following statements.

	Strongly disagree	Strongly agree
If I did not guide or regulate my child's eating, he/she would eat too many junk foods. I have to be sure that my child does not eat too many sweets (for example, candy, ice cream, cake, pastries, etc.) I have to be sure my child does not eat too much of his/her favorite foods.		

Please click on the circle that best suggests your level of concern.

	Unconcerned	Very concerned
How concerned are you about your child eating too much when you are not around her/him? How concerned are you about your child having to diet to maintain a desirable weight? How concerned are you about your child becoming overweight or obese?		

Suppose the following story was recently reported in the news. Please read this hypothetical story and answer the questions that follow.

Participants are randomly assigned to one of the following two treatments:

As a response to the issue of juvenile obesity, the government has announced its intentions to pass a law that bans restaurants from giving away free toys with children's meals that exceed certain levels of calories, sodium, fat, and sugar. As a result of this ban, restaurants such as McDonald's will no longer be allowed to provide free toys with the purchase of some Happy Meals. This means that you will no longer receive a free toy when you purchase a Happy Meal if this meal does not meet certain nutritional guidelines. The government intends to help parents like you make healthier food choices for their children.

Or

As a response to the issue of juvenile obesity, McDonald's has announced its new company directives for marketing food to children. Concentrating on their Happy Meals, McDonald's restaurants have decided to eliminate the free toys with Happy Meals that exceed certain levels of calories, sodium, fat, and sugar. As a result of these new directives, McDonald's will no longer provide free toys with the purchase of some Happy Meals. This means that you will no longer receive a free toy when you purchase a Happy Meal if this meal does not meet certain nutritional guidelines. McDonald's intends to help parents like you make healthier food choices when visiting McDonald's restaurants.

Manipulation Checks questions (the first treatment; addressed right before Section III):

	Strongly disagree	Strongly agree
In this situation, I feel that the government's current directives are hard and blunt implements that interfere with my duty to choose the food I deem appropriate for my child.		
In this situation, I feel that the government's current directives are hard and blunt implements that violate the principle of the parent as primarily responsible for making decisions about what to feed his/her child.		

Manipulation Checks questions (the second treatment; addressed right before Section III):

	Strongly disagree	Strongly agree
In this situation, I feel that McDonald's current directives are hard and blunt implements that interfere with my duty to choose the food I deem appropriate for my child.		
In this situation, I feel that McDonald's current directives are hard and blunt implements that violate the principle of the parent as primarily responsible for making decisions about what to feed his/her child.		

Now, think about the last time you selected and purchased a McDonald's Happy Meal for your child/children. Suppose this meal met your child's expectations but exceeded certain levels of calories, sodium, fat, and sugar. Please refer to the above scenario when answering the following questions.

The next statements concern your impressions or opinions about the reason why the Happy Meal that you selected and purchased for your child met his/her expectations but exceeded certain levels of calories, sodium, fat, and sugar. Please click on the circle closest to the statement that best reflects your answer.

Why do you think the Happy Meal exceeded certain nutritional levels? In other words, the reason of the poor nutritional value of the Happy Meal you chose and purchased

	1	2	3	4	5	6	7	8	9	
is something that reflects on aspects of yourself										is something that reflects on aspects of McDonald's restaurant
had something to do with you										had something to do with McDonald's restaurant

In your opinion, the poor nutritional value of the Happy Meal you selected and purchased was something

	1	2	3	4	5	6	7	8	9	
temporary (an unusual incident that varies over time (something that does not happen all the time)										permanent (an usual incident) that remains stable over time (something that happens all the time).

To what extent do you think there are actions that you or McDonald's could take but have/has not in order to avoid the poor nutritional value of the Happy Meal you selected and purchased?

	1	2	3	4	5	6	7	8	9	
There are actions that I can take										There are actions that McDonald's restaurant can take.
The poor nutritional value of the Happy Meal you chose and purchased was controllable by you										The poor nutritional value of the Happy Meal you chose and purchased was controllable by McDonald's restaurant.

Based on the earlier scenario about the Happy Meal you selected and purchased, please click on the circle closest to the word that best reflects your answer.

	Myself	McDonald's
Who was most responsible for the poor nutritional value of the Happy Meal you chose and purchased? In your opinion, who should be held most accountable for the poor nutritional value of the Happy Meal you chose and purchased?		

Please select the extent to which you agree or disagree with each of the following statements.

	Strongly disagree	Strongly agree
I knew or should have known that the Happy Meal I purchased will meet my child's expectations but will have a poor nutritional content. When selecting that Happy Meal, I knew it will meet my child's expectations but I could not have known that it will have a poor nutritional content.		

Again, based on the earlier scenario about the Happy Meal you selected and purchased, please answer the following questions. Please click on the circle closest to the words that best reflect your level of agreement or disagreement.

How satisfied or dissatisfied were you with the Happy Meal you chose for your child?	Very dissatisfied	Very satisfied
I was very satisfied with the Happy Meal I purchased for my child.	Strongly disagree	Strongly agree
Given the identical set of Happy Meal alternatives to choose from, I would make the same choice again.	Strongly disagree	Strongly agree

Please click on the circle closest to the words that best reflect your future actions.

	Very low	Very high
The probability that I will purchase a similar Happy Meal again is: If I had to do it again, the probability that I will make a similar Happy Meal choice is:		

Section III. The survey is almost complete. Please take a moment to answer the following questions about you and your family.

Please indicate your gender:

- Male
- Female

How many people (including yourself) reside in your household?

How many children aged 12 or younger live in your household?

- None
- 1
- 2
- 3
- 4 or more

Which of the following categories includes your age?

- 18-25
- 26-35
- 36-45
- 46-55
- 56 and older

Which category best describes your educational background?

- Some High School
- High School or equivalent
- Vocational/Technical School (2 years)
- Some College
- College Graduate (4 year)
- Master's Degree
- Doctoral Degree
- Professional Degree (MD, JD, etc.)
- Other

Which category contains your annual total household income?

- Less than \$25,000
- \$25,000 to \$50,000
- \$50,001 to \$75,000
- \$75,001 to \$100,000
- \$100,001 to \$149,999
- \$150,000 or more

Are you currently married?

- Yes
- No

Are you currently employed?

- Part-time
- Full-time
- No

What is your Ethnic Background?

- Caucasian
- African American
- Asian American
- Hispanic American
- Other

Do both parents work in your family?

- Yes
- No
- Not applicable

How many activities outside of school does your child participate in? (for example, music, sports, religious schooling, etc.). If more than 1 child, then count the total number of scheduled activities.

- None
- 1 to 2
- 3 to 4
- 5 to 6
- More than 6

How many times per week do YOU have a scheduled activity, excluding your job (for example, PTA, volunteer, sports, book clubs, etc.)?

- None
- 1
- 2 to 3
- 4 to 5
- More than 5

How many hours per week does your child watch television (any station, including PBS and Disney)?

- None
- 1 to 5 hours per week
- 6 to 10 hours per week
- 11 to 15 hours per week
- More than 15 hours per week

When it comes to politics, do you usually think of yourself as:

- Very liberal
- Liberal
- Slightly liberal
- Moderate or middle of the road
- Slightly conservative



- Conservative
- Very conservative

Generally speaking, do you usually think of yourself as a:

- Strong democrat
- Weak - democrat
- Independent - democrat
- Independent
- Independent - republican
- Weak - republican
- Strong – republican

Please indicate your political views in the following categories. In other words, how do you think of yourself when it comes to:

Foreign Political Issues:

- Very liberal
- Liberal
- Slightly liberal
- Moderate or middle of the road
- Slightly conservative
- Conservative
- Very conservative

Economic Issues:

- Very liberal
- Liberal
- Slightly liberal
- Moderate or middle of the road
- Slightly conservative
- Conservative
- Very conservative

Social Issues:

- Very liberal
- Liberal
- Slightly liberal
- Moderate or middle of the road
- Slightly conservative
- Conservative
- Very conservative

You will find below a number of statements concerning personal attitudes and traits. Please read carefully each item and choose whether the statement is TRUE or FALSE as it pertains to you personally.

	True	False
I am always willing to admit when I make a mistake.		
I always try to practice what I preach.		
I would never think of letting someone else be punished for my wrong-doings.		
I have never been annoyed when people expressed ideas very different from my own.		
I have never deliberately said something that hurt someone's feelings.		
I have never been irritated when people expressed ideas very different from my own.		
There have been times when I felt like rebelling against people in authority even though I knew they were right.		
I sometimes feel resentful when I don't get my way.		
There have been occasions when I took advantage of someone.		
I sometimes try to get even rather than forgive and forget.		
At times I have really insisted on having things my own way.		
There have been occasions when I felt like smashing things.		

Next, please illustrate your level of agreement with the following statements.

	Strongly disagree	Strongly agree
Whether or not I get into a car accident depends mostly on how good a driver I am.		
When I make plans, I am almost certain to make them work.		
How many friends I have depends on how nice a person I am.		
I can pretty much determine what will happen in my life.		
I am usually able to protect my personal interests.		
When I get what I want, it's usually because I worked hard for it.		
My life is determined by my own actions.		

In which state do you currently reside?

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Puerto Rico
- Rhode Island
- South Carolina
- South Dakota
- Tennessee

- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming
- I do not reside in the United States

APPENDIX F  
INSTRUMENTS (PILOT STUDY 2)

Dear Participant,

I am a Doctoral Candidate under the direction of Professor Renée Shaw Hughner in the Morrison School of Agribusiness and Resource Management at Arizona State University. I am conducting a study about parents' attitudes and behavior with regard to their children's eating habits and meals consumed at home or away from home. I am inviting your participation which will involve approximately 15 minutes to fill out an online survey. Your participation in this study is voluntary. You have the right not to answer any question, you can skip questions, and you can opt out of the study at any time. You must be 18 or older to participate in this study; in addition, you must have a child or children aged 12 or younger and be responsible for your child's food purchases. If you do not meet any of these qualifications, please decline your participation in this study. The results of this research will likely provide a better understanding of parents' attitudes and behavior regarding the food products they purchase for their children. There are no foreseeable risks or discomforts to your participation. The data collected will be encrypted and any hard copies will be in my possession only. Your responses are completely confidential. The results of this study may be used in reports, presentations, publications but your name will not be identified. Moreover, the results will only be shared in the aggregate form. If you have any questions concerning this study, please contact the research team by email: Renée Hughner (Renee.Hughner@asu.edu), Claudia Dumitrescu (Claudia.Dumitrescu@asu.edu). If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

By clicking 'Accept,' you consent to participate in this study.

Sincerely,  
Claudia Dumitrescu

Section I. This section contains questions about your fast-food purchases. For each of the following questions please click the answer that best reflects your behavior.

About how often do you and your family purchase:

	Less than once a month	1 to 3 times a month	4 to 6 times a month	7 to 9 times a month	10 or more times a month
Food from McDonald's?					
Food from other fast food restaurants?					
McDonald's Happy Meals?					
Kids' meals from other fast food restaurants?					

Please indicate the extent to which you agree or disagree with each of the following statements. In general, I purchase Happy Meals:

	Strongly disagree	Strongly agree
To satisfy my child's hunger.		
To provide nutrition for my child.		
To entertain my child.		
To make my child happy.		
To use the McDonald's playground.		
So that my child will fit in with his/her friends.		
Because they are convenient.		
Because they are easy to eat in the car.		
So that my child can receive the free toy provided by McDonald's.		
For other reasons.		

Section II. Next, please answer the following questions about nutrition. Please note there are no 'right' or 'wrong' answers. You should click on the circle closest to the word/words that best reflects/reflect your answer.

When it comes to my child, nutrition is particularly:

	1	2	3	4	5	6	7	
Important								Unimportant
Of concern to me								Of no concern to me
Relevant								Irrelevant
Essential								Non-essential
Needed								Not needed
Means a lot to me								Means nothing to me
Valuable								Useless
Interesting								Boring

Please read the following statements and click on the circle that best reflects your level of agreement.

	Strongly disagree	Strongly agree
I know a lot about nutrition.		
I know to judge the nutritional quality of a food product.		
I think I know enough about nutrition to feel pretty confident when I make food purchases.		
I do not feel very knowledgeable about nutrition.		
Among my circle of friends, I am one of the 'experts' on nutrition.		
Compared to most other people, I know less about nutrition.		
When it comes to nutrition, I really do not know a lot.		



For each of the following statements, please indicate your level of agreement.

	Strongly disagree	Strongly agree
<p>I have to be sure that my child does not eat too many high-fat foods.            I encourage my child to eat less so he/she won't get fat.            I restrict the food my child eats that might make him/her fat.            There are certain food products my child shouldn't eat because they will make him/her fat.            I often put my child on a diet to control his/her weight.</p>		

Please select the extent to which you agree or disagree with each of the following statements.

	Strongly disagree	Strongly agree
<p>If I did not guide or regulate my child's eating, he/she would eat too many junk foods.            I have to be sure that my child does not eat too many sweets (for example, candy, ice cream, cake, pastries, etc.)            I have to be sure my child does not eat too much of his/her favorite foods.</p>		

Please click on the circle that best suggests your level of concern.

	Unconcerned	Very concerned
<p>How concerned are you about your child eating too much when you are not around her/him?            How concerned are you about your child having to diet to maintain a desirable weight?            How concerned are you about your child becoming overweight or obese?</p>		

Suppose the following story was recently reported in the news. Please read this hypothetical story and answer the questions that follow.

Participants are randomly assigned to one of the following two treatments:

McDonald's has recently announced new promotional strategies. McDonald's restaurants plan to introduce promotions of more nutritious Happy Meals (the new Happy Meals will automatically include apple slices and a new smaller size French fries). The new promotional strategies aim to help parents make nutrition-minded choices when visiting McDonald's restaurants and ultimately to support the fight against childhood obesity.

Or

McDonald's has recently announced new promotional strategies. McDonald's restaurants plan to introduce promotions of more nutritious Happy Meals (the new Happy Meals will automatically include apple slices and a new smaller size French fries). Children will continue to receive a free toy with these more nutritious meals. Conversely, McDonald's will no longer provide free toys with poor nutritional Happy Meals (those Happy Meals that exceed certain levels of calories, sodium, fat, and sugar), hoping that children will be less tempted to eat these meals. The new promotional strategies aim to help parents make nutrition-minded choices when visiting McDonald's restaurants and ultimately to support the fight against childhood obesity.

Manipulation Checks questions:

	Strongly disagree	Strongly agree
In this situation, McDonald's is truly committed to solve major societal problems such as childhood obesity.		
In this situation, McDonald's truly cares about major societal issues such as childhood obesity.		

Now, think about the last time you selected and purchased a McDonald's Happy Meal for your child/children. Suppose this meal met your child's expectations but exceeded certain levels of calories, sodium, fat, and sugar. Please refer to the above scenario when answering the following questions.

The next statements concern your impressions or opinions about the reason why the Happy Meal that you selected and purchased for your child met his/her expectations but exceeded certain levels of calories, sodium, fat, and sugar. Please click on the circle closest to the statement that best reflects your answer.

Why do you think the Happy Meal exceeded certain nutritional levels? In other words, the reason of the poor nutritional value of the Happy Meal you chose and purchased

	1	2	3	4	5	6	7	8	9	
is something that reflects on aspects of yourself										is something that reflects on aspects of McDonald's restaurant
had something to do with you										had something to do with McDonald's restaurant

In your opinion, the poor nutritional value of the Happy Meal you selected and purchased was something

	1	2	3	4	5	6	7	8	9	
temporary (an unusual incident that varies over time (something that does not happen all the time)										permanent (an usual incident) that remains stable over time (something that happens all the time).

To what extent do you think there are actions that you or McDonald's could take but have/has not in order to avoid the poor nutritional value of the Happy Meal you selected and purchased?

	1	2	3	4	5	6	7	8	9	
There are actions that I can take										There are actions that McDonald's restaurant can take.
The poor nutritional value of the Happy Meal you chose and purchased was controllable by you										The poor nutritional value of the Happy Meal you chose and purchased was controllable by McDonald's restaurant.

Based on the earlier scenario about the Happy Meal you selected and purchased, please click on the circle closest to the word that best reflects your answer.

	Myself	McDonald's
Who was most responsible for the poor nutritional value of the Happy Meal you chose and purchased? In your opinion, who should be held most accountable for the poor nutritional value of the Happy Meal you chose and purchased?		

Please select the extent to which you agree or disagree with each of the following statements.

	Strongly disagree	Strongly agree
I knew or should have known that the Happy Meal I purchased will meet my child's expectations but will have a poor nutritional content. When selecting that Happy Meal, I knew it will meet my child's expectations but I could not have known that it will have a poor nutritional content.		

Next, you will be asked about your opinion with regard to the fast food restaurant in the previous scenario (namely, McDonald's). Please click on the circle closest to the words that best reflect your answer.

---

How positive or negative would your attitude be toward this fast food restaurant?	Very negative	Very positive
Do you think the fast food restaurant that provided your Happy Meal is a good or bad company?	Very bad	Very good
Would you be likely to purchase other products made by this fast food restaurant?	Definitely not	Definitely would
In your opinion, this fast food company is...	Not at all trustworthy	Very trustworthy
In your opinion, this fast food restaurant is...	Not at all concerned about customers	Very concerned about customers

---

Next, please click on the circle that best suggests your future actions.

---

If you were shopping for a kids' meal, how likely would you be to purchase a McDonald's Happy Meal?	Very unlikely	Very likely
I will purchase a kids' meal from McDonald's in the future.	Strongly disagree	Strongly agree
There is a strong likelihood that I will buy a McDonald's Happy Meal in the future.	Strongly disagree	Strongly agree

---

Section III. The survey is almost complete. Please take a moment to answer the following questions about you and your family.

Please indicate your gender:

- Male
- Female

How many people (including yourself) reside in your household?

How many children aged 12 or younger live in your household?

- None
- 1
- 2
- 3
- 4 or more

Which of the following categories includes your age?

- 18-25
- 26-35
- 36-45
- 46-55
- 56 and older

Which category best describes your educational background?

- Some High School
- High School or equivalent
- Vocational/Technical School (2 years)
- Some College
- College Graduate (4 year)
- Master's Degree
- Doctoral Degree
- Professional Degree (MD, JD, etc.)
- Other

Which category contains your annual total household income?

- Less than \$25,000
- \$25,000 to \$50,000
- \$50,001 to \$75,000
- \$75,001 to \$100,000
- \$100,001 to \$149,999
- \$150,000 or more

Are you currently married?

- Yes
- No

Are you currently employed?

- Part-time
- Full-time
- No

What is your Ethnic Background?

- Caucasian
- African American
- Asian American
- Hispanic American
- Other

Do both parents work in your family?

- Yes
- No
- Not applicable

How many activities outside of school does your child participate in? (for example, music, sports, religious schooling, etc.). If more than 1 child, then count the total number of scheduled activities.

- None
- 1 to 2
- 3 to 4
- 5 to 6
- More than 6

How many times per week do YOU have a scheduled activity, excluding your job (for example, PTA, volunteer, sports, book clubs, etc.)?

- None
- 1
- 2 to 3
- 4 to 5
- More than 5

How many hours per week does your child watch television (any station, including PBS and Disney)?

- None
- 1 to 5 hours per week
- 6 to 10 hours per week
- 11 to 15 hours per week
- More than 15 hours per week

You will find below a number of statements concerning personal attitudes and traits. Please read carefully each item and choose whether the statement is TRUE or FALSE as it pertains to you personally.

	True	False
I am always willing to admit when I make a mistake.		
I always try to practice what I preach.		
I would never think of letting someone else be punished for my wrong-doings.		
I have never been annoyed when people expressed ideas very different from my own.		
I have never deliberately said something that hurt someone's feelings.		
I have never been irritated when people expressed ideas very different from my own.		
There have been times when I felt like rebelling against people in authority even though I knew they were right.		
I sometimes feel resentful when I don't get my way.		
There have been occasions when I took advantage of someone.		
I sometimes try to get even rather than forgive and forget.		
At times I have really insisted on having things my own way.		
There have been occasions when I felt like smashing things.		



Next, please illustrate your level of agreement with the following statements.

	Strongly disagree	Strongly agree
Whether or not I get into a car accident depends mostly on how good a driver I am.		
When I make plans, I am almost certain to make them work.		
How many friends I have depends on how nice a person I am.		
I can pretty much determine what will happen in my life.		
I am usually able to protect my personal interests.		
When I get what I want, it's usually because I worked hard for it.		
My life is determined by my own actions.		

In which state do you currently reside?

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine

- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Puerto Rico
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming
- I do not reside in the United States

APPENDIX G  
INSTRUMENTS (PILOT STUDY 3)

Dear Participant,

I am a Doctoral Candidate under the direction of Professor Renée Shaw Hughner in the Morrison School of Agribusiness and Resource Management at Arizona State University. I am conducting a study about parents' attitudes and behavior with regard to their children's eating habits and meals consumed at home or away from home. I am inviting your participation which will involve approximately 15 minutes to fill out an online survey. Your participation in this study is voluntary. You have the right not to answer any question, you can skip questions, and you can opt out of the study at any time. You must be 18 or older to participate in this study; in addition, you must have a child or children aged 12 or younger and be responsible for your child's food purchases. If you do not meet any of these qualifications, please decline your participation in this study. The results of this research will likely provide a better understanding of parents' attitudes and behavior regarding the food products they purchase for their children. There are no foreseeable risks or discomforts to your participation. The data collected will be encrypted and any hard copies will be in my possession only. Your responses are completely confidential. The results of this study may be used in reports, presentations, publications but your name will not be identified. Moreover, the results will only be shared in the aggregate form. If you have any questions concerning this study, please contact the research team by email: Renée Hughner (Renee.Hughner@asu.edu), Claudia Dumitrescu (Claudia.Dumitrescu@asu.edu). If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

By clicking 'Accept,' you consent to participate in this study.

Sincerely,  
Claudia Dumitrescu

Section I. This section contains questions about your kids' cereals purchases. For each of the following questions please click on the circle that best reflects your behavior.

	Less than once a month	Once a month	2 to 3 times a month	4 or more times a month
About how often do you and your family purchase cereals for your child?				
About how often does your child eat cereals?				

Please indicate the extent to which you agree or disagree with each of the following statements. In general, I purchase cereals:

	Strongly disagree	Strongly agree
To satisfy my child's hunger.		
To provide nutrition for my child.		
To make my child happy.		
So that my child can play the free online interactive games provided by the cereals brand.		
So that my child will fit in with his/her friends.		
Because they are convenient.		
Because they are easy to eat in the morning.		
For other reasons.		

Section II. This section contains questions about your child's online activity. For each of the following questions please click on the circle that best reflects your answer. About how often does your child use free online videogames provided by:

	Less than once a week	1 to 3 times a week	4 to 6 times a week	7 to 9 times a week	10 or more times a week
Fast food restaurants such as Burger King, McDonald's, etc.?					
Cereals brands such as Kellogg's, General Mills, Nestlé, etc.?					
Other food companies?					

About how much time does your child spend on free online videogames provided by:

	On average, less than 15 hours each month	On average, 16 to 18 hours each month	On average, 19 hours each month	On average, 20 to 22 hours each month	On average, 23 or more hours each month
Fast food restaurants such as Burger King, McDonald's, etc.?					
Cereals brands such as Kellogg's, General Mills, Nestlé, etc.?					
Other food companies?					

Section III. Next, please answer the following questions about nutrition. Please note there are no 'right' or 'wrong' answers. You should click on the circle closest to the word/words that best reflects/reflect your answer.

When it comes to my child, nutrition is particularly:

	1	2	3	4	5	6	7	
Important								Unimportant
Of concern to me								Of no concern to me
Relevant								Irrelevant
Essential								Non-essential
Needed								Not needed
Means a lot to me								Means nothing to me
Valuable								Useless
Interesting								Boring

Please read the following statements and click on the circle that best reflects your level of agreement.

	Strongly disagree	Strongly agree
I know a lot about nutrition.		
I know to judge the nutritional quality of a food product.		
I think I know enough about nutrition to feel pretty confident when I make food purchases.		
I do not feel very knowledgeable about nutrition.		
Among my circle of friends, I am one of the 'experts' on nutrition.		
Compared to most other people, I know less about nutrition.		
When it comes to nutrition, I really do not know a lot.		

For each of the following statements, please indicate your level of agreement.

	Strongly disagree	Strongly agree
I have to be sure that my child does not eat too many high-fat foods.		
I encourage my child to eat less so he/she won't get fat.		
I restrict the food my child eats that might make him/her fat.		
There are certain food products my child shouldn't eat because they will make him/her fat.		
I often put my child on a diet to control his/her weight.		

Please select the extent to which you agree or disagree with each of the following statements.

	Strongly disagree	Strongly agree
If I did not guide or regulate my child's eating, he/she would eat too many junk foods.		
I have to be sure that my child does not eat too many sweets (for example, candy, ice cream, cake, pastries, etc.)		
I have to be sure my child does not eat too much of his/her favorite foods.		

Please click on the circle that best suggests your level of concern.

---

Unconcerned	Very concerned
<hr/>	
How concerned are you about your child eating too much when you are not around her/him?	
How concerned are you about your child having to diet to maintain a desirable weight?	
How concerned are you about your child becoming overweight or obese?	

---

Suppose the story presented below was recently reported in the news. The information is about a real, famous cereals brand that has been on the market for a long time and, for the purpose of this experiment, we will name the brand Kids'Cereals. Please read this hypothetical story and answer the questions that follow.

Participants are randomly assigned to one of the following two treatments:

Kids'Cereals has recently announced new promotional strategies. The company plans to incorporate healthy lifestyle messages on the online interactive games directed to children under 12. One such example is: It is time to stop playing in the house (inside) and start playing in the backyard (outside). Kids'Cereals is committed to support the public and private initiatives that promote physical activities for children and families and ultimately to support the fight against childhood obesity.

Or

Kids'Cereals has recently announced new promotional strategies. The company plans to eliminate the advertising of non-nutritious food products on their online interactive games directed to children under 12. Kids'Cereals Corporation plans to incorporate, in the free online video games, food and beverage products that have fewer calories and are lower in sugar, and sodium. Kids'Cereals is committed to support the public and private initiatives that promote nutrition education for children and families and ultimately to support the fight against childhood obesity.



Manipulation checks:

	Strongly disagree	Strongly agree
In this situation, Kids' Cereals is truly committed to solve major societal problems such as childhood obesity.		
In this situation, Kids' Cereals truly cares about major societal problems such as childhood obesity.		

Now, think about the last time you went to a grocery store. Let's assume you purchased a box of Kids' Cereals for your child/children. Suppose the Kids' Cereals met your child's expectations but exceeded certain levels of calories, sodium, and sugar. Please refer to the above scenario when answering the following questions.

The next statements concern your impressions or opinions about the reason why the Kids' Cereals that you selected and purchased for your child met his/her expectations but exceeded certain levels of calories, sodium, and sugar. Please click on the circle closest to the statement that best reflects your answer.

Why do you think the Kids' Cereals exceeded certain nutritional levels? In other words, the reason of the poor nutritional value of the Kids' Cereals you chose and purchased

	1	2	3	4	5	6	7	8	9	
is something that reflects on aspects of yourself										is something that reflects on aspects of Kids' Cereals company.
had something to do with you										had something to do with the Kids' Cereals company.

In your opinion, the poor nutritional value of the Kids' Cereals you selected and purchased was something

	1	2	3	4	5	6	7	8	9	
temporary (an unusual incident that varies over time (something that does not happen all the time)										permanent (an usual incident) that remains stable over time (something that happens all the time).

To what extent do you think there are actions that you or the Kids'Cereals company could take but have/has not in order to avoid the poor nutritional value of the cereals you selected and purchased?

	1	2	3	4	5	6	7	8	9	
There are actions that I can take										There are actions that the Kids'Cereals company can take
The poor nutritional value of the cereals you chose and purchased was controllable by you										The poor nutritional value of the cereals you chose and purchased was controllable by the Kids'Cereals company

Based on the earlier scenario about the Kids'Cereals you selected and purchased, please click on the circle closest to the word that best reflects your answer.

	Myself	Kids'Cereals
Who was most responsible for the poor nutritional value of the Kids' Cereals you chose and purchased? In your opinion, who should be held most accountable for the poor nutritional value of the Kids' Cereals you chose and purchased?		

Please select the extent to which you agree or disagree with each of the following statements.

	Strongly disagree	Strongly agree
I knew or should have known that the Kids'Cereals I purchased will meet my child's expectations but will have a poor nutritional content. When selecting that box of Kids'Cereals, I knew it will meet my child's expectations but I could not have known that it will have a poor nutritional content.		

Next you will be asked about your opinion with regard to the company that provided the cereals in the previous scenario (namely, Kids’Cereals). Please click on the circle closest to the words that best reflect your answer.

---

How positive or negative would your attitude be toward this cereals company?	Very negative	Very positive
Do you think the company that provided the cereals is more likely a good or bad company?	Very bad	Very good
Would you be likely to purchase other products made by this company?	Definitely not	Definitely would
In your opinion, this food company is...	Not at all trustworthy	Very trustworthy
In your opinion, this cereals company is...	Not at all concerned about customers	Very concerned about customers

---

Next, please click on the circle that best suggests your future actions.

---

If you were shopping for kids’ cereals, how likely would you be to purchase Kids’Cereals?	Very unlikely	Very likely
I will purchase cereals from Kids’Cereals in the future.	Strongly disagree	Strongly agree
There is a strong likelihood that I will buy cereals from Kids’Cereals in the future.	Strongly disagree	Strongly agree

---

Section IV. The survey is almost complete. Please take a moment to answer the following questions about you and your family.

Please indicate your gender:

- Male
- Female

How many people (including yourself) reside in your household?

How many children aged 12 or younger live in your household?

- None
- 1
- 2
- 3
- 4 or more

Which of the following categories includes your age?

- 18-25
- 26-35
- 36-45
- 46-55
- 56 and older

Which category best describes your educational background?

- Some High School
- High School or equivalent
- Vocational/Technical School (2 years)
- Some College
- College Graduate (4 year)
- Master's Degree
- Doctoral Degree
- Professional Degree (MD, JD, etc.)
- Other

Which category contains your annual total household income?

- Less than \$25,000
- \$25,000 to \$50,000
- \$50,001 to \$75,000
- \$75,001 to \$100,000
- \$100,001 to \$149,999
- \$150,000 or more

Are you currently married?

- Yes
- No

Are you currently employed?

- Part-time
- Full-time
- No

What is your Ethnic Background?

- Caucasian
- African American
- Asian American
- Hispanic American
- Other

Do both parents work in your family?

- Yes
- No
- Not applicable

How many activities outside of school does your child participate in? (for example, music, sports, religious schooling, etc.). If more than 1 child, then count the total number of scheduled activities.

- None
- 1 to 2
- 3 to 4
- 5 to 6
- More than 6

How many times per week do YOU have a scheduled activity, excluding your job (for example, PTA, volunteer, sports, book clubs, etc.)?

- None
- 1
- 2 to 3
- 4 to 5
- More than 5

How many hours per week does your child watch television (any station, including PBS and Disney)?

- None
- 1 to 5 hours per week
- 6 to 10 hours per week
- 11 to 15 hours per week
- More than 15 hours per week

You will find below a number of statements concerning personal attitudes and traits. Please read carefully each item and choose whether the statement is TRUE or FALSE as it pertains to you personally.

	True	False
I am always willing to admit when I make a mistake.		
I always try to practice what I preach.		
I would never think of letting someone else be punished for my wrong-doings.		
I have never been annoyed when people expressed ideas very different from my own.		
I have never deliberately said something that hurt someone's feelings.		
I have never been irritated when people expressed ideas very different from my own.		
There have been times when I felt like rebelling against people in authority even though I knew they were right.		
I sometimes feel resentful when I don't get my way.		
There have been occasions when I took advantage of someone.		
I sometimes try to get even rather than forgive and forget.		
At times I have really insisted on having things my own way.		
There have been occasions when I felt like smashing things.		

Next, please illustrate your level of agreement with the following statements.

	Strongly disagree	Strongly agree
Whether or not I get into a car accident depends mostly on how good a driver I am.		
When I make plans, I am almost certain to make them work.		
How many friends I have depends on how nice a person I am.		
I can pretty much determine what will happen in my life.		
I am usually able to protect my personal interests.		
When I get what I want, it's usually because I worked hard for it.		
My life is determined by my own actions.		

In which state do you currently reside?

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Puerto Rico
- Rhode Island
- South Carolina

- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming
- I do not reside in the United States



APPENDIX H  
INSTRUMENTS (MAIN STUDY 1)

Dear Participant,

I am a Doctoral Candidate under the direction of Professor Renée Shaw Hughner in the Morrison School of Agribusiness and Resource Management at Arizona State University. I am conducting a study about parents' attitudes and behavior with regard to their children's eating habits and meals consumed at home or away from home. I am inviting your participation which will involve approximately 15 minutes to fill out an online survey. Your participation in this study is voluntary. You have the right not to answer any question, you can skip questions, and you can opt out of the study at any time. You must be 18 or older to participate in this study; in addition, you must have a child or children aged 12 or younger and be responsible for your child's food purchases. If you do not meet any of these qualifications, please decline your participation in this study. The results of this research will likely provide a better understanding of parents' attitudes and behavior regarding the food products they purchase for their children. There are no foreseeable risks or discomforts to your participation. The data collected will be encrypted and any hard copies will be in my possession only. Your responses are completely confidential. The results of this study may be used in reports, presentations, publications but your name will not be identified. Moreover, the results will only be shared in the aggregate form. If you have any questions concerning this study, please contact the research team by email: Renée Hughner (Renee.Hughner@asu.edu), Claudia Dumitrescu (Claudia.Dumitrescu@asu.edu). If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

By clicking 'Accept,' you consent to participate in this study.

Sincerely,  
Claudia Dumitrescu

Section I. This section contains questions about your fast-food purchases. For each of the following questions please click the answer that best reflects your behavior.

About how often do you and your family purchase:

	Less than once a month	1 to 3 times a month	4 to 6 times a month	7 to 9 times a month	10 or more times a month
Food from McDonald's?					
Food from other fast food restaurants?					
McDonald's Happy Meals?					
Kids' meals from other fast food restaurants?					

Please indicate the extent to which you agree or disagree with each of the following statements. In general, I purchase Happy Meals:

	Strongly disagree	Strongly agree
To satisfy my child's hunger.		
To provide nutrition for my child.		
To entertain my child.		
To make my child happy.		
To use the McDonald's playground.		
So that my child will fit in with his/her friends.		
Because they are convenient.		
Because they are easy to eat in the car.		
So that my child can receive the free toy provided by McDonald's.		
For other reasons.		

Section II. Next, please answer the following questions about nutrition. Please note there are no 'right' or 'wrong' answers. You should click on the circle closest to the word/words that best reflects/reflect your answer.

When it comes to my child, nutrition is particularly:

	1	2	3	4	5	6	7	
Important								Unimportant
Of concern to me								Of no concern to me
Relevant								Irrelevant
Essential								Non-essential
Needed								Not needed
Means a lot to me								Means nothing to me
Valuable								Useless
Interesting								Boring

Please read the following statements and click on the circle that best reflects your level of agreement.

	Strongly disagree	Strongly agree
I know a lot about nutrition.		
I know to judge the nutritional quality of a food product.		
I think I know enough about nutrition to feel pretty confident when I make food purchases.		
I do not feel very knowledgeable about nutrition.		
Among my circle of friends, I am one of the 'experts' on nutrition.		
Compared to most other people, I know less about nutrition.		
When it comes to nutrition, I really do not know a lot.		

For each of the following statements, please indicate your level of agreement.

	Strongly disagree	Strongly agree
I have to be sure that my child does not eat too many high-fat foods. I encourage my child to eat less so he/she won't get fat. I restrict the food my child eats that might make him/her fat. There are certain food products my child shouldn't eat because they will make him/her fat. I often put my child on a diet to control his/her weight.		

Please select the extent to which you agree or disagree with each of the following statements.

	Strongly disagree	Strongly agree
If I did not guide or regulate my child's eating, he/she would eat too many junk foods. I have to be sure that my child does not eat too many sweets (for example, candy, ice cream, cake, pastries, etc.) I have to be sure my child does not eat too much of his/her favorite foods.		

Please click on the circle that best suggests your level of concern.

	Unconcerned	Very concerned
How concerned are you about your child eating too much when you are not around her/him? How concerned are you about your child having to diet to maintain a desirable weight? How concerned are you about your child becoming overweight or obese?		

Suppose the following story was recently reported in the news. Please read this hypothetical story and answer the questions that follow.

Participants are randomly assigned to one of the following two treatments:

As a response to the issue of juvenile obesity, the government has announced its intentions to ban free toys with children's meals that exceed certain levels of calories, sodium, fat, and sugar. As a result of this ban, restaurants such as McDonald's can no longer provide free toys with the purchase of some Happy Meals. Thus, you will have to order a Happy Meal that meets certain nutritional guidelines in order to receive a free toy. The intent of this ban is to determine parents like you make healthier food decisions for their children when visiting restaurants such as McDonald's.

Or

As a response to the issue of juvenile obesity, McDonald's has announced its intentions to eliminate the promotion of those Happy Meals that exceed certain levels of calories, sodium, fat, and sugar. As a result of these initiatives, free toys will no longer be provided with the purchase of some Happy Meals. However, you can still receive a free toy when you order a Happy Meal that meets certain nutritional guidelines. The intent of these promotional initiatives is to help parents like you make healthier food decisions for their children when visiting McDonald's restaurants.

Manipulation Checks questions (the first treatment; addressed right before Section III):

	Strongly disagree	Strongly agree
This ban interferes with parents' responsibility to choose the food they deem appropriate for their children.		
This ban violates the principle of the parents as primarily responsible for making decisions about what to feed their children.		

Manipulation Checks questions (the second treatment; addressed right before Section III):

	Strongly disagree	Strongly agree
These initiatives interfere with parents' responsibility to choose the food they deem appropriate for their children.		
These initiatives violate the principle of the parents as primarily responsible for making decisions about what to feed their children.		

Now, think about the last time you selected and purchased a McDonald's Happy Meal for your child/children. Suppose this meal met your child's expectations but exceeded certain levels of calories, sodium, fat, and sugar. Please refer to the above scenario when answering the following questions.

The next statements concern your impressions or opinions about the reason why the Happy Meal that you selected and purchased for your child met his/her expectations but exceeded certain levels of calories, sodium, fat, and sugar. Please click on the circle closest to the statement that best reflects your answer.

Why do you think the Happy Meal exceeded certain nutritional levels? In other words, the reason of the poor nutritional value of the Happy Meal you chose and purchased

	1	2	3	4	5	6	7	8	9	
is something that reflects on aspects of yourself										is something that reflects on aspects of McDonald's restaurant
had something to do with you										had something to do with McDonald's restaurant

In your opinion, the poor nutritional value of the Happy Meal you selected and purchased was something

	1	2	3	4	5	6	7	8	9	
temporary (an unusual incident that varies over time (something that does not happen all the time)										permanent (an usual incident) that remains stable over time (something that happens all the time).

To what extent do you think there are actions that you or McDonald's could take but have/has not in order to avoid the poor nutritional value of the Happy Meal you selected and purchased?

		1	2	3	4	5	6	7	8	9
There are actions that I can take	There are actions that McDonald's restaurant can take.									
The poor nutritional value of the Happy Meal you chose and purchased was controllable by you	The poor nutritional value of the Happy Meal you chose and purchased was controllable by McDonald's restaurant.									

Based on the earlier scenario about the Happy Meal you selected and purchased, please click on the circle closest to the word that best reflects your answer.

	Myself	McDonald's
Who was most responsible for the poor nutritional value of the Happy Meal you chose and purchased? The poor nutritional value of the Happy Meal you selected and purchased was the responsibility of... In your opinion, who should be held most accountable for the poor nutritional value of the Happy Meal you chose and purchased?		

Please select the extent to which you agree or disagree with each of following statements.

	Strongly disagree	Strongly agree
I knew or should have known that the Happy Meal I purchased will meet my child's expectations but will have a poor nutritional content. When selecting that Happy Meal, I knew it will meet my child's expectations but I could not have known that it will have a poor nutritional content. I could have recognized the poor nutritional aspect of the Happy Meal I purchased.		



Again, based on the earlier scenario about the Happy Meal you selected and purchased, please answer the following questions. Please click on the circle closest to the words that best reflect your level of agreement or disagreement.

How satisfied or dissatisfied would you say you are with the Happy Meal you chose for your child?	Very dissatisfied	Very satisfied
I would say I am very pleased with the Happy Meal I purchased for my child.	Strongly disagree	Strongly agree
Given the identical set of Happy Meal alternatives to choose from, I would make the same choice again.	Strongly disagree	Strongly agree
Thinking of an ideal example of the Happy Meal I purchased, my choice was very close to the ideal example.	Strongly disagree	Strongly agree

Please click on the circle closest to the words that best reflect your future actions.

	Very low	Very high
The probability that I will purchase a similar Happy Meal again is: If I had to do it again, the probability that I will make a similar Happy Meal choice is: If my child asks for a similar Happy Meal next time when we visit McDonald's, the probability that I will buy it is:		

Section III. The survey is almost complete. Please take a moment to answer the following questions about you and your family.

Please indicate your gender:

- Male
- Female

How many people (including yourself) reside in your household?

How many children aged 12 or younger live in your household?

- None
- 1
- 2
- 3
- 4 or more

Which of the following categories includes your age?

- 18-25
- 26-35
- 36-45
- 46-55
- 56 and older

Which category contains your annual household income?

- Less than \$25,000
- \$25,000 to \$50,000
- \$50,001 to \$75,000
- \$75,001 to \$100,000
- \$100,001 to \$149,999
- \$150,000 or more

Are you currently married?

- Yes
- No

Are you currently employed?

- Part-time
- Full-time
- No

What is your Ethnic Background?

- Caucasian
- African American
- Asian American
- Hispanic American
- Other

Do both parents work in your family?

- Yes
- No
- Not applicable

How many activities outside of school does your child participate in? (for example, music, sports, religious schooling, etc.). If more than 1 child, then count the total number of scheduled activities.

- None
- 1 to 2
- 3 to 4
- 5 to 6
- More than 6

How many times per week do YOU have a scheduled activity, excluding your job (for example, PTA, volunteer, sports, book clubs, etc.)?

- None
- 1
- 2 to 3
- 4 to 5
- More than 5

How many times per week do YOU have a scheduled activity, excluding your job (for example, PTA, volunteer, sports, book clubs, etc.)?

- None
- 1
- 2 to 3
- 4 to 5
- More than 5

How many hours per week does your child watch television (any station, including PBS and Disney)?

- None
- 1 to 5 hours per week
- 6 to 10 hours per week
- 11 to 15 hours per week
- More than 15 hours per week

When it comes to politics, do you usually think of yourself as:

- Very liberal
- Liberal
- Slightly liberal
- Moderate or middle of the road

- Slightly conservative
- Conservative
- Very conservative

Generally speaking, do you usually think of yourself as a:

- Strong democrat
- Weak - democrat
- Independent - democrat
- Independent
- Independent - republican
- Weak - republican
- Strong – republican

Please indicate your political views in the following categories. In other words, how do you think of yourself when it comes to:

Foreign Political Issues:

- Very liberal
- Liberal
- Slightly liberal
- Moderate or middle of the road
- Slightly conservative
- Conservative
- Very conservative

Economic Issues:

- Very liberal
- Liberal
- Slightly liberal
- Moderate or middle of the road
- Slightly conservative
- Conservative
- Very conservative

Social Issues:

- Very liberal
- Liberal
- Slightly liberal
- Moderate or middle of the road
- Slightly conservative
- Conservative
- Very conservative

You will find below a number of statements concerning personal attitudes and traits. Please read carefully each item and choose whether the statement is TRUE or FALSE as it pertains to you personally.

	True	False
I am always willing to admit when I make a mistake.		
I always try to practice what I preach.		
I would never think of letting someone else be punished for my wrong-doings.		
I have never been annoyed when people expressed ideas very different from my own.		
I have never deliberately said something that hurt someone's feelings.		
I have never been irritated when people expressed ideas very different from my own.		
There have been times when I felt like rebelling against people in authority even though I knew they were right.		
I sometimes feel resentful when I don't get my way.		
There have been occasions when I took advantage of someone.		
I sometimes try to get even rather than forgive and forget.		
At times I have really insisted on having things my own way.		
There have been occasions when I felt like smashing things.		

Next, please illustrate your level of agreement with the following statements.

	Strongly disagree	Strongly agree
Whether or not I get into a car accident depends mostly on how good a driver I am.		
When I make plans, I am almost certain to make them work.		
How many friends I have depends on how nice a person I am.		
I can pretty much determine what will happen in my life.		
I am usually able to protect my personal interests.		
When I get what I want, it's usually because I worked hard for it.		
My life is determined by my own actions.		

In which state do you currently reside?

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Puerto Rico
- Rhode Island
- South Carolina

- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming
- I do not reside in the United States

Finally, you will be presented several hypothetical Happy Meals. Imagine that you and your child are at a McDonald's restaurant and you see multiple displays containing the Happy Meals. Please assume that the Happy Meals are identical in terms of price and a free toy will be provided as usual. Lastly, any purchase that you decide to make will have the effect of reducing the money available to you and your family for other purchases. Please note that there are 4 items which comprise a Happy Meal.

Based on the following alternatives, please indicate the Happy Meal that you would be most likely to purchase for your child (you have only one choice; for example, you can select either Happy Meal A or Happy Meal B).

- Happy Meal A.

Item 1: Apple Slices (1/2 serving)

Item 2: French Fries (small size)

Item 3: Chicken McNuggets (4pc)

Item 4: Your choice of Apple Juice Box (6.75 fl oz) or Sprite (12 fl oz cup)

This meal (Happy Meal A) does not exceed certain levels of calories, fat, sodium, and sugar.

- Happy Meal B

Item 1: Apple Slices (1/2 serving)

Item 2: French Fries (small size)

Item 3: Chicken McNuggets (4pc)

Item 4: Your choice of 1% Low Fat White Milk Jug (8 fl oz) or Fat Free Chocolate Milk (8 fl oz).

This meal (Happy Meal B) exceeds certain levels of calories, fat, sodium, and sugar.

Again, based on the following alternatives, please indicate the Happy Meal that you would be most likely to purchase for your child (you have only one choice; for example, you can select either Happy Meal C or Happy Meal D).

- Happy Meal C

Item 1: Apple Slices (1/2 serving)

Item 2: French Fries (small size)

Item 3: Your choice of Hamburger or Cheeseburger

Item 4: Your choice of 1% Low Fat White Milk Jug (8 fl oz), Fat Free Chocolate Milk (8 fl oz), Apple Juice Box (6.75 fl oz) or Sprite (12 fl oz cup).

This meal (Happy Meal C) exceeds certain levels of calories, fat, sodium, and sugar.

- Happy Meal D

Item 1: Apple Slices (1/2 servings)

Item 2: Apple Slices (2 servings)

Item 3: French Fries (small size)

Item 4: Your choice of 1% Low Fat White Milk Jug (8 fl oz), Fat Free Chocolate Milk (8 fl oz), Apple Juice Box (6.75 fl oz) or Sprite (12 fl oz cup).

This meal (Happy Meal D) does not exceed certain levels of calories, fat, sodium, and sugar.



APPENDIX I  
INSTRUMENTS (MAIN STUDY 2)

Dear Participant,

I am a Doctoral Candidate under the direction of Professor Renée Shaw Hughner in the Morrison School of Agribusiness and Resource Management at Arizona State University. I am conducting a study about parents' attitudes and behavior with regard to their children's eating habits and meals consumed at home or away from home. I am inviting your participation which will involve approximately 15 minutes to fill out an online survey. Your participation in this study is voluntary. You have the right not to answer any question, you can skip questions, and you can opt out of the study at any time. You must be 18 or older to participate in this study; in addition, you must have a child or children aged 12 or younger and be responsible for your child's food purchases. If you do not meet any of these qualifications, please decline your participation in this study. The results of this research will likely provide a better understanding of parents' attitudes and behavior regarding the food products they purchase for their children. There are no foreseeable risks or discomforts to your participation. The data collected will be encrypted and any hard copies will be in my possession only. Your responses are completely confidential. The results of this study may be used in reports, presentations, publications but your name will not be identified. Moreover, the results will only be shared in the aggregate form. If you have any questions concerning this study, please contact the research team by email: Renée Hughner (Renee.Hughner@asu.edu), Claudia Dumitrescu (Claudia.Dumitrescu@asu.edu). If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

By clicking 'Accept,' you consent to participate in this study.

Sincerely,  
Claudia Dumitrescu

Section I. This section contains questions about your fast-food purchases. For each of the following questions please click the answer that best reflects your behavior.

About how often do you and your family purchase:

	Less than once a month	1 to 3 times a month	4 to 6 times a month	7 to 9 times a month	10 or more times a month
Food from McDonald's?					
Food from other fast food restaurants?					
McDonald's Happy Meals?					
Kids' meals from other fast food restaurants?					

Please indicate the extent to which you agree or disagree with each of the following statements. In general, I purchase Happy Meals:

	Strongly disagree	Strongly agree
To satisfy my child's hunger.		
To provide nutrition for my child.		
To entertain my child.		
To make my child happy.		
To use the McDonald's playground.		
So that my child will fit in with his/her friends.		
Because they are convenient.		
Because they are easy to eat in the car.		
So that my child can receive the free toy provided by McDonald's.		
For other reasons.		

Section II. Next, please answer the following questions about nutrition. Please note there are no 'right' or 'wrong' answers. You should click on the circle closest to the word/words that best reflects/reflect your answer.

When it comes to my child, nutrition is particularly:

	1	2	3	4	5	6	7	
Important								Unimportant
Of concern to me								Of no concern to me
Relevant								Irrelevant
Essential								Non-essential
Needed								Not needed
Means a lot to me								Means nothing to me
Valuable								Useless
Interesting								Boring

Please read the following statements and click on the circle that best reflects your level of agreement.

	Strongly disagree	Strongly agree
I know a lot about nutrition.		
I know to judge the nutritional quality of a food product.		
I think I know enough about nutrition to feel pretty confident when I make food purchases.		
I do not feel very knowledgeable about nutrition.		
Among my circle of friends, I am one of the 'experts' on nutrition.		
Compared to most other people, I know less about nutrition.		
When it comes to nutrition, I really do not know a lot.		

For each of the following statements, please indicate your level of agreement.

	Strongly disagree	Strongly agree
I have to be sure that my child does not eat too many high-fat foods. I encourage my child to eat less so he/she won't get fat. I restrict the food my child eats that might make him/her fat. There are certain food products my child shouldn't eat because they will make him/her fat. I often put my child on a diet to control his/her weight.		

Please select the extent to which you agree or disagree with each of the following statements.

	Strongly disagree	Strongly agree
If I did not guide or regulate my child's eating, he/she would eat too many junk foods. I have to be sure that my child does not eat too many sweets (for example, candy, ice cream, cake, pastries, etc.) I have to be sure my child does not eat too much of his/her favorite foods.		

Please click on the circle that best suggests your level of concern.

	Unconcerned	Very concerned
How concerned are you about your child eating too much when you are not around her/him? How concerned are you about your child having to diet to maintain a desirable weight? How concerned are you about your child becoming overweight or obese?		

Suppose the following story was recently reported in the news. Please read this hypothetical story and answer the questions that follow.

Participants are randomly assigned to one of the following two treatments:

McDonald's has recently announced new promotional strategies. McDonald's restaurants plan to introduce promotions of more nutritious Happy Meals (the new Happy Meals will automatically include apple slices and a new smaller size French fries).

The new promotional strategies aim to help parents make nutrition-minded choices when visiting McDonald's restaurants and ultimately to support the fight against childhood obesity.

Or

McDonald's has recently announced new promotional strategies. McDonald's restaurants plan to introduce promotions of more nutritious Happy Meals (the new Happy Meals will automatically include apple slices and a new smaller size French fries). Children will continue to receive a free toy with these more nutritious meals. Conversely, McDonald's will no longer provide free toys with poor nutritional Happy Meals (those Happy Meals that exceed certain levels of calories, sodium, fat, and sugar), hoping that children will be less tempted to eat these meals.

The new promotional strategies aim to help parents make nutrition-minded choices when visiting McDonald's restaurants and ultimately to support the fight against childhood obesity.

Manipulation Checks questions:

	Strongly disagree	Strongly agree
In this situation, McDonald's is truly committed to solve major societal problems such as childhood obesity.		
In this situation, McDonald's truly cares about major societal issues such as childhood obesity.		

Now, think about the last time you selected and purchased a McDonald's Happy Meal for your child/children. Suppose this meal met your child's expectations but exceeded certain levels of calories, sodium, fat, and sugar. Please refer to the above scenario when answering the following questions.

The next statements concern your impressions or opinions about the reason why the Happy Meal that you selected and purchased for your child met his/her expectations but exceeded certain levels of calories, sodium, fat, and sugar. Please click on the circle closest to the statement that best reflects your answer.

Why do you think the Happy Meal exceeded certain nutritional levels? In other words, the reason of the poor nutritional value of the Happy Meal you chose and purchased

	1	2	3	4	5	6	7	8	9	
is something that reflects on aspects of yourself										is something that reflects on aspects of McDonald's restaurant
had something to do with you										had something to do with McDonald's restaurant

In your opinion, the poor nutritional value of the Happy Meal you selected and purchased was something

	1	2	3	4	5	6	7	8	9	
temporary (an unusual incident that varies over time (something that does not happen all the time)										permanent (an usual incident) that remains stable over time (something that happens all the time).

To what extent do you think there are actions that you or McDonald's could take but have/has not in order to avoid the poor nutritional value of the Happy Meal you selected and purchased?

	1	2	3	4	5	6	7	8	9
There are actions that I can take									
The poor nutritional value of the Happy Meal you chose and purchased was controllable by you									
There are actions that McDonald's restaurant can take.									
The poor nutritional value of the Happy Meal you chose and purchased was controllable by McDonald's restaurant.									

Based on the earlier scenario about the Happy Meal you selected and purchased, please click on the circle closest to the word that best reflects your answer.

	Myself	McDonald's
Who was most responsible for the poor nutritional value of the Happy Meal you chose and purchased?		
In your opinion, who should be held most accountable for the poor nutritional value of the Happy Meal you chose and purchased?		

Please select the extent to which you agree or disagree with each of the following statements.

	Strongly disagree	Strongly agree
I knew or should have known that the Happy Meal I purchased will meet my child's expectations but will have a poor nutritional content.		
When selecting that Happy Meal, I knew it will meet my child's expectations but I could not have known that it will have a poor nutritional content.		



Next, you will be asked about your opinion with regard to the fast food restaurant in the previous scenario (namely, McDonald's). Please click on the circle closest to the words that best reflect your answer.

---

How positive or negative would your attitude be toward this fast food restaurant?	Very negative	Very positive
Do you think the fast food restaurant that provided your Happy Meal is a good or bad company?	Very bad	Very good
Would you be likely to purchase other products made by this fast food restaurant?	Definitely not	Definitely would
In your opinion, this fast food company is...	Not at all trustworthy	Very trustworthy
In your opinion, this fast food restaurant is...	Not at all concerned about customers	Very concerned about customers

---

Next, please click on the circle that best suggests your future actions.

---

If you were shopping for a kids' meal, how likely would you be to purchase a McDonald's Happy Meal?	Very unlikely	Very likely
I will purchase a kids' meal from McDonald's in the future.	Strongly disagree	Strongly agree
There is a strong likelihood that I will buy a McDonald's Happy Meal in the future.	Strongly disagree	Strongly agree

---

Section III. The survey is almost complete. Please take a moment to answer the following questions about you and your family.

Please indicate your gender:

- Male
- Female

How many people (including yourself) reside in your household?

How many children aged 12 or younger live in your household?

- None
- 1
- 2
- 3
- 4 or more

Which of the following categories includes your age?

- 18-25
- 26-35
- 36-45
- 46-55
- 56 and older

Which category best describes your educational background?

- Some High School
- High School or equivalent
- Vocational/Technical School (2 years)
- Some College
- College Graduate (4 year)
- Master's Degree
- Doctoral Degree
- Professional Degree (MD, JD, etc.)
- Other

Which category contains your annual total household income?

- Less than \$25,000
- \$25,000 to \$50,000
- \$50,001 to \$75,000
- \$75,001 to \$100,000
- \$100,001 to \$149,999
- \$150,000 or more

Are you currently married?

- Yes
- No

Are you currently employed?

- Part-time
- Full-time
- No

What is your Ethnic Background?

- Caucasian
- African American
- Asian American
- Hispanic American
- Other

Do both parents work in your family?

- Yes
- No
- Not applicable

How many activities outside of school does your child participate in? (for example, music, sports, religious schooling, etc.). If more than 1 child, then count the total number of scheduled activities.

- None
- 1 to 2
- 3 to 4
- 5 to 6
- More than 6

How many times per week do YOU have a scheduled activity, excluding your job (for example, PTA, volunteer, sports, book clubs, etc.)?

- None
- 1
- 2 to 3
- 4 to 5
- More than 5

How many hours per week does your child watch television (any station, including PBS and Disney)?

- None
- 1 to 5 hours per week
- 6 to 10 hours per week
- 11 to 15 hours per week
- More than 15 hours per week

You will find below a number of statements concerning personal attitudes and traits. Please read carefully each item and choose whether the statement is TRUE or FALSE as it pertains to you personally.

	True	False
I am always willing to admit when I make a mistake.		
I always try to practice what I preach.		
I would never think of letting someone else be punished for my wrong-doings.		
I have never been annoyed when people expressed ideas very different from my own.		
I have never deliberately said something that hurt someone's feelings.		
I have never been irritated when people expressed ideas very different from my own.		
There have been times when I felt like rebelling against people in authority even though I knew they were right.		
I sometimes feel resentful when I don't get my way.		
There have been occasions when I took advantage of someone.		
I sometimes try to get even rather than forgive and forget.		
At times I have really insisted on having things my own way.		
There have been occasions when I felt like smashing things.		

Next, please illustrate your level of agreement with the following statements.

	Strongly disagree	Strongly agree
Whether or not I get into a car accident depends mostly on how good a driver I am.		
When I make plans, I am almost certain to make them work.		
How many friends I have depends on how nice a person I am.		
I can pretty much determine what will happen in my life.		
I am usually able to protect my personal interests.		
When I get what I want, it's usually because I worked hard for it.		
My life is determined by my own actions.		

In which state do you currently reside?

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Puerto Rico
- Rhode Island
- South Carolina

- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming
- I do not reside in the United States

Finally, you will be presented several hypothetical Happy Meals. Imagine that you and your child are at a McDonald's restaurant and you see multiple displays containing the Happy Meals. Please assume that the Happy Meals are identical in terms of price and a free toy will be provided as usual. Lastly, any purchase that you decide to make will have the effect of reducing the money available to you and your family for other purchases. Please note that there are 4 items which comprise a Happy Meal.

Based on the following alternatives, please indicate the Happy Meal that you would be most likely to purchase for your child (you have only one choice; for example, you can select either Happy Meal A or Happy Meal B).

- Happy Meal A.  
Item 1: Apple Slices (1/2 serving)  
Item 2: French Fries (small size)  
Item 3: Chicken McNuggets (4pc)  
Item 4: Your choice of Apple Juice Box (6.75 fl oz) or Sprite (12 fl oz cup)  
This meal (Happy Meal A) does not exceed certain levels of calories, fat, sodium, and sugar.

- Happy Meal B  
Item 1: Apple Slices (1/2 serving)  
Item 2: French Fries (small size)  
Item 3: Chicken McNuggets (4pc)  
Item 4: Your choice of 1% Low Fat White Milk Jug (8 fl oz) or Fat Free Chocolate Milk (8 fl oz).  
This meal (Happy Meal B) exceeds certain levels of calories, fat, sodium, and sugar.  
Again, based on the following alternatives, please indicate the Happy Meal that you would be most likely to purchase for your child (you have only one choice; for example, you can select either Happy Meal C or Happy Meal D).

- Happy Meal C

Item 1: Apple Slices (1/2 serving)

Item 2: French Fries (small size)

Item 3: Your choice of Hamburger or Cheeseburger

Item 4: Your choice of 1% Low Fat White Milk Jug (8 fl oz), Fat Free Chocolate Milk (8 fl oz), Apple Juice Box (6.75 fl oz) or Sprite (12 fl oz cup).

This meal (Happy Meal C) exceeds certain levels of calories, fat, sodium, and sugar.

- Happy Meal D

Item 1: Apple Slices (1/2 servings)

Item 2: Apple Slices (2 servings)

Item 3: French Fries (small size)

Item 4: Your choice of 1% Low Fat White Milk Jug (8 fl oz), Fat Free Chocolate Milk (8 fl oz), Apple Juice Box (6.75 fl oz) or Sprite (12 fl oz cup).

This meal (Happy Meal D) does not exceed certain levels of calories, fat, sodium, and sugar.

APPENDIX J  
INSTRUMENTS (MAIN STUDY 3)



Dear Participant,

I am a Doctoral Candidate under the direction of Professor Renée Shaw Hughner in the Morrison School of Agribusiness and Resource Management at Arizona State University. I am conducting a study about parents' attitudes and behavior with regard to their children's eating habits and meals consumed at home or away from home. I am inviting your participation which will involve approximately 15 minutes to fill out an online survey. Your participation in this study is voluntary. You have the right not to answer any question, you can skip questions, and you can opt out of the study at any time. You must be 18 or older to participate in this study; in addition, you must have a child or children aged 12 or younger and be responsible for your child's food purchases. If you do not meet any of these qualifications, please decline your participation in this study. The results of this research will likely provide a better understanding of parents' attitudes and behavior regarding the food products they purchase for their children. There are no foreseeable risks or discomforts to your participation. The data collected will be encrypted and any hard copies will be in my possession only. Your responses are completely confidential. The results of this study may be used in reports, presentations, publications but your name will not be identified. Moreover, the results will only be shared in the aggregate form. If you have any questions concerning this study, please contact the research team by email: Renée Hughner (Renee.Hughner@asu.edu), Claudia Dumitrescu (Claudia.Dumitrescu@asu.edu). If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

By clicking 'Accept,' you consent to participate in this study.

Sincerely,  
Claudia Dumitrescu

Section I. This section contains questions about your kids' cereals purchases. For each of the following questions please click on the circle that best reflects your behavior.

	Less than once a month	Once a month	2 to 3 times a month	4 or more times a month
About how often do you and your family purchase cereals for your child?				
About how often does your child eat cereals?				

Please indicate the extent to which you agree or disagree with each of the following statements. In general, I purchase cereals:

	Strongly disagree	Strongly agree
To satisfy my child's hunger.		
To provide nutrition for my child.		
To make my child happy.		
So that my child can play the free online interactive games provided by the cereals brand.		
So that my child will fit in with his/her friends.		
Because they are convenient.		
Because they are easy to eat in the morning.		
For other reasons.		

Section II. This section contains questions about your child's online activity. For each of the following questions please click on the circle that best reflects your answer. About how often does your child use free online videogames provided by:

	Less than once a week	1 to 3 times a week	4 to 6 times a week	7 to 9 times a week	10 or more times a week
Fast food restaurants such as Burger King, McDonald's, etc.?					
Cereals brands such as Kellogg's, General Mills, Nestlé, etc.?					
Other food companies?					

About how much time does your child spend on free online videogames provided by:

	On average, less than 15 hours each month	On average, 16 to 18 hours each month	On average, 19 hours each month	On average, 20 to 22 hours each month	On average, 23 or more hours each month
Fast food restaurants such as Burger King, McDonald's, etc.?					
Cereals brands such as Kellogg's, General Mills, Nestlé, etc.?					
Other food companies?					

Section III. Next, please answer the following questions about nutrition. Please note there are no 'right' or 'wrong' answers.

You should click on the circle closest to the word/words that best reflects/reflect your answer.

When it comes to my child, nutrition is particularly:

	1	2	3	4	5	6	7	
Important								Unimportant
Of concern to me								Of no concern to me
Relevant								Irrelevant
Essential								Non-essential
Needed								Not needed
Means a lot to me								Means nothing to me
Valuable								Useless
Interesting								Boring

Please read the following statements and click on the circle that best reflects your level of agreement.

	Strongly disagree	Strongly agree
I know a lot about nutrition.		
I know to judge the nutritional quality of a food product.		
I think I know enough about nutrition to feel pretty confident when I make food purchases.		
I do not feel very knowledgeable about nutrition.		
Among my circle of friends, I am one of the 'experts' on nutrition.		
Compared to most other people, I know less about nutrition.		
When it comes to nutrition, I really do not know a lot.		

For each of the following statements, please indicate your level of agreement.

	Strongly disagree	Strongly agree
I have to be sure that my child does not eat too many high-fat foods.		
I encourage my child to eat less so he/she won't get fat.		
I restrict the food my child eats that might make him/her fat.		
There are certain food products my child shouldn't eat because they will make him/her fat.		
I often put my child on a diet to control his/her weight.		

Please select the extent to which you agree or disagree with each of the following statements.

	Strongly disagree	Strongly agree
If I did not guide or regulate my child's eating, he/she would eat too many junk foods.		
I have to be sure that my child does not eat too many sweets (for example, candy, ice cream, cake, pastries, etc.)		
I have to be sure my child does not eat too much of his/her favorite foods.		

Please click on the circle that best suggests your level of concern.

---

Unconcerned	Very concerned
<hr/>	
How concerned are you about your child eating too much when you are not around her/him?	
How concerned are you about your child having to diet to maintain a desirable weight?	
How concerned are you about your child becoming overweight or obese?	

---

Suppose the story presented below was recently reported in the news. The information is about a real, famous cereals brand that has been on the market for a long time and, for the purpose of this experiment, we will name the brand Kids'Cereals. Please read this hypothetical story and answer the questions that follow.

Participants are randomly assigned to one of the following two treatments:

Kids'Cereals has recently announced new promotional strategies. The company plans to incorporate healthy lifestyle messages on the online interactive games directed to children under 12. One such example is: It is time to stop playing in the house (inside) and start playing in the backyard (outside). Kids'Cereals is committed to support the public and private initiatives that promote physical activities for children and families and ultimately to support the fight against childhood obesity.

Or

Kids'Cereals has recently announced new promotional strategies. The company plans to eliminate the advertising of non-nutritious food products on their online interactive games directed to children under 12. Kids'Cereals Corporation plans to incorporate, in the free online video games, food and beverage products that have fewer calories and are lower in sugar, and sodium.

Kids'Cereals is committed to support the public and private initiatives that promote nutrition education for children and families and ultimately to support the fight against childhood obesity.

Manipulations checks:

	Strongly disagree	Strongly agree
In this situation, Kids' Cereals is truly committed to solve major societal problems such as childhood obesity.		
In this situation, Kids' Cereals truly cares about major societal problems such as childhood obesity.		

Now, think about the last time you went to a grocery store. Let's assume you purchased a box of Kids' Cereals for your child/children. Suppose the Kids' Cereals met your child's expectations but exceeded certain levels of calories, sodium, and sugar. Please refer to the above scenario when answering the following questions.

The next statements concern your impressions or opinions about the reason why the Kids' Cereals that you selected and purchased for your child met his/her expectations but exceeded certain levels of calories, sodium, and sugar. Please click on the circle closest to the statement that best reflects your answer.

Why do you think the Kids' Cereals exceeded certain nutritional levels? In other words, the reason of the poor nutritional value of the Kids' Cereals you chose and purchased

	1	2	3	4	5	6	7	8	9	
is something that reflects on aspects of yourself										is something that reflects on aspects of Kids' Cereals company.
had something to do with you										had something to do with the Kids' Cereals company.

In your opinion, the poor nutritional value of the Kids' Cereals you selected and purchased was something

	1	2	3	4	5	6	7	8	9	
temporary (an unusual incident that varies over time (something that does not happen all the time)										permanent (an usual incident) that remains stable over time (something that happens all the time).

To what extent do you think there are actions that you or the Kids' Cereals company could take but have/has not in order to avoid the poor nutritional value of the cereals you selected and purchased?

	1	2	3	4	5	6	7	8	9	
There are actions that I can take										There are actions that the Kids' Cereals company can take
The poor nutritional value of the cereals you chose and purchased was controllable by you										The poor nutritional value of the cereals you chose and purchased was controllable by the Kids' Cereals company

Based on the earlier scenario about the Kids' Cereals you selected and purchased, please click on the circle closest to the word that best reflects your answer.

	Myself	Kids' Cereals
Who was most responsible for the poor nutritional value of the Kids' Cereals you chose and purchased? In your opinion, who should be held most accountable for the poor nutritional value of the Kids' Cereals you chose and purchased?		

Please select the extent to which you agree or disagree with each of the following statements.

	Strongly disagree	Strongly agree
I knew or should have known that the Kids'Cereals I purchased will meet my child's expectations but will have a poor nutritional content.		
When selecting that box of Kids'Cereals, I knew it will meet my child's expectations but I could not have known that it will have a poor nutritional content.		

Next you will be asked about your opinion with regard to the company that provided the cereals in the previous scenario (namely, Kids' Cereals). Please click on the circle closest to the words that best reflect your answer.

How positive or negative would your attitude be toward this cereals company?	Very negative	Very positive
Do you think the company that provided the cereals is more likely a good or bad company?	Very bad	Very good
Would you be likely to purchase other products made by this company?	Definitely not	Definitely would
In your opinion, this food company is...	Not at all trustworthy	Very trustworthy
In your opinion, this cereals company is...	Not at all concerned about customers	Very concerned about customers



Next, please click on the circle that best suggests your future actions.

---

If you were shopping for kids' cereals, how likely would you be to purchase Kids' Cereals?	Very unlikely	Very likely
I will purchase cereals from Kids' Cereals in the future.	Strongly disagree	Strongly agree
There is a strong likelihood that I will buy cereals from Kids' Cereals in the future.	Strongly disagree	Strongly agree

---

Section IV. The survey is almost complete. Please take a moment to answer the following questions about you and your family.

Please indicate your gender:

- Male
- Female

How many people (including yourself) reside in your household?

How many children aged 12 or younger live in your household?

- None
- 1
- 2
- 3
- 4 or more

Which of the following categories includes your age?

- 18-25
- 26-35
- 36-45
- 46-55
- 56 and older

Which category best describes your educational background?

- Some High School
- High School or equivalent
- Vocational/Technical School (2 years)
- Some College
- College Graduate (4 year)
- Master's Degree
- Doctoral Degree
- Professional Degree (MD, JD, etc.)
- Other

Which category contains your annual total household income?

- Less than \$25,000
- \$25,000 to \$50,000
- \$50,001 to \$75,000
- \$75,001 to \$100,000
- \$100,001 to \$149,999
- \$150,000 or more

Are you currently married?

- Yes
- No

Are you currently employed?

- Part-time
- Full-time
- No

What is your Ethnic Background?

- Caucasian
- African American
- Asian American
- Hispanic American
- Other

Do both parents work in your family?

- Yes
- No
- Not applicable

How many activities outside of school does your child participate in? (for example, music, sports, religious schooling, etc.). If more than 1 child, then count the total number of scheduled activities.

- None
- 1 to 2
- 3 to 4
- 5 to 6
- More than 6

How many times per week do YOU have a scheduled activity, excluding your job (for example, PTA, volunteer, sports, book clubs, etc.)?

- None
- 1
- 2 to 3
- 4 to 5
- More than 5

How many hours per week does your child watch television (any station, including PBS and Disney)?

- None
- 1 to 5 hours per week
- 6 to 10 hours per week
- 11 to 15 hours per week
- More than 15 hours per week

You will find below a number of statements concerning personal attitudes and traits. Please read carefully each item and choose whether the statement is TRUE or FALSE as it pertains to you personally.

	True	False
I am always willing to admit when I make a mistake.		
I always try to practice what I preach.		
I would never think of letting someone else be punished for my wrong-doings.		
I have never been annoyed when people expressed ideas very different from my own.		
I have never deliberately said something that hurt someone's feelings.		
I have never been irritated when people expressed ideas very different from my own.		
There have been times when I felt like rebelling against people in authority even though I knew they were right.		
I sometimes feel resentful when I don't get my way.		
There have been occasions when I took advantage of someone.		
I sometimes try to get even rather than forgive and forget.		
At times I have really insisted on having things my own way.		
There have been occasions when I felt like smashing things.		

Next, please illustrate your level of agreement with the following statements.

	Strongly disagree	Strongly agree
Whether or not I get into a car accident depends mostly on how good a driver I am.		
When I make plans, I am almost certain to make them work.		
How many friends I have depends on how nice a person I am.		
I can pretty much determine what will happen in my life.		
I am usually able to protect my personal interests.		
When I get what I want, it's usually because I worked hard for it.		
My life is determined by my own actions.		

In which state do you currently reside?

- Alabama
- Alaska
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi

- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Pennsylvania
- Puerto Rico
- Rhode Island
- South Carolina
- South Dakota
- Tennessee
- Texas
- Utah
- Vermont
- Virginia
- Washington
- West Virginia
- Wisconsin
- Wyoming
- I do not reside in the United States

APPENDIX K  
TESTING THE MEDIATED EFFECTS

There are four conditions that must be met for a variable (i.e., attributions of responsibility) to be considered a mediator between the independent variable (i.e., government regulation in Main Study 1, corporate social responsibility in Main Study 2 and Main Study 3) and depended variable (i.e., product satisfaction in Main Study 1, company evaluations in Main Study 2 and Main Study 3) (Baron & Kenny, 1986; Holmbeck, 1997):

### **Main Study 1**

1. Government regulation must significantly impact attributions of responsibility.
2. Government regulation must have a significant impact on product satisfaction.
3. Attributions of responsibility must be significantly linked with product satisfaction.
4. The impact of a government regulation on product satisfaction must be less after controlling for attributions of responsibility. A condition is that there first ought to be a significant relationship between government regulation and product satisfaction, for attributions of responsibility to serve as a mediator.

### **Main Study 2 and Main Study 3**

1. Corporate social responsibility must significantly impact attributions of responsibility.
2. Corporate social responsibility must have a significant impact on company evaluations.
3. Attributions of responsibility must be significantly linked with company evaluations.
4. The impact of corporate social responsibility on company evaluations must be less after controlling for attributions of responsibility. A condition is that there first ought to be a significant relationship between corporate social responsibility and company evaluations, for attributions of responsibility to serve as a mediator.

APPENDIX L

THE REVIEW BY THE INSTITUTIONAL REVIEW BOARD





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Office of Research Integrity and Assurance

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**To:** Renee Hughner  
WAN

**From:** Mark Roosa, Chair   
Soc Beh IRB

**Date:** 03/07/2012

**Committee Action:** Exemption Granted

**IRB Action Date:** 03/07/2012

**IRB Protocol #:** 1202007534

**Study Title:** Consumer Reactions to Government Regulation and Corporate Self Regulation

The above-referenced protocol is considered exempt after review by the Institutional Review Board pursuant to Federal regulations, 45 CFR Part 46.101(b)(2).

This part of the federal regulations requires that the information be recorded by investigators in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. It is necessary that the information obtained not be such that if disclosed outside the research, it could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

You should retain a copy of this letter for your records.

