

MEMORABLE MESSAGES, FAMILY COMMUNICATION PATTERNS AND
TRUST IN FOOD ADVERTISEMENTS

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ABSTRACT

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The goals of this paper were to explore the influence of family communication on individual trust in food/drink advertisements. One hundred and sixty-three native speakers of English (age 18-28) were recruited from Amazon Mechanical Turk and forty were recruited from Michigan State University SONA credit pool to participate in the main study. This paper displayed frequency distributions of messages participants recalled their parents talked about healthy eating. Employing the ADTRUST (Soh et al., 2009), Family Communication Pattern (Ritchie & Fitzpatrick, 1990), and SKEP scales (Obermiller & Spangenberg, 1998), this paper used nested OLS regression models to examine how trust in advertisements was related to the message rationale, the promoting approach, family communication patterns and skepticism toward general advertisements. Findings indicated that people were more likely to recall messages with a rationale than without a rationale, and were more likely to recall messages using the promoting approach than the attacking approach. The message rationale had no effect on trust in either unhealthy or healthy food/drink ads. The promoting approach increased trust in unhealthy food/drink ads but had no effect on trust in healthy food/drink ads. I did not find the effects of either conversation-oriented or conformity-oriented family communication on trust in unhealthy food/drink ads, while the effects of conformity-oriented family communication were observed on trust in healthy food/drink ads. There was a negative association between skepticism toward general ads and trust in both healthy and unhealthy food/drink ads.

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CHAPTER 1. INTRODUCTION

From 2009 to 2010, more than one-third of adults, almost 17% of youth (age 10 to 17), and about 1 in 8 preschoolers (aged 2– 5) in the U.S. were obese. Obesity was especially regarded as an important health risk issue for both children and adolescents because adolescents who were obese were likely to be obese as adults. According to Freedman, “A systematic review found 24%–90% of obese adolescents become overweight/obese adults. In one study, 87% of obese adolescents were obese adults, 39% of obese adolescents were severely obese adult ” (2009, p. 18). People who were obese are likely to develop the following problems: heart disease, Type 2 diabetes, stroke, osteoarthritis, several types of cancer, including cancer of the breast, colon, kidney, and pancreas, as well as multiple myeloma and Hodgkin’s lymphoma (CDC, 2014). Obese adolescents were more likely to have pre-diabetes, and in a study of obese youth, 70% had at least one risk factor (high cholesterol or high blood pressure) of cardiovascular disease. The CDC estimates by 2025, two out of every five adults would suffer from obesity. These conditions mentioned above put a greater focus on preventing and controlling weight gain in children, adolescents, and young adults.

According to Harvard School of Public Health (2014), many factors caused obesity: genetics, socioeconomic reasons (i.e., inability to access healthy food) and lifestyle (i.e., too little physical activity and poor eating habits). Research revealed that good nutrition was one of the keys to reducing obesity (Lent, Hill, Dollahite, Wolfe, & Dickin, 2012; Millimet, Tchernis, & Husain, 2010; Watt, Appel, Roberts, Flores, & Morris, 2013). Bad eating habits such as lower consumption of vegetables and fruits as well as consumption of too much junk food and sweetened-beverages were considered leading causes of obesity (Chang & Nayga, 2009; Chang & Nayga, 2010; Henderson, Coveney, Ward, & Taylor, 2009).

Because obesity was such a ubiquitous problem, Americans' physiological well-being had become a major topic for many disciplines (Lichtenstein et al., 2006). Scholars emphasized that consuming nutritional foods and limiting intake of fat and sugar to keep a balanced diet was critical to reduce risk of chronic diseases (e.g., cardiovascular, obesity). Healthy eating promoted a healthy lifestyle and was a potential solution to the obesity problem (Lichtenstein et al., 2006). Therefore, encouraging people to live healthily by motivating them to purchase and to consume more nutritional foods and fewer unhealthy foods became an important topic both in academia and public health.

One of the most important factors influencing people's purchase intentions and decisions was consumers' trust in advertisements, brands, the firms that produce them, and media (Bhaduri, 2013; Hong & Cho, 2011; Li & Miniard, 2006; Liu et al., 2012; Okazaki et al., 2007; Peter, 1999). One study indicated that trust/distrust of a firm influenced perceived quality and product purchase intention (Bhaduri, 2013). Trust in an electronic intermediary was found to strongly influence purchase intentions in the e-marketplaces (Hong & Cho, 2011).

Other researchers analyzed people's trust in advertisements (Li & Miniard, 2006; Okazaki, Katsukura, & Nishiyama, 2007). Consumers' trust in advertisements was found to improve their attitudes toward the advertisements (Liu, Sinkovics, Pezderka, & Haghirian, 2012; Okazaki et al., 2007). Soh (2009) developed a reliable and valid measure of trust in advertising with 20 items, named the ADTRUST Scale. This scale revealed "trust in advertising to be a multidimensional construct with four distinct factors: reliability, usefulness, affect, and willingness to rely on" (Soh, 2009, p. 97). Since trust in advertisements was found to both indirectly and directly promote purchase and consumption behaviors (Li & Miniard, 2006; Okazaki et al., 2007), in order to learn how to motivate people to purchase and consume more healthy foods and fewer

unhealthy foods, understanding how trust in advertisements was built and how it influenced people's food purchase intentions and decisions were necessary. One study suggested that some childhood food rules (e.g., "you must eat your vegetables at dinner", "you cannot have dessert until you finish your meal") might have a long-lasting impact on eating behaviors" (Puhl & Schwartz, 2003). Branen and Fletcher (1999) conducted a survey among college students, demonstrating that people's present eating habits were related to their caregivers' feeding practices and food habits in their childhood. How their caregivers talked about nutrition influenced their current consideration of nutrition when choosing foods by themselves.

This study focused on how young adults' trust in advertisements was affected by their family communication experience in their childhood. Parents play an important role in determining children's trust in and attitudes toward food advertisements through family communication. This topic was studied by examining memorable messages (long-term recalled messages) and family communication patterns. Effects of memorable messages on trust in food advertisements could help understand the development of life-long eating behaviors. Similarly, understanding family communication patterns could help influence children's consumer skill learning and food related consumer behavior (Carlson et al., 1990; Carlson et al., 1994; Kim et al., 2009; Lackman & Lanasa, 1993; Moore & Moschis, 1978). Here I examined if young adults' recalled messages and perceived family communication patterns influenced their current trust in food/drink advertisements.

Memorable messages have been examined in health communication area through qualitative methods for many years but this was the first study investigating memorable messages about healthy eating in advertising area through mixed (i.e., qualitative and quantitative) methods. The goals of this paper were to 1) explore the influence of family communication on trust in

food/drink advertisements by discovering whether parental messages with a rationale were more likely to be recalled than messages without a rationale; 2) to determine whether the message rationale or the promoting approach (e.g., “Eat healthy foods”) versus attacking unhealthy behavior (e.g., “Don’t eat unhealthy foods”) influenced trust in food/drink advertisements; 3) to analyze whether family communication patterns influenced trust in food/drink advertisements; 4) to investigate whether skepticism toward general advertisements influenced trust in food/drink advertisements.

First, I conducted a pilot study. I assessed participants’ healthiness perceptions, familiarity and consumptions of fourteen food/drink brands, as well as their recalled conversations with their parents about what they should or shouldn’t eat or about what or how to eat. Based on the results of the pilot study, I conducted a main study. I first asked respondents to rate their trust and their healthiness perceptions of a total of four ads. Second, I asked them to rate how they perceived general advertisements, aiming at checking their skepticism toward general ads. Third, they were asked to recall conversations with their parents about what they should or shouldn’t eat or about what or how to eat. Fourth, they rated their perceived family communication patterns. Finally they were asked a set of demographic questions. The results of this study would provide an understanding about how family communication could be improved to decrease children’s susceptibility to unhealthy food/drink advertisements and increase trust in healthy food/drink advertisements, as well as to better cultivate people’s life-long healthy eating behaviors.

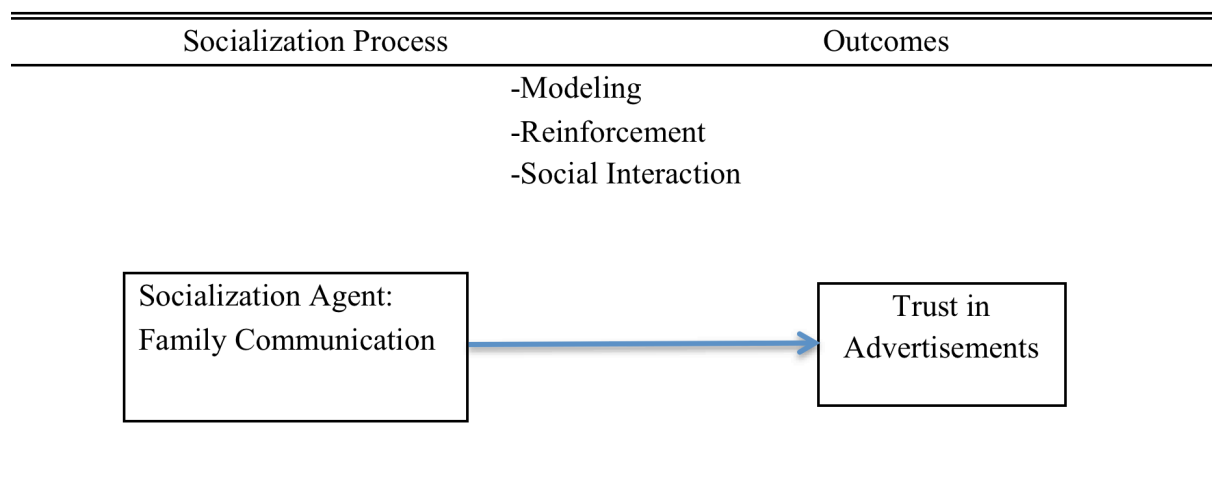
CHAPTER 2. THEORETICAL FOUNDATION & LITERATURE REVIEW

2.1 Theoretical Foundation

Moschis defined that “consumer socialization is the process by which young people develop consumer-related skills, knowledge, and attitudes” (Bush, Smith, & Martin, 1999, p. 16; Moschis & Churchill, 1978). Social learning theory was used to explain an individual’s socialization as an outcome of environmental forces in communication and advertising research (Bandura, 1969; Moschis & Smith, 1985). The individuals, passive in the social learning process, developed beliefs and attitudes relying on the social interaction. According to social learning theory, a socialization agent was important in shaping the individuals’ attitudes and behaviors (McLeod & O’Keefe, 1972). From a consumer behavior perspective, parents could be regarded as a socialization agent (Ward, Wackman, & Wartella, 1977), and played significant roles in children’s acquisition of consumer skills as outcomes of consumer socialization, including consumer cognition (e.g., attitudes toward advertisements, trust in advertisements) and behavior (e.g., purchase behavior) (Bush et al., 1999; Moschis & Churchill, 1978). Namely, parents heavily influenced children via family rules, communication, and interaction about healthy eating behaviors on their trust in advertisements.

Figure 1

A Conceptual Model of Consumer Socialization and Trust in Advertisements



1

2.2 Media Effects on Children's Perception of Foods and Eating Behaviors

Mass communication could encourage health related behaviors, by developing public health mass media campaigns (Brown & Witherspoon, 2002; Cavill & Bauman, 2004; Wakefield, Loken, & Hornik, 2010; Whitney & Viswanath, 2004). Considering their reach and appeal, mass media campaigns played major roles in promoting health and preventing disease (Hornik, 2002). However, "we have also seen that the media do have an effect, sometimes subtly, sometimes more powerfully, and the potential is greater for negative rather than positive effects" (Brown & Witherspoon, 2002). Scholars had studied media effects on children, especially eating habits, for many decades and had argued that children's perceptions of what constitutes healthy eating were highly influenced by their media exposure (Signorielli & Lears, 1992; Signorielli & Staples, 1997). Namely, children who watched more TV perceived unhealthy food as healthier. A

¹ Figure 1 was developed by the researcher of this study based on Bush's "A conceptual model of consumer socialization and attitudes toward advertising" (Bush, Smith, & Martin, n.d.)

positive relationship was also found between the time of TV viewing and children's likelihood to select unhealthy food choices. Harrison (2005) discovered that TV's framing and description of balanced diet foods confused children about the benefits of weight-loss and nutrition. One example used by Harrison is interesting: "A commercial for fat-free ice cream is likely to tout the health benefits of eating fat-free ice cream as opposed to regular ice cream. The commercial does not mention the multitude of other foods that are healthier than ice cream, fat-free or regular." (2005, p. 120) By viewing such an advertisement, children might think fat-free ice cream was healthy when actually it was not comparing to fresh fruits.

Harris (2009) found that food advertising had priming effects triggering people's automatic snacking behavior. Two theories could be used to explain these priming effects. According to cultivation theory, repetitive exposure to consistent media portrayals and themes influenced perceptions in the direction of the media portrayals (Gerbner, Gross, Morgan, and Signorielli 1994). Social learning theory had been used to explain people's reactions to a broad category of advertised products. Social learning theory proposed that modeled behaviors (e.g., eating behavior portrayed in advertisement) would motivate similar behavior among audiences (Bandura, 1986, 1994; Buijzen, Schuurman, & Bomhof, 2008). In other words, people who were always exposed to unhealthy food advertisements were more likely to eat those unhealthy foods. By contrast, people who viewed more healthy food advertisements were likely to purchase and consume more healthy foods. Considering the effect of advertising on consumption of foods/drinks, learning how to lessen the unhealthy food/drink advertisements' negative influence on people and how to promote people, who are exposed to healthy food/drink advertisements, to further purchase healthy food/drink is imperative.

2.3 Parenting and Children's Eating Habits

Even though mass communication could be helpful to improving children's eating habits, parents also played an important role. When discussing who should take responsibility for children's healthy eating habits, scholars emphasized that parents should teach their children how to critically watch television and evaluate commercial messages (Signorielli & Lears, 1992). According to Harrison, "Even if parents, teachers, and other caregivers are not as effective in changing the landscape of television food advertising as they would like to be, they can use their power to encourage their children to become more savvy consumers of both television's messages and the foods that are sold in those messages" (2005, p. 130). Furthermore, Fawcett (2008) argued that parents and not advertisers should take responsibility for the obesity problem. Although mothers generally held negative attitudes about the impact of TV food advertising on their children, and looked forward to seeing more regulation of advertisement content, they did not regard TV food advertising as the most important factor affecting their children's eating habits and wellness. Instead, mothers believed themselves to be the most influential person in controlling their children's TV food ad viewing, and deciding what kinds of food their children should eat (Yu, 2012). These studies showed that parents believed that they had significant power in lessening children's susceptibility to media and unhealthy food advertisements.

2.4 Influence of Family Communication on Children's Eating Behavior and Consumer Behavior

Several studies had explored the impact of family communication on children's health behaviors (Baranowski, 1982; Bruss et al., 2005; Rimal & Flora, 1998). A study showed that improving parent-child communication processes might reduce individual risk factors, and

facilitate discussion about factors that lead to involvement in health-risk behaviors such as unhealthy eating behaviors (Riesch, Anderson, & Krueger, 2006). Miller-Day (2006) found that family communication patterns influenced children's susceptibility to media messages. Children who were more likely to be influenced by media messages, such as unhealthy food advertisements, were more likely to eat unhealthy foods. Austin (1993) concluded that parents' active mediation could influence children's interpretation of television content. Family communication was found to directly influence the development of children's consumer behavior such as use of market information and decision-making styles (Kim, Lee, & Tomiuk, 2009; Moschis, 1985). However, few studies had examined the influence of parents' active mediation, via family communication, on children's consumer cognition (e.g., attitudes toward advertisements, trust in advertisements). According to Bush, family communication about "consumption-related activities" was found to be positively associated with children's attitude toward advertisements (1999, p. 19). Further research on the influence of family communication on children's consumer cognition related to advertisements was needed. Since eating habits and attitudes toward food ads established in childhood might carry over into adulthood, it was important to understand this influence because it would give us insights about how family communication might lessen the impact of unhealthy food advertisements on both children and young adults, which would further motivate their unhealthy eating behaviors.

2.5 Trust

2.5.1 General Concepts of Trust

To understand trust in advertisements, it was first necessary to have a more general definition of trust. As summarized by Colquitt, Scott and LePine (2007, p. 909), Mayer (1995)

developed “an integrative model that defined trust as the willingness of a trustor to be vulnerable to the actions of a trustee based on the expectation that the trustee will perform a particular action.” In Mayer’s model, trust was regarded as a predictor of risk taking and related outcomes (Kee & Knox, 1970; Ross & LaCroix, 1996).

Blau (1964) identified two distinct kinds of exchange relationships: economic exchange and social exchange. Economic exchange included “the exchange of exact quantities in advance” while social exchange refers to “the exchange of diffuse, future obligations that are vaguely specified and occur over a more open-ended time frame” (Colquitt et al., 2007, p. 911). Trust was an integral component of a social exchange because the absence of contract put one party into a risk situation such that the other might not fulfill the obligation (Blau, 1964). Trust was also important in economic exchange such as daily shopping. In consumer cognition and behavior perspectives, trust in advertisements, trust in brands, or trust in the salesperson influenced consumers’ purchase decisions (Peter, 1999; Li & Miniard, 2006; Okazaki et al., 2007; Kim & Chung, 2011; Hong & Cho, 2011; Bhaduri, 2013).

2.5.2 Trust in Advertisements

Trust was regarded as a foundation for consumers to make purchase decisions by reducing uncertainty (Fisher, Till, & Stanley, 2010). In one study, trust in advertisements was defined as “beliefs about advertising’s trustworthiness and willingness to act on ad-conveyed information” (Soh, Reid, & King, 2009). According to Soh, “this definition is consistent with prior conceptualizations that trust consists of cognitive, emotional, and behavioral dimensions.” (2009, p. 86). In this study, Soh’s definition of trust in advertisements and four-factor ADTRUST scale (i.e., reliability, usefulness, affect and willingness to rely on) was utilized because it was comprehensive and had been cited by more than fifty studies.

2.5.3 Trust in Food Advertisements

According to Liu (2012), people who trusted in advertising were likely to hold favorable perceptions about the value of advertising, which was found to be the most significant determinant of attitudes toward advertisements. One study found a strong relationship between people's trust in advertisements and their attitudes toward the advertisements (Liu et al., 2012; Okazaki et al., 2007), suggesting that people who trusted food advertisements might be more likely to hold positive attitudes toward those advertisements. According to Peter, "consumer affect and cognition can change consumer behavior", and attitudes were defined as affective responses (1999, p. 24). Therefore people who trusted in food advertisements might be more likely to hold positive attitudes toward those advertisements, which further encouraged their purchase and consumption of the advertised foods.

Trust in advertisements had also been found to directly influence purchase and consumption. According to Li and Miniard, trust in advertising "affects consumers' value perceptions and impacts consumers' choices" (Li & Miniard, 2006, p. 1). These perceptions could influence purchase and consumption behaviors. Thus if people trusted unhealthy food advertising, it might encourage them to purchase and consume those unhealthy foods. Because unhealthy eating behaviors (e.g., high intake of sugar and calories) increased the risk of being overweight or obese and trust in food advertisements influenced purchase and consumption of foods, in order to lessen obesity and unhealthy eating behaviors, it was important to understand trust in food advertisements (H. Chang & Nayga, 2010; H.-H. Chang & Nayga, 2009).

CHAPTER 3. RESEARCH QUESTIONS AND HYPOTHESES

3.1 Family Communication and Memorable Messages

Some studies investigated the influence of family communication on children's consumer learning and consumer decision-making styles (Carlson, Walsh, Laczniak, & Grossbart, 1994; C. Kim et al., 2009; Lackman & Lanasa, 1993; Moore & Moschis, 1978; Moschis, 1985), but to my knowledge no studies had considered how family communication influences children's trust in food advertisements in the short-term or the long-term. As Rimer and Glassman (1984) suggested, a message must be recalled later than the initial exposure in order to influence behaviors. Thus it was necessary to understand the long-term effects of family communication on children's trust in food advertisements because they helped explain the development of life-long eating behaviors.

This study addresses the issue of long-term effects of family communication on children's trust in food advertisements by using memorable messages. Memorable messages were defined as "verbal messages which may be remembered for extremely long periods of time and which people perceive as a major influence on the course of their lives" (Knapp et al., 1981, p. 27). According to Smith, "Memorable messages are general statements that describe how to behave." (Smith & Ellis, 2001, p. 156). It was important to understand effects of memorable messages in that they motivated people's subsequent behaviors (Davis, 2011). Recent studies examined the effects of memorable messages on a variety of health behaviors (Anderson, Bresnahan, & DeAngelis, 2014; Davis, 2011; Johnson, Orbe, & Cooke-Jackson, 2014; Lauckner et al., 2012; Reno & McNamee, 2014; Smith, Atkin, Skubisz, Nazione, & Stohl, 2009).

Smith (2009) found that people (or their friends) who had experienced breast cancer were more likely to recall memorable messages about breast cancer than others. Another exploratory investigation examined memorable messages about breast cancer to discover if they were framed, either gain-framed (benefits) or loss-framed (costs) (Lauckner et al., 2012). This study found that about 25% of the messages were framed. More specifically, most messages were gain-framed. One study indicated that negative body memorable messages, aiming to encourage people lose weight or increase muscle tone, were often found to discourage people and lead to less body satisfaction (Anderson et al., 2014). Reno (2014) analyzed 210 sorority members' memorable messages concerning weight and physical appearance, a majority of which was positive and complimentary. However these messages were found to have both positive and negative influence on members' body images and related behaviors. Davis conducted focus groups to identify what specific components made messages memorable (Davis, 2011). The results revealed that "personal relevance, message vividness, and concrete heuristics increase memorability." (Davis, 2011, p. 67) Johnson et al. (2014) "delineated source-based themes of memorable messages that provide insight into how current sexual beliefs, attitudes, and practices are informed by a variety of socializing agents" (p. 303). This study indicated that "influential messages stem from direct talks with family and friends, personal experiences, and the experiences of other people, whether close, related, mediated, or general others" (Johnson et al., 2014, p. 318).

Considering that the influences of memorable messages are not yet fully understood, more efforts are necessary to comprehend their influence. In order to develop long-term effective persuasive messages to encourage life-long healthy eating behaviors, memorable messages were worthwhile to investigate. Only one study examined most frequent food rules recalled by college

students; these messages included “clean your plate at each meal,” “you must eat your vegetables at dinner,” “you cannot have dessert until you finish your meal,” “you have to at least try or taste new foods,” and “don’t take more than you can eat.” (Puhl & Schwartz, 2003, p. 287). Because rationales and approaches are significant components of persuasive messages, my study went beyond the findings of Puhl & Schwartz (2003) to examine whether parental messages college-age people recalled about healthy eating included a rationale or not, and whether they used a promoting approach or an attacking approach.

3.1.1 Message Rationale

A prior study showed that people were more likely to recall the events for which they understood the rationale (Hastie, 1984). Hence I expected that people were also more likely to recall messages for which they knew and understood the rationale. In other words, I hypothesized that a majority of recalled messages about healthy eating included their parents’ rationales. Namely, people were more likely to remember parental messages with a rationale such as “Do not drink Coke! It contains too much sugar. The high intake of sugar rots your teeth”, rather than simple messages like “Stop drinking coke.” Therefore, I posed the following:

RQ1: What parental messages are people more likely to recall about healthy eating?

H1: People are more likely to recall parental messages with a rationale about healthy eating than messages without a rationale.

As mentioned above, messages with a rationale were expected to be more likely to be recalled, rational persuasion, which provided audiences a rationale, was a focus of this study. Yukl and Tracey defined rational persuasion as “the person uses logical arguments and factual evidence to persuade you that a proposal of request is viable and likely to result in the attainment of task objectives” (1992, p. 526). According to Atkin, “A message is more persuasive if the

audience is provided with reasons for adopting the target response. Rather than simply exhorting individuals to act in a specified way, it is preferable to present message content that links the desired health behavior to valued attributes or consequences that serve as positive incentives” (1994, p. 100). Rational persuasion was found to promote both attitude and behavior change (Staub, 1972). Because there was a strong relationship between people’s trust in advertisements and their attitudes toward advertisements, it was reasonable to assume rational persuasion also influenced trust in advertisements (Okazaki et al., 2007). Thus in the context of family communication, it was necessary to learn how rational persuasion influenced trust in food advertisements. As O’Keefe mentioned, the persuasive effects were more persistent “when persuasion is the result of thoughtful consideration of issues and arguments as opposed to the result of reliance on heuristics” (2002, p. 258). Because persuasive messages with a rationale require thoughtful consideration, the effects of them should be lasting. Therefore, it was reasonable to expect that people who recalled parental messages with a rationale about healthy eating might have a different level of trust in food/drink advertisements with people who recalled parental messages without a rationale.

RQ2a: Do memorable message rationale influences trust in unhealthy food/drink advertisements?

RQ2b: Do memorable message rationale influences trust in healthy food/drink advertisements?

3.1.2 Promoting vs. Attacking Approach

In health communication, two basic strategies were always used to advocate target responses (e.g., attitude, behavior): promoting healthy behavior (e.g., “Eat healthy foods”) or attacking unhealthy behavior (e.g., “Don’t eat unhealthy foods”) (Atkin, 1994). There was no previous

study that examined whether the promoting approach versus the attacking approach could be recalled in parental message about healthy eating or how these approaches worked on trust in food/drink advertisements. Several studies showed that persuasive messages using the promoting approach was more effective than using the attacking approach, with regard to prevention behaviors, for example using sunscreen lotion to prevent skin cancer and do physical exercise to prevent obesity (Raj, Stoner, & Arora, 2006; Rothman, Salovey, Antone, Keough, & Martin, 1993). Increasing consumption of healthy foods/drinks and reducing intake of unhealthy foods/drinks are considered to be necessary solutions to prevent obesity. Therefore, I expected that promoting approach was would be effective in motivating healthy eating behaviors by influencing trust in healthy/unhealthy food/drink advertisements. Thus I proposed the following question and hypotheses:

RQ3: Which approach (promoting/attacking) are people more likely to recall?

H2a: Promoting approach will decrease trust in unhealthy food/drink advertisements.

H2b: Promoting approach will increase trust in healthy food/drink advertisements.

3.2 Family Communication Patterns

Family communication patterns were found to influence children's consumer skill learning and consumer behavior, such as use of market information, attitudes toward advertisements and decision-making styles (Carlson et al., 1994; C. Kim et al., 2009; Lackman & Lanasa, 1993; Moore & Moschis, 1978). Family communication patterns involved two different dimensions: conformity orientation (i.e., socio-orientation) and conversation orientation (i.e., concept-orientation). Ritchie (1991) defined conformity-orientation as the communication pattern where a parent enforced their thinking into their children's belief systems. Under a

conformity orientation, children's free expression of ideas was discouraged. By contrast, a conversation-oriented family communication pattern described parents who encouraged their children to develop and express their own thinking. An independent child might challenge parents' beliefs about certain topics, and such behavior was encouraged. In short, conformity-orientation was associated with parental assertion of power and control while conversation-orientation was associated with supportiveness and open communication (Ritchie, 1991). Children who experienced conformity-oriented family communication adhered to their parents' control of consumer learning while children who experienced conversation-oriented communication were encouraged to develop their own consumer skills and consumer behavior such as trust in advertisements and attitude toward advertisements (Carlson, Grossbart, & Tripp, 1990; Lackman & Lanasa, 1993). Based on this finding, I further assumed family communication patterns would influence trust in food/drink advertisements. More specially, I expected that people who experienced more conversation-oriented family communication developed better consumer skills such as understanding of marketing strategies, thus they would be less likely to trust either unhealthy or healthy food/drink advertisements. While people who experienced more conformity-oriented family communication did not understand marketing strategies, hence they would be more likely to trust both unhealthy and healthy food/drink advertisements. Thus, I suggested the following:

H3a: Conversation-oriented family communication will lead to decreased trust in unhealthy food/drink advertisements.

H3b: Conformity-oriented family communication will lead to increased trust in unhealthy food/drink advertisements.

H3c: Conversation-oriented family communication will lead to decreased trust in unhealthy food/drink advertisements.

H3d: Conformity-oriented family communication will lead to increased trust in healthy food/drink advertisements.

3.3 Skepticism toward General Advertisements

Since 1970s, advertising researchers found a continuing rise of consumers' skepticism toward advertisements ("Growing ad skepticism," 1981). "Because advertising is associated with selling and tends toward exaggerating, especially as claims are more difficult to substantiate, consumers are socialized to be skeptical. " (J. Kim, 2015, p. 358) Obermiller and Spangenberg defined consumer skepticism as the "tendency toward disbelief of advertising claims" (1998, p. 1), and is inherently negatively related to trust in advertisements. According to Mangleburg and Bristol, "skepticism is conceptualized as an outcome of the socialization process, a negatively valenced attitude learned through interaction with the three socialization agents: parents, peers, and the mass media." (1998, p.1) One study showed that the longer people watched television the more skepticism toward commercial advertisements they developed (Mangleburg & Bristol, 1998). This might be due to the fact that "the more ads one sees, the more likely one may be to recognize differences among ads in truthfulness, and hence to become more skeptical towards ads" (Goneau, 2004, p. 106). Obermiller and Spangenberg (2005) indicated that people who were skeptical toward advertisements were generally less likely to hold positive attitudes toward advertisements. More specifically, those skeptics "like it less, believe it less, and believe it is less influential" and thought information from advertisements was not worth processing (Obermiller, Spangenberg, & MacLachlan, 2005, p. 15) Another study showed that relevance of message

would generate the consumer's interest and trust in advertisements, which then decreased their skepticism toward advertisements (Khuhro, Bhutto, & Sarki, 2015). Additionally, the effects of skepticism toward advertisements would be lessened by the confusion reduction of advertising messages.

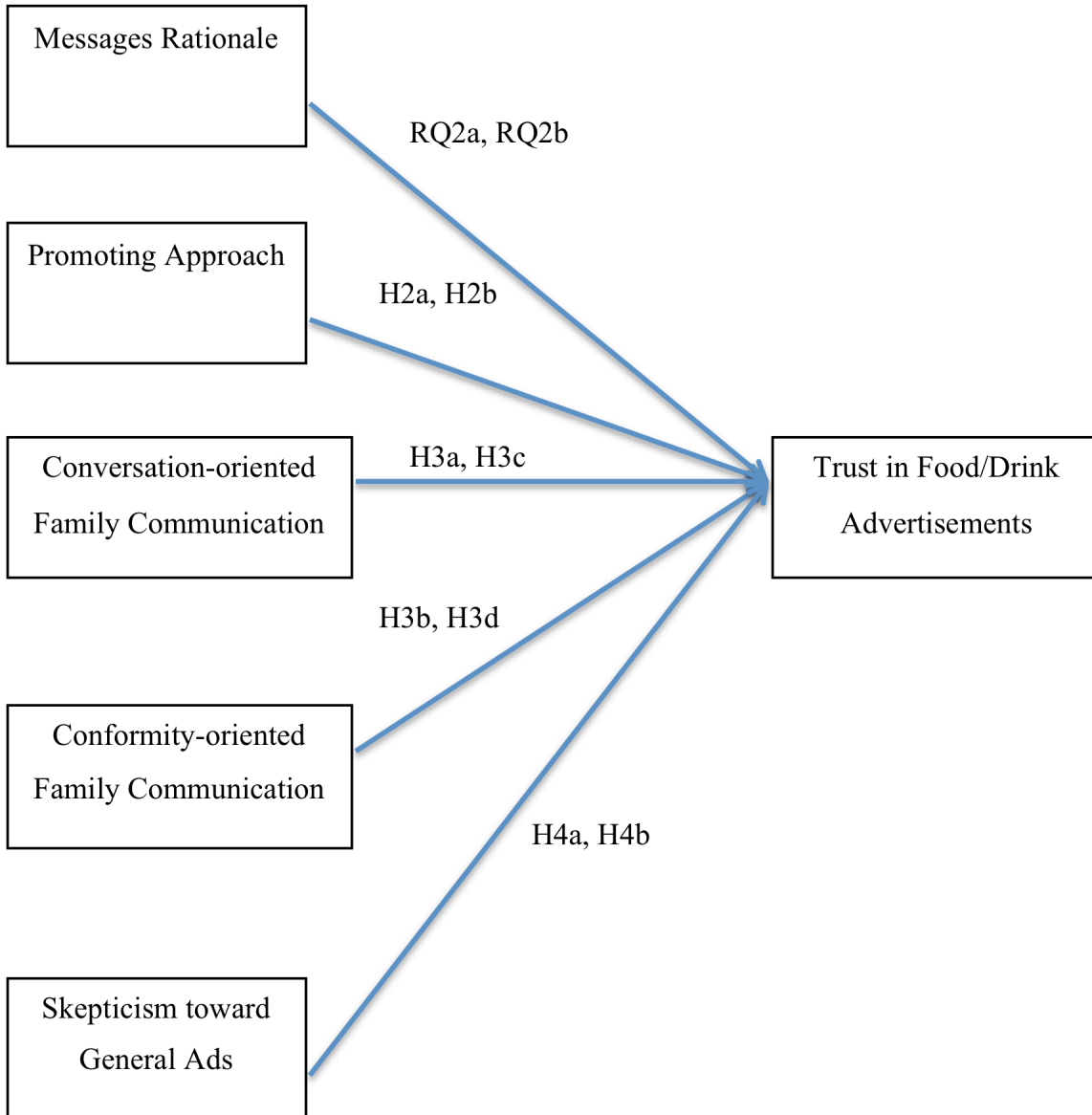
It was possible that young adults were highly skeptical toward general advertisements, in addition to memorable messages and family communication patterns, that influence trust in food/drink advertisements. Thus skepticism toward general ads was included in this study. I hypothesized that skepticism toward general advertisements was negatively related to trust in healthy/unhealthy food/drink ads.

H4a: Skepticism towards general advertisements will be negatively related to trust in unhealthy food/drink advertisements.

H4b: Skepticism towards general advertisements will be negatively related to trust in healthy food/drink advertisements.

Figure 2

Relationship between Independent Variables and Dependent Variables



CHAPTER 4. METHODS

4.1 Selection of Food Brands

According to Mintel Reports (Table 1), a majority of people (age 18-24) frequently consumed chocolate, crackers, yogurt, potato chips, juice and nuts. In order to achieve realism and minimize participants' brand familiarity and brand loyalty as well as to find the most appropriate food brands for the main study, seven British brands and seven Australian brands were chosen for a pilot study. These included two potato chip brands (i.e., Walkers, Smith's), two chocolate brands (i.e., Cadbury Dairy Milk, Haigh's), two soda brands (i.e., Schweppes, Kirks Pasito), two cracker brands (Ryvita, Arnott's), two yogurt brands (i.e., Muller, Vaalia), two nut brands (i.e., KP, Nobbys) and two juice brands (i.e., Jucee, Goldren Circle) (Appendix 1). In the main study, the foods/drinks of the brands which most participants in the pilot study were not familiar with or reported as extremely healthy/unhealthy were included.

Table 1
Food Consumption

Food Categories	Ratio (Base: Internet Users Age 18-24), Consume at Least Once A Week	Year of Survey
Chocolate	45% (231)	2015
Cracker	78% (179)	2014
Yogurt	78% (200)	2014
Food Categories	Ratio (Base: Internet Users Age 18-24), In Past Six Months, Consumed this Product	Year of Survey
Potato Chips	77% (260)	2013
Juice	80% (270)	2014
Nuts	83% (260)	2014

2

4.2 Pilot Study

The goal of the pilot study was to check inter-coder reliability on coding of memorable messages, participants' healthiness perceptions of food/drink brands and their brand familiarity to find out the most appropriate four brands for the main study. Upon acquiring institutional review board (IRB) approval for this study, forty-one students (age 18-28) at Michigan State University, who were native speakers of English, were recruited by the SONA system for this pilot study. Participants were invited to take a web-based experiment for extra credit. The

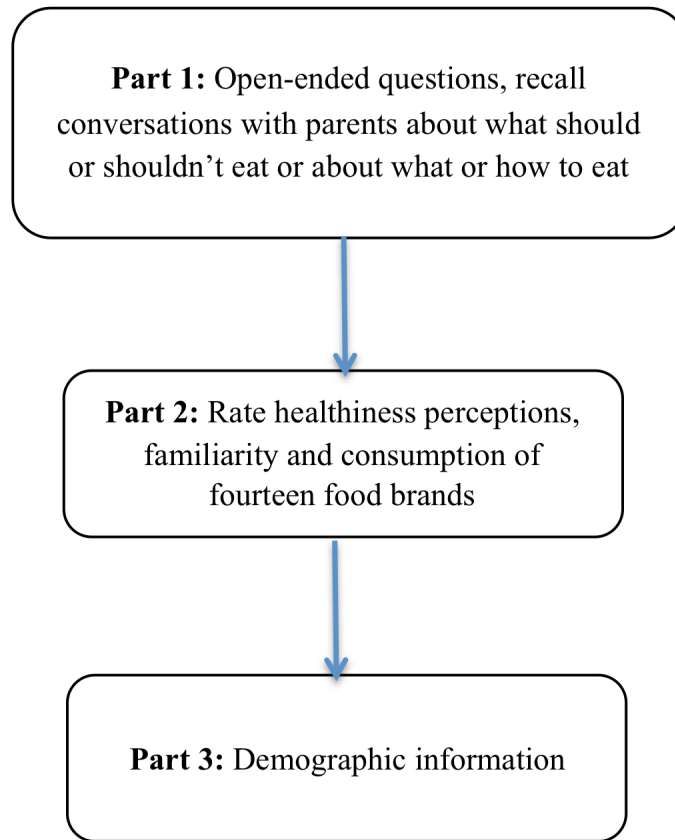
² Table 1 was developed by the researcher of this study based on Mintel Reports.

duration of this study was fifteen minutes. Participants who did not fail any lie detector questions were compensated with 0.25 SONA credit for participation.

In part one, I administered a survey with open-ended questions to ask participants to recall conversations with their parents about what they should or shouldn't eat or about what or how to eat. In part two they were asked to rate their healthiness perceptions, familiarity and consumption of fourteen foods/drinks: two potato chip brands (i.e., Walkers, Smith's), two chocolate brands (i.e., Cadbury Dairy Milk, Haigh's), two soda brands (i.e., Schweppes, Kirks Pasito), two cracker brands (Ryvita, Arnott's), two yogurt brands (i.e., Muller, Vaalia), two nut brands (i.e., KP, Nobbys) and two juice brands (i.e., Jucee, Golden Circle) based on 7-point semantic differential scales: this food/drink is: (1) unhealthy/healthy; (2) bad for my body/good for my body; and (3) harmful/beneficial. Additionally, I asked participants to indicate their consumption of each of the fourteen foods/drinks during the past week, as well as brand familiarity. In part three, they were asked about demographic information (Appendix 2).

Figure 3

Pilot Study Survey Flow



Based on the results presented in Table 2, for the Smith's potato chips and Kirks Pasito soda, participants perceived them as extremely unhealthy but were not familiar with these brands; for the Ryvita crackers and Vaalia yogurt, participants perceived them as extremely healthy but were not familiar with these brands. Considering these findings, Smith's, Kirks Pasito, Ryvita and Vaalia were included in the main study.

Table 2
Descriptive Statistics of Pilot Study

Brand	Perception of Healthiness Scale	Familiarity Scale	Consumption Mean	Number of days of consumption last week
Golden Circle	4.4	1.54	2	1
Jucee	3.39	1.46	2	1
Arnott's	5.5	1.54	2	1
Ryvita	5.07	1.34	2	1
Muller	5.19	2.37	1.95	1.02
Vaalia	5.37	1.59	2	1
KP	3.85	1.39	2	1
Nobbys	4.23	1.29	1.98	1
Cadbury Dairy Milk	2.29	3.98	1.95	1.02
Haigh's	2.21	1.63	2	1
Walkers	2.25	1.27	1.98	1
Smith's	2.15	1.39	2	1
Schweppes	3.18	3.1	2	1
Kirks Pasito	2.52	1.22	1.98	1

N=41

Note: All Alpha for Perception of Healthiness Scale is above 0.85; Perception of Healthiness Scale ranges from 1 (Unhealthy) to 7 (Healthy); Consumption mean is coded Yes = 1 and No = 2; Number of days of consumption last week: Never=1, 1-3days=2, 4-6days=3, More than 6 days=4

4.3 Development of Codebook and Inter-coder Reliability Check

To generate specific codes for memorable messages, memorable messages from the pilot study were qualitatively examined by using Open Coding Analysis (Strauss & Corbin, 1990). “The process of open coding begins with the collection of raw data (e.g., interviews, field notes, art, reports, diaries). The intent of open coding is to break down the data into segments in order to interpret them. Detailed word-by-word and line-by-line analysis is conducted by researchers asking what is going on. The researcher discovers, names, defines, and develops as many ideas and concepts as possible without concern for how they will ultimately be used” (Benaquisto, 2008, p. 582). Guided by previous literature, several coding schemes were developed: content (i.e., general eating behavior, foods/drinks and unrelated to healthy/unhealthy eating), approach (i.e., promoting healthy behavior and attacking unhealthy behavior), source (i.e., mother, father, both and did not mention), rationale (i.e., message has (does not have) a rationale), framing (i.e., gain-framed and loss-framed) and good quote (i.e., typical message) (Appendix 3). For the purpose of this study, I focused on two schemes: rationale and approach.

As Lorr and McNair suggested, “Inter-rater agreement for a new set of judges given a reasonable but practical amount of training...would represent a more realistic index of reliability” (1966, p. 133). Three students, including the PI, coded memorable messages separately, and the inter-coder reliabilities were checked to make sure there was a high level of agreement on understanding and interpreting variables. In the first session, three coders coded memorable messages of the first twenty participants separately and achieved an agreement level of 75%. The codebook was then improved based on three coders’ discussion and any conflicts were considered and adjudicated. In the second session, three coders coded messages of the remaining twenty-one participants separately and achieved agreement of 95%, which accomplished eligible requirement for main study coding.

4.4 Main Study

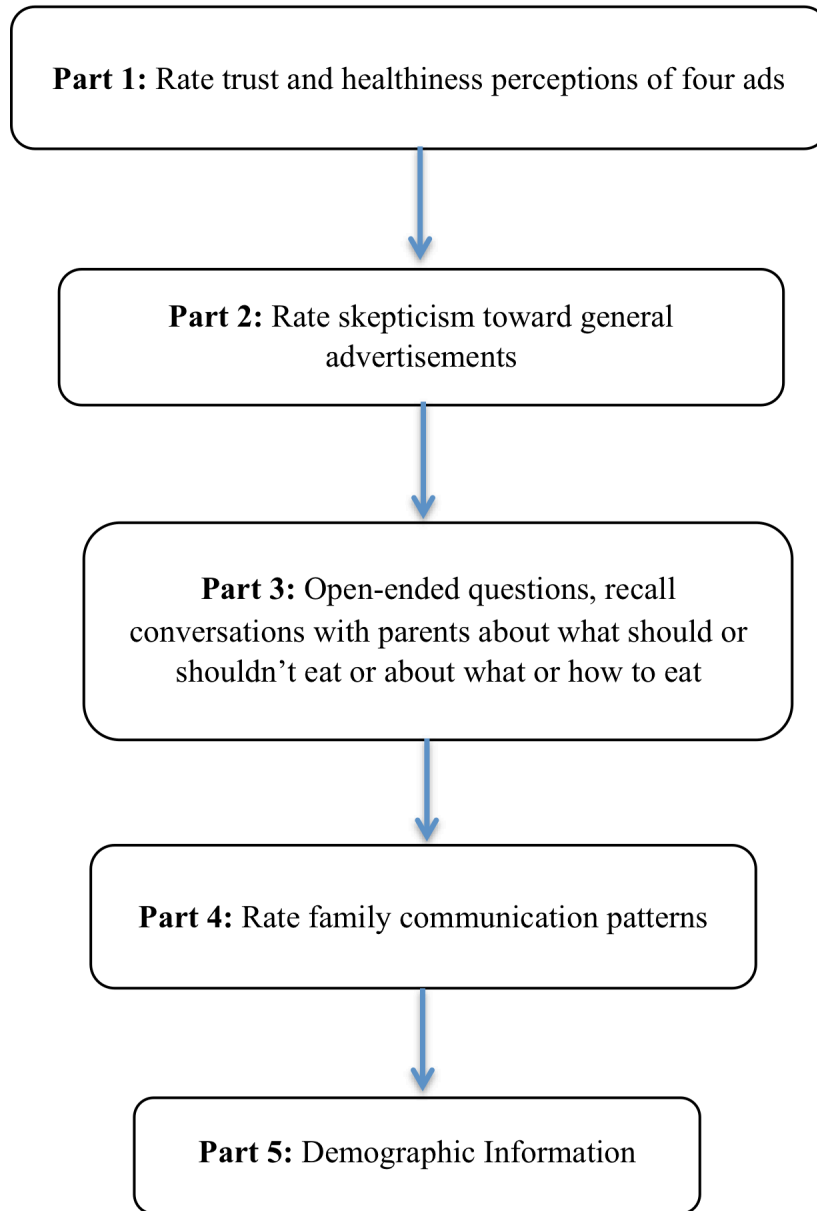
The eligibility requirements for participants were to be with the age range of 18-28 and used English as their first language. One hundred and sixty-three participants (age 18-28), who were native English speakers, were recruited from Amazon Mechanical Turk (mTurk) and forty participants were recruited from SONA credit pool. However, 20.3% (thirty-three) of all participants from mTurk and 30% (twelve) from SONA credit pool failed the lie detector questions. Additionally, eight participants were eliminated from the data analysis because of missing data. Therefore, responses from a total of one hundred and fifty participants (N=150) were included in the final data analysis. The duration of this study was twenty minutes to complete all sections of the survey. Participants from mTurk who did not fail any lie detector

questions were compensated with \$5 and participants from SONA credit pool who did not fail any lie detector questions were compensated with 0.50 credits for participation. Finally,

In the main study, I first showed participants a total of four ads (i.e., Smith's, Kirks Pasito, Ryvita and Vaalia) one by one and asked them to rate their trust, and their healthiness perceptions of the ads (Appendix 4). Second, I asked them to rate how they perceived advertisements in general, aiming at checking their skepticism toward general ads. Third, I administered a survey with open-ended questions to ask participants to recall conversations with their parents about what they should or shouldn't eat or about what or how to eat. Fourth, I asked them to rate their perceived family communication patterns. Finally they were asked a set of demographic questions (Appendix 5). Figure 3 presents the research method.

Figure 4

Main Study Survey Flow



4.5 Measurement

In the main study, the ADTRUST scale was used to examine participants' trust in food advertisements (Soh et al., 2009) (Table 1). ADTRUST scale exhibits high levels of internal consistency for its four dimensions: reliability, 0.96; usefulness, 0.88; affect, 0.83; and willingness to rely on, 0.89. Responses were on a 7-point Likert scale, higher scores meaning stronger trust.

Table 3

Trust in Advertisements Scale

The information conveyed in this advertisement is:
Honest
Truthful
Credible
Reliable
Dependable
Accurate
Factual
Complete
Clear
Valuable
Good
Useful
Helps people make the best decisions
Likable
Enjoyable
Positive
I am willing to consider the information from this advertisement when making purchase decisions.
I am willing to rely on the information from this advertisement when making purchase decisions.
I am willing to make important purchase decisions based on the information from this advertisement.
I am willing to recommend the product that I have seen in this advertisement to my friends or family.
Note: Range from 1 (strongly disagree) to 7 (strongly agree)
Alpha (20 items): 0.9698(Smith's); 0.9669(Kirks); 0.9748(Ryvita); and 0.9727(Vaalia)

Family Communication Pattern Instrument was used to measure their perceived family communication patterns: conversation-orientation (alpha=0.9638) with higher scores meaning stronger conversation orientation and conformity-orientation (alpha=0.8797) with higher scores

meaning stronger conformity orientation (Ritchie & Fitzpatrick, 1990) (Tables 3, 4). Responses were on a 5-point Likert scale.

Table 4

Conversation-Oriented Family Communication Scale

When you were a child:

In our family we often talked about topics like politics and religion where some persons disagree with others.

My parents often said something like “Every member of the family should have some say in family decisions.”

My parents often asked my opinion when the family was talking about something.

My parents encouraged me to challenge their ideas and beliefs.

My parents often said something like “You should always look at both sides of an issue.”

I usually told my parents what I was thinking about things.

I could tell my parents almost anything.

In our family we often talked about our feelings and emotions.

My parents and I often had long, relaxed conversations about nothing in particular.

I really enjoyed talking with my parents, even when we disagreed.

My parents liked to hear my opinions, even when they didn’t agree with me.

My parents encouraged me to express my feelings.

My parents tended to be very open about their emotions.

We often talked as a family about things we had done during the day.

In our family we often talked about our plans and hopes for the future.

Note: Scale ranges from 1 (strongly disagree) to 5 (strongly agree);

Alpha: 0.9638

Table 5

Conformity-Oriented Family Communication Scale

When you were a child:
My parents often said something like “You’ll know better when you grow up.”
My parents often said something like “My ideas are right and you should not question them.”
My parents often said something like “A child should not argue with adults.”
My parents often said something like “There are some things that just shouldn’t be talked about.”
My parents often said something like “You should give in on arguments rather than risk making people mad.”
When anything really important was involved, my parents expected me to obey without question.
In our home, my parents usually had the last word.
My parents felt that it was important to be the boss.
My parents sometimes became irritated with my views if they were different from theirs.
If my parents didn’t approve of it, they didn’t want to know about it.
When I was at home, I was expected to obey my parents’ rules.

Note: Scale ranges from 1 (strongly disagree) to 5 (strongly agree);
Alpha: 0.8797

Participants’ skepticism toward general advertisements was checked by utilizing SKEP scale (alpha=0.9638) with higher numbers indicating higher skepticism (Obermiller & Spangenberg, 1998) (Table 5). The responses are on a 5-point Likert scale. For the qualitative data, three coders coded one-third of memorable messages separately referring to the codebook improved from the pilot study.

Table 6
Skepticism toward General Advertisements Scale

Questions:
We can depend on getting the truth in most advertising.
Advertising's aim is to inform the consumer.
I believe advertising is informative.
Advertising is generally truthful.
Advertising is a reliable source of information about the quality and performance of products.
Advertising is truth well told.
In general, advertising presents a true picture of the product being advertised.
I feel I've been accurately informed after viewing most advertisements.
Most advertising provides consumers with essential information.
Note: Scale ranges from 1 (strongly agree) to 5 (strongly disagree); Alpha (9 items): 0.9638

4.6 Analytic Strategy

The first step in this analysis was to examine the percentage of messages with a rationale out of all messages and the percentage of messages utilizing a promoting approach/attacking approach out of all messages. Thus, this analysis answered RQ1, H1 and RQ3 by presenting a frequency distribution of these messages. The rest of the analysis focused on explaining variation in trust in food advertisements. Using nested OLS regressions, this analysis examined how trust in advertisements was related to the message rationale, the promoting approach and family communication patterns (i.e., conversation orientation and conformity orientation). Two nested OLS regression models were used because the dependent variables (i.e., trust in unhealthy food/drink ads and trust in healthy food/drink ads) were constructed using a continuous scale. Nested OLS regression is particularly fitting in this study because it revealed the underlying mechanism among independent variables as to the strength of their effects on dependent variables (i.e., trust in unhealthy food/drink ads and trust in healthy food/drink ads). In one of

two regression models, independent variables were the message rationale, the promoting approach, the conversation-oriented family communication, the conformity-oriented family communication and skepticism toward general advertisements; the dependent variable was trust in unhealthy food/drink ads. RQ2a was answered, and H2a, H3a, H3c as well as H4a were tested by the first regression analysis. In the second regression model, independent variables were the message rationale, the promoting approach, the conversation-oriented family communication, the conformity-oriented family communication and skepticism toward general ads; the dependent variable was trust in healthy food/drink ads. RQ2b was answered, and H2b, H3b, H3d as well as H4b were tested by the second regression analysis. Since age and gender were frequently examined as control variables in social science research (Baron & Kenny, 1986; Laljiani, 1990; Findley & Cooper, 1983; Umberson, 1987), the control variables of this study were gender and age.

CHAPTER 5. RESULTS AND DISCUSSION

5.1 Descriptive Statistics

In the main study, 43% of participants (N=150) were female and 57% were male with an average age of 25.03. In order to test H1, which posited that messages with a rationale (vs. no rationale) are more likely to be recalled, percentage of recalled messages including a rationale was checked. 73% of participants recalled messages with a rationale while 27% recalled messages without a rationale. A chi-square goodness of fit test was calculated comparing the frequency of occurrence of participants recalled messages with a rationale and participants recalled messages without a rationale. It was hypothesized that each value would occur an equal number of times. Significant deviation from the hypothesized values was found ($X^2(1)=30.83$, $p < 0.05$). Therefore, RQ1 was answered- i.e. messages with a rationale are more likely to be recalled and H1 was supported. In answer to RQ3-which type of approach, promoting or attacking would be recalled, I found that 89% of participants recalled messages using the promoting approach while 11% recalled messages using the attacking approach.

Table 7
Descriptive Statistics of Main Study

Variables	Coding	Mean	Min	Max
<u>Memorable Message</u>	Messeage has rationale at some points = 1; other =0	0.73	0	1
Rationale				
Promoting Approach	Messeage uses promoting approach at some points = 1; other =0	0.89	0	1
<u>Family Communication Pattern</u>	Scale of 1 to 5, 5 = strongest indication of conversation orientation	2.89	1	5
Conversation Orientation				
Conformity Oientation	Scale of 1 to 5, 5 = strongest indication of conformity orientation	3.18	1.36	5
<u>Demographic Controls</u>				
Female	Female = 1; Male = 0	0.43	0	1
Age	Respondents' age at time of the survey	25.03	20	29
<u>Skepticism toward General Advertisements</u>	Scale of 1 to 5, 5 = strongest indication of skepticism toward general advertisements	3.47	1	5
Note: The constructions of Family Communication Pattern scales and Skepticism toward General Advertisements scales are speicified in Table 4 to 6				N = 150

Before conducting nested OLS regressions, I checked for consistency between the results about healthiness perceptions of these four products from the pilot study and the results from the main study based on 7-point semantic differential scales: this food/drink is: (1) unhealthy/healthy; (2) bad for my body/good for my body; and (3) harmful/beneficial. The histogram in Figure 5 demonstrated that the distribution of the healthiness perception of Smith's potato chips was negatively skewed. This suggested that the majority of the participants scored low in this scale, meaning the majority of them perceived Smith's as unhealthy (Figure 5). The histogram in Figure 6 was the histogram of healthiness perception of Kirks Pasito soda as it demonstrated the distribution of the healthiness perception of Kirks Pasito was not right-skewed. This suggested that a majority of the participants did not perceive Kirks Pasito as unhealthy. In fact, the vast majority of participants scored Kirks Pasito above 4, meaning that they perceived Kirks Pasito as healthy (Figure 6). The histograms in Figures 7 and 8 demonstrated the distribution of the healthiness perceptions of Ryvita crackers and Vaalia yogurt were positively skewed. These

findings suggested a majority of participants perceived Ryvita and Vaalia as healthy because they scored high in the scale for both the healthiness perceptions (Figure 7, 8).

Figure 5

Histogram of Healthiness Perception of Smith's

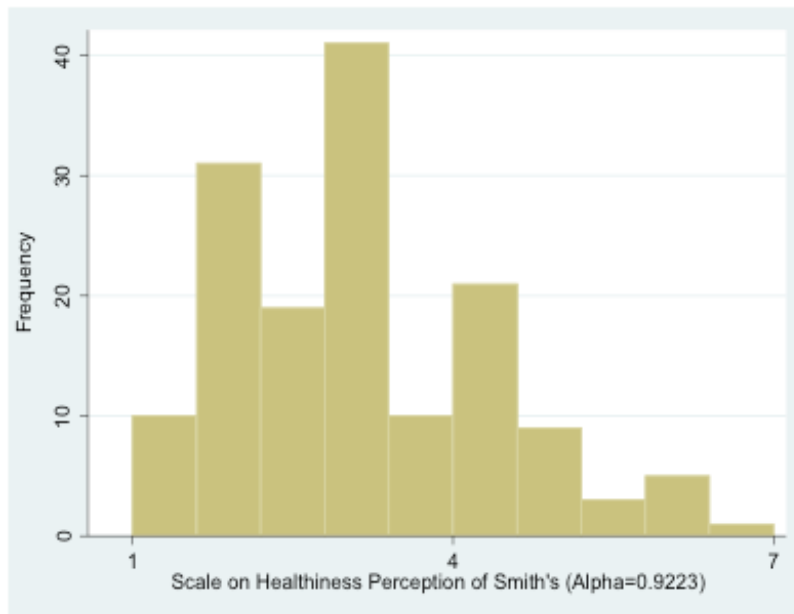


Figure 6

Histogram of Healthiness Perception of Kirks Pasito

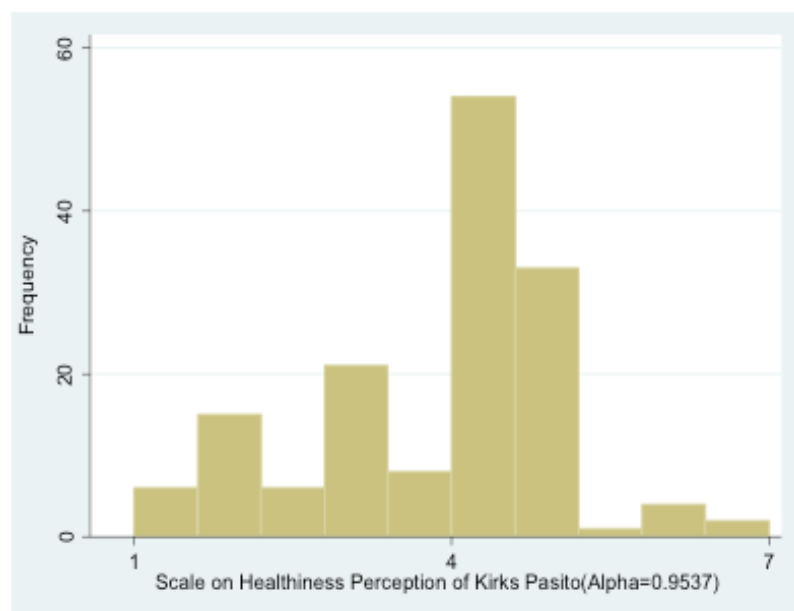


Figure 7

Histogram of Healthiness Perception of Ryvita

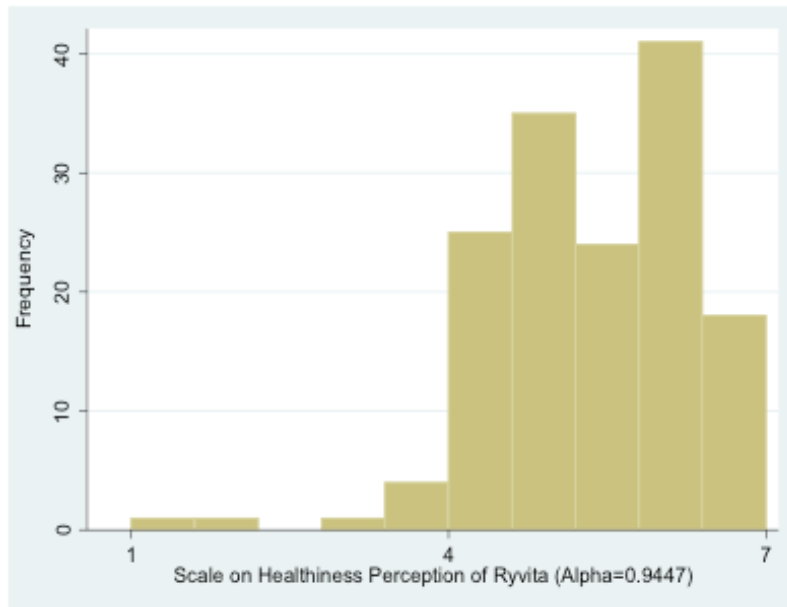
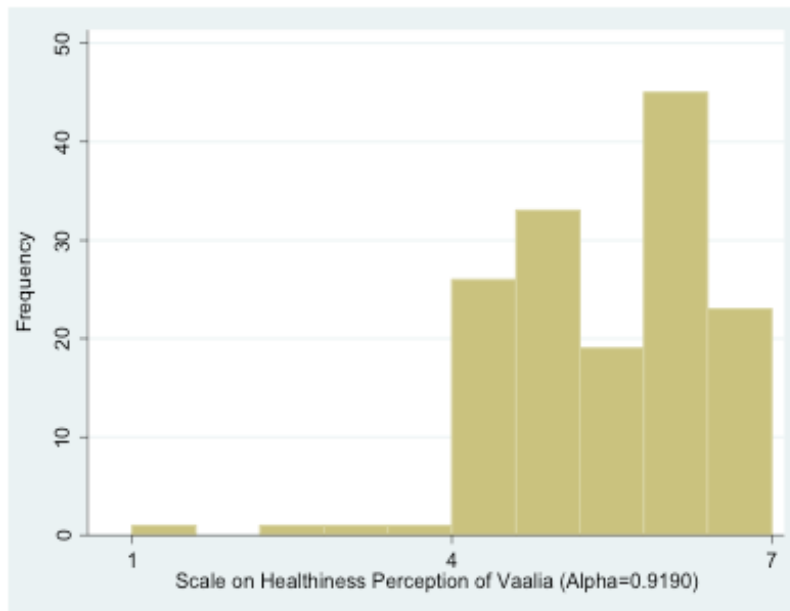


Figure 8

Histogram of Healthiness Perception of Vaalia



In summary, there was general consistency between the results about healthiness perceptions of these two foods and two drinks from the pilot study and the healthiness perceptions in the

main study. For the Ryvita and Vaalia, participants perceived them as healthy. The Smith's participants perceived it as unhealthy, which was consistent with the results from the pilot study, but perceived Kirks Pasito soda as healthy, which was not consistent with the results from the pilot study. This inconsistency might be due to the slogan "This is not just any fruit, this is Kirks Pasito" in the Kirks Pasito advertisement, that made Kirks Pasito soda seem like juice. Considering this inconsistency, trust in Kirks Pasito ad was not included in the final dependent variables.

This study examined two dependent variables: trust in healthy food/drink ads and trust in unhealthy food/drink ads. Table 8 was the result of the nested OLS regression on trust in unhealthy food/drink ads, whereas Table 9 was the result of the nested OLS regression on trust in healthy food/drink ads (Kirks Pasito ad was not included). There were six models in the nested OLS regression: Model 1 only had one independent variable—message has a rationale; Model 2 added the promoting approach; Model 3 added the conversation-oriented family communication; Model 4 added conformity-oriented family communication; Model 5 added gender; and Model 6 added skepticism toward general advertisements. The goal of this nested regression was to discover associations among independent variables as to dependent variables and the strength of those associations.

5.2 Trust in Unhealthy Food/Drink Ads

Table 8 presented the results of trust in unhealthy food/drink ads. The message rationale had no effect across the models. Branen and Fletcher (1999) conducted a study among college students, 29% of respondents recalled parental messages about nutrition while 55% of them currently selected food referring to their parental messages about nutrition." It was possible that

college-age people currently built trust/attitude toward food/drink ads without consideration of parental messages even though they could recall the messages. Therefore, message rationale did not influence trust in unhealthy food/drink ads, which answered RQ2a- i.e. does memorable message with a rationale influence trust in unhealthy food/drink advertisements?

Table 8

Nested OLS Regression on Trust in Unhealthy Food/Drink Advertisements

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<u>Memorable Message</u>						
Rationale	0.086	0.061	0.051	0.005	0.017	0.014
Promoting Approach		0.543	0.554	0.694 *	0.639 *	0.666 *
<u>Family Communication Pattern</u>						
Conversation Orientation			0.036	0.147	0.158	-0.034
Conformity Orientation				0.244	0.226	0.097
<u>Demographic Controls</u>						
Female					-0.436 *	-0.407 *
Age					0.011	0.027
<u>Skepticism toward General Advertisements</u>						-0.566 ***
Intercepts	4.241 ***	3.778 ***	3.670 ***	2.484 **	2.468	4.965 ***
N	150	150	150	150	150	150
R2	0.001	0.022	0.023	0.041	0.077	0.230

*p<0.05, **p<0.01, ***p<0.001

Note: Because the perception of kirks does not match with unhealthy perception, trust in kirk is dropped from this dependent variable

The promoting approach had an interesting effect on trust in unhealthy food/drink ads. First, from Model 5 to Model 6, the promoting approach became significant in the presence of family communication patterns. The promoting approach increased trust in unhealthy food/drink ads, which rejected H2a- that the promoting approach will decrease trust in unhealthy food/drink advertisements.

Unhealthy foods/drinks (e.g., candies, potato chips and soda) were sometimes provided by parents as rewards (Brannen & Fletcher, 1999). Another study showed that foods presented as rewards enhanced children's preference for that food (Sothorn, 2004). This finding might suggest that the more often parents promoted healthy eating the more likely children preferred unhealthy

foods/drinks. The preference of unhealthy foods/drinks might lead to trust in unhealthy food/drink ads. Thus, college-age people held positive perceptions of unhealthy food/drink ads, even though they recalled parental messages promoting healthy eating. It was also possible that people were attracted by the advertising messages, which overcame the lasting effect of memorable messages.

The second finding was a suppression effect among the promoting approach, conformity-orientated family communication and trust in unhealthy food/drink ads. Between Model 3 and 4, the coefficient of the promoting approach increased, and its effect on trust became significant because of the addition of conformity-oriented family communication in Model 4, which indicates a suppression effect. “A predictor is considered a suppressor when the standardized regression coefficient of another predictor (P) is greater than its correspondent validity coefficient³, assuming the predictor (P) is scored in the direction so that it is positively related to the criterion” (Chen & Krauss, 2004, p. 1). Conformity-oriented communication was discovered as a suppressor in the association between promoting approach and trust in unhealthy food ads. The coefficient of conformity-orientated family communication and trust in unhealthy food/ drink ads was positive, while the association between the promoting approach and the conformity-oriented family communication was negative⁴. The promoting approach’s effect carried through conformity-oriented family communication to trust in unhealthy food/drink ads, therefore, was overall negative. In Model 1 to 3 where conformity orientation was not included, promoting approach’s underlying negative effect through conformity oriented family communication somewhat undermined its original positive association with trust in unhealthy ad. When conformity orientation was introduced into Model 4, the effect of the promoting approach

³ “The validity coefficient is a statistical index used to report evidence of validity for intended interpretations of test scores and defined as the magnitude of the correlation between test scores and a criterion variable.” (Salkind & Rasmussen, 2007)

⁴ The bivariate regression result indicated the coefficient between the promoting approach and conformity-oriented family communication was -0.433 with a p-value of 0.036.

was enhanced (beta score increased from .554 to .694) and became statistically significant ($p < 0.05$); the addition of conformity orientation controlled for this underlying negative association hidden in previous models.

Furthermore, the control variables (age and gender) presented interesting findings. Female participants reported, on average, a lower score on trust in unhealthy food/drink ads. On a scale from 1 to 7, female on average scored 0.407 lower than male. One study conducted among college students indicated that significantly higher percentages of women than men agreed that it was important to limit the consumption of carbohydrate and fat to lose weight (Davy, Benes, & Driskell, 2006; Morse & Driskell, 2009). Considering this result, women were more likely than men to hold negative attitudes of unhealthy foods/drinks, which contain high carbohydrate and fat. It was possible that negative attitudes toward food/drink ads gave rise to lower trust in those food/drink ads. Hence female participants were less likely than male participants to exhibit trust in unhealthy food/drink ads.

A negative association between skepticism toward general ads and trust in unhealthy food/drink ads was found because of the opposite function between skepticism toward ads and trust in ads. Therefore, H4a was supported- skepticism towards general advertisements was negatively related to trust in unhealthy food/drink advertisements. In Model 6, when skepticism was included, no existing significant association in Model 5 was affected. However, the R^2 increased from .077 to .23 from Model 5 to model 6. This indicated that skepticism had the best explanatory power for trust in unhealthy food ads. Thus, if people were skeptical toward general ads, nothing else (e.g., memorable messages, family communication patterns) mattered in fostering trust in unhealthy food/drink ads.

Furthermore, family communication patterns (i.e., conversation orientation, conformity orientation) and age were unrelated to trust in unhealthy food/drink ads, which rejected H3a- conversation-oriented family communication did not lead to decreased trust in unhealthy food/drink advertisements. H3b was also rejected- conformity-oriented family communication did not lead to increased trust in unhealthy food/drink advertisements. Because I controlled the age range of participants (18-28) for this study, no significant effect of age on trust in unhealthy food/drink ads was expected; age did not influence trust in unhealthy ads. Participants currently chose what they wanted to eat; therefore, perceived family communication patterns (i.e., conversation/conformity orientation) might not have long-term effect on building trust in unhealthy food/drink ads.

5.3 Trust in Healthy Food/Drink Ads

Table 9 demonstrated the result of trust in healthy food/drink ads. Neither message rationale nor promoting approach had an effect across the models, which answered RQ2b- do memorable message rationale influences trust in healthy food/drink advertisements, and rejected H2b- promoting approach did not increase trust in healthy food/drink advertisements. As mentioned before, it was possible that college-age people selected their foods or built their trust/attitude toward foods without referring to messages from their parents about healthy eating. Another explanation was that promoting or attacking approaches function together with incentive appeals (i.e., rewarding, punishing) (Atkin, 1994). Messages using the attacking approach presented punishing appeals such as fear appeal emphasizing negative consequences of unhealthy behaviors, for instance “Don’t eat sugar! It rots your teeth”, while messages using the promoting approach presented rewarding appeals, for example “Drink more milk! It builds your bones

stronger.” Even though rewarding and punishing appeals were generally labeled as rationales in this study, it was not clear how rewarding versus punishing messages work together with promoting versus attacking approach on trust in advertisements. Future scholars could conduct a 2 (approach)*2 (appeal) factorial design to investigate whether the combinations (e.g. promoting approach and rewarding appeal) have different influences on trust in food/drink advertisements.

Table 9

Nested OLS Regression on Trust in Healthy Food/Drink Advertisements

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<u>Memorable Message</u>						
Rationale	-0.121	-0.113	-0.141	-0.218	-0.220	-0.224
Promoting Approach		-0.168	-0.138	0.099	0.091	0.124
<u>Family Communication Pattern</u>						
Conversation Orientation			0.099	0.286 **	0.303 **	0.058
Conformity Orientation				0.411 **	0.408 **	0.244 *
<u>Demographic Controls</u>						
Female					-0.064	-0.026
Age					0.024	0.044
<u>Skepticism toward General Advertisements</u>						-0.719 ***
Intercepts	4.171 ***	4.314 ***	4.020 ***	2.020 **	1.426	4.600 ***
N	150	150	150	150	150	150
R2	0.002	0.005	0.014	0.073	0.078	0.375

*p<0.05, **p<0.01, ***p<0.001

There were interesting findings as to family communication patterns from the results related to trust in healthy food advertisements. First, from Model 3 to 4, the effect of the conversation-oriented family communication became significant because the inherent negative association between the conformity-oriented and the conversation-oriented family communication, that constituted an underlying negative effect from conversation through conformity to trust in previous models, was controlled in Model 4 by introducing conformity orientation. In other words a similar pattern suppression effect as the trust in unhealthy food ads above took place here again, where conformity was also the suppressor.

Second, between Model 5 and 6, skepticism toward general ads intervened in the association between conversation-oriented family communication and trust in healthy food/drink ads. Hence, conversation-oriented family communication had no effect on trust in healthy food/drink ads, which rejected H3c- conversation-oriented family communication did not lead to decreased trust in unhealthy food/drink advertisements. The association between the conversation-oriented family communication and skepticism toward general ads was negative⁵. This finding was inconsistent with one study that conversation-oriented communication was positively related to skepticism toward ads (Mangleburg & Bristol, 1998). It was possible that participants, who were more accessible to open conversations, were more likely to voluntarily accept information from the outside world and were less skeptical. Therefore, people who experienced conversation-oriented communication were less skeptical toward general ads.

Furthermore, the effect of conformity-oriented family communication was found on trust in healthy food/drink ads. Specifically, people who experienced conformity-oriented family communication had a higher score on trust in healthy food/drink ads, which supported H3d- conformity-oriented family communication did lead to increased trust in healthy food/drink advertisements. Parents held power of motivating consumption of healthy foods/drinks and preventing consumption of unhealthy foods/drinks through conformity-oriented family communication. People who experienced conformity-oriented family communication adhered to their parents' control of consumer behaviors (Carlson, Grossbart, & Tripp, 1990; Lackman & Lanasa, 1993), thus they often consumed healthy foods/drinks if their parents always motivated healthy eating behaviors. It was possible that the more often people consumed healthy

⁵ The bivariate regression result indicated the coefficient between the conversation-oriented family communication and skepticism toward general ads was -0.262 with a p-value < 0.001.

foods/drinks, the more favorable attitudes toward healthy foods/drinks they developed, which then led to trust in healthy food/drink ads.

Nevertheless, skepticism toward general ads' explanatory power of trust in food/drink ads was higher than any of independent variables. Skepticism toward general ads was found negatively related to trust in unhealthy food/drink ads, which supported H4b- skepticism towards general advertisements will be negatively related to trust in healthy food/drink advertisements. Because of the negative association between skepticism toward general ads and trust in ads, when people were skeptical toward general ads, nothing else (e.g., memorable messages, family communication patterns) had as strong a relationship to trust in healthy food/drink ads.

Gender, age and trust in healthy food/drink ads were unrelated. Since I controlled the age range of participants (18-28), no significant effect of age on trust in healthy food/drink ads was expected. Therefore no difference between female and male participants was found on trust in healthy food/drink ads. It was possible that participants might have already developed skepticism toward ads as I discussed above.

CHAPTER 6. CONCLUSION

6.1 Summary

A majority of previous scholars conducted qualitative research to discover what specific components made messages more memorable and which population was more likely to recall messages related to health behaviors (Davis, 2011; Johnson, Orbe, & Cooke-Jackson, 2014; Lauckner et al., 2012; Smith, Atkin, Skubisz, Nazione, & Stohl, 2009). My study examined different components (i.e., rationale, approach) that make parental messages memorable. In response to RQ1, people were more likely to recall messages with a rationale than without a rationale, H1 was supported; in response to RQ3, people were more likely to recall messages using the promoting approach than the attacking approach.

Furthermore, I went beyond previous investigations to combine qualitative and quantitative methods to investigate the influence of memorable messages. Two studies showed memorable messages either positively or negatively influenced body images and related behaviors (Anderson, Bresnahan, & DeAngelis, 2014; Reno & McNamee, 2014). In my study, message rationale had no effect on trust in either unhealthy or healthy food/drink ads, answering RQ2a and RQ2b. The promoting approach increased trust in unhealthy food/drink ads but had no effect on trust in healthy food/drink ads, which rejected H2a and H2b.

In summary, my study indicated that the message rationale and promoting approach made parental messages memorable, but most of these components did not affect trust in food/drink ads. This might be due to the fact that when young adults rated food/drink ads they did not refer to their parents' messages. It was also possible that their consumer cognitions (e.g., trust in ads) were more influenced by social interactions other than parental communication. Another possible

explanation was young adults developed their consumer cognitions based on their knowledge of healthy eating and recognition of marketing strategies as they grew up. Additionally, components other than the message rationale and approaches (e.g., source credibility, source gender) of memorable messages might be influential on trust in food/drink ads.

Family communication patterns did not affect trust in unhealthy food/drink ads, which rejected H3a and H3b. In other words, regardless of which family communication pattern they experienced in their childhood, participants were skeptical toward unhealthy food/drink ads. Family communication patterns might influence people's trust in food/drink ads through affecting people's attitudes toward foods/drinks. It was possible that college-age people already developed their own negative attitudes toward unhealthy foods/drinks as they grew up, which might lead to skepticism toward unhealthy food/drink ads. In addition, the effect of conformity-oriented family communication was observed on trust in healthy food/drink ads but conversation-oriented did not work on trust in healthy food/drink ads, which rejected H3c. More specially, people who experienced conformity-orientated family communication had a higher score on trust in healthy food/drink, which supported H3b. It was possible that people who perceived their family communication as conformity orientation were more likely to adhere to parental messages about selections of healthy foods/drinks. Since they developed positive attitudes toward healthy foods/drinks, they were also more likely to trust healthy food/drink ads.

There was a negative association between skepticism toward general ads and trust in both healthy and unhealthy food/drink ads, which supported H4a and H4b. An intervening effect of skepticism toward general ads was discovered on conversation-oriented family communication and trust in healthy food/drink ads. That is, skepticism overcame the positive impact of conversation-orientation on trust in healthy ads. This might be due to the fact that participants

developed skepticism toward general ads, thus no matter what their experience of family communication in their childhood they were unlikely to trust healthy/unhealthy food/drink ads. Females were less likely than males to trust unhealthy food/drink ads but there was no significant difference between females and males found on trust in healthy food/drink ads.

6.2 Implications

This study provided a foundation for future scholars to understand the effects of memorable messages about healthy eating on consumer cognition, here trust in advertisements. Memorable messages played important roles in other health-related issues such as breast cancer and weight loss (Smith, 2009; Anderson et al., 2014). In the former studies, whether memorable messages had positive or negative influence on advocated attitudes/behaviors were not clear. In this study, two components of memorable messages were examined: message rationale and promoting (attacking) approach. As I expected, promoting approach should be positively related to trust in healthy food/drink ads but negatively related to unhealthy food/drink ads. It was surprising that the promoting approach was found to increase trust in unhealthy food/drink ads. Future scholars might want to study the mechanism of this influence.

The findings of this study also provided implications for marketers. In order to motivate consumers to build trust in their ads and further purchase their products, marketers should devise ways to reduce the effects of consumers' skepticism toward general ads. For example, brands might want to include detailed nutritional information in their advertisements to eliminate consumers' skepticism toward their ads.

To parents, in order to motivate their children to cultivate life-long healthy eating habits, they should ask children to adhere to the guidance of healthy eating behaviors via

conformity-oriented family communication rather than let their children decide whatever they would like to eat. Especially, parents should maintain control of food/drink choices on children. Parents showing a good example by eating healthy themselves might also be helpful.

6.3 Limitations and Future Research

The sample of my study (N=150) was small, further study should generalize to a larger population. Age of my sample was 18 to 28, however, people age 18 might behave quite differently from people age 28, who might have children, so comparing different age cohorts would be interesting. Also, a broader age range needs to be examined to understand if memorable messages are retained throughout one's life. Healthiness perceptions of food/drink ads accompanied by their slogans were not analyzed before the main study, which caused a majority of participants to perceive the Kirks Pasito soda ad as healthy. Further investigation should use more than one product or one advertisement in a product category. It was not known whether or not participants recalled parental messages when they rated their healthiness perceptions of unhealthy and healthy foods/drinks and their trust in unhealthy and healthy food/drink ads. In a future study, researchers should ask if participants recall messages when they rated food (ads). It was also possible that parents educated children to keep healthy eating but ate unhealthy foods themselves. For future research, it is necessary to learn if the interaction between parents' eating behavior and children's memorable messages gave rise to children's perception and consumption of unhealthy foods. Furthermore, only parental communication was examined in this study. Nevertheless, most college-age people might be more influenced by peers, such as friends and siblings. Future study is needed to discover the effects of recalled messages from peers on trust in food/drink ads. This study provided interesting directions for

future research. In the future, researchers should consider examining the effects of incentive appeals (i.e., punishing and rewarding) together with approaches (i.e., promoting and attacking) on trust in food/drink ads. The effects of memorable messages might be observed on trust in ads if, in the study protocol, researchers prompted memorable messages before asking respondents to rate trust in ads. In the future, researchers could randomly assign participants into two groups, with one group rating the ads before recall messages and the other group recall messages before rate the ads, to test for differences.

Even though I did not find an effect of message rationale on trust in unhealthy/healthy food/drink ads, it was possible that the rationale directly influenced purchase intention. When people decided what foods/drinks to buy or consume, they might refer to their parental messages including rationales or using the promoting approach. Therefore it is worthwhile to learn if the message rationale could influence people's purchase behavior. While the promoting approach increased trust in unhealthy food/drink ads, it was not sure whether people who recalled messages using the promoting approach were more likely to purchase and consume unhealthy foods/drinks. It was possible that people who recalled messages using the promoting approach were more likely to purchase and consume healthy foods/drinks versus those who recalled messages using the attacking approach; people recalled messages using the attacking approach were less likely to purchase and consume unhealthy foods/drinks than people recalled messages using the promoting approach. Future study is necessary.

APPENDICES

APPENDIX A

IMAGES OF BRANDS--PILOT STUDY

Figure 9

Unhealthy Food/Drink Brands







Food Brands	Unhealthy Foods/Drinks			
British	 <p>Walkers</p>	 <p>Cadbury Dairy Milk</p>	 <p>Schweppes</p>	
Australian	 <p>Smith's</p>	 <p>Haigh's</p>	 <p>Kirks Pasito</p>	

Figure 10
Healthy Food/Drink Brands

Food Brands	Healthy Foods/Drinks			
British	 <p>Ryvita</p>	 <p>Muller</p>	 <p>KP</p>	 <p>Jucee</p>
Australian	 <p>Arnott's</p>	 <p>Vaalia</p>	 <p>Nobbys</p>	 <p>Golden Circle</p>

APPENDIX B

QUESTIONNAIRE--PILOT STUDY

PART ONE: Memorable Messages

In this section, you will be asked to recall conversations with your parents about what you should or shouldn't eat or about what or how to eat. Write down as many examples as you can think of. To the best of your memory, please write the **exact words** from your parent(s). Note whether the messages came from your mother or your father.

(1) _____

(2) _____

(3) _____

(4) _____

(5) _____

(6) _____

PART TWO: Food Brands

In this section, you will be asked to rate a number of food brands. Use the scale from **1 to 7** to rate each brand. Each page has a picture of the brand. Because Internet connectivity varies, it

might take some time to load the picture on each page. **Please do not answer the questions until the picture has loaded on the page.**

Q1. Please rate this product of this brand displayed in the picture above.

	1	2	3	4	5	6	7	
Unhealthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Healthy
Bad for my body	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Good for my body
Harmful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Beneficial

Q2. How familiar are you with this product from this particular brand?

	1	2	3	4	5	6	7	
Not at all familiar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Extremely Familiar

Q3. In the past week, did you consume this product from this particular brand?

- ☐ Yes
- ☐ No

Q4. In the past week, on how many days did you consume this product from this particular brand?

- ☐ Never
- ☐ 1-3
- ☐ 4-6
- ☐ More than 6

PART THREE: Demographic Information

What is your gender?

- ☐ Female
- ☐ Male
- ☐ Other
- ☐ Choose not to report

In what year were you born? _____

What is your class standing?

- ☐ Freshman
- ☐ Sophomore
- ☐ Junior
- ☐ Senior
- ☐ MA Student
- ☐ Ph.D. Student
- ☐ Other, please specify _____

Which of the following best describes your ethnic background?

- ☐ Caucasian (non Hispanic)
- ☐ Black (non Hispanic)
- ☐ Chicano
- ☐ Hispanic
- ☐ American Indian/Alaskan Native
- ☐ Asian
- ☐ Asian / Pacific Islander
- ☐ Hawaiian / Pacific Islander
- ☐ Other, please specify: _____

APPENDIX C

CODEBOOK--MEMORABLE MESSAGES

CONTENT:

1=General Eating Behavior (e.g., “Home-cooked meal is good for you.” “Stay away from candies before dinner.”)

2=Foods/Drinks (e.g., “Don’t drink too much Coke.” “Eat more vegetables.”)

99=Unrelated to Healthy/Unhealthy Eating (e.g., “Don’t talk with food in your mouth, you look like a pig.”)

Note: Only messages, which were coded as 1 or 2, need to be coded for the other schemes.

APPROACH:

1=Promoting Healthy Behaviors (e.g., “You should eat fruits.”)

2=Attacking Unhealthy Behaviors (e.g., “You shouldn’t eat hamburgers.” “You should reduce intake of sugar.”)

SOURCE:

1=Mother

2=Father

3=Both

4=Did Not Mention

RATIONALE:

1=Has a Rationale (e.g., “Eating deep fried foods will lead to increase in cholesterol level in your body. It is highly dangerous to health.” “My mother would tell me to finish my vegetables, otherwise I'd get sick.” “Fruits are good for your health.” “It has fiber in it, it's good for you.”)

1.1=Specific Rationale (e.g., “Eating deep fried foods will lead to increase in cholesterol level in your body. It is highly dangerous to health.”)

1.2=General Rationale (e.g., “Fruits are good for your health.”)

2=Has No Rationale (e.g., “Eat more fruits.”)

Note: Only messages, which were coded as 1.1, need to be finished for “framing” code.

FRAMING:

1=Gain-framed (e.g., “If you drink milk, your bones become stronger.” “If you don’t eat too much sugar, your teeth won’t rot.”)

2=Loss-framed (e.g., “You will get cavities if you eat a lot of sugar.” “If you don’t eat fruits or veggies, you won’t gain enough vitamins.”)

GOOD QUOTE:

Mark 1 (Message which was typical and good enough for being mentioned in the paper)

APPENDIX D

IMAGES OF ADVERTISEMENTS--MAIN STUDY

Figure 11

Smith's Potato Chips Advertisement



Figure 12

Kirks Pasito Soda Advertisements



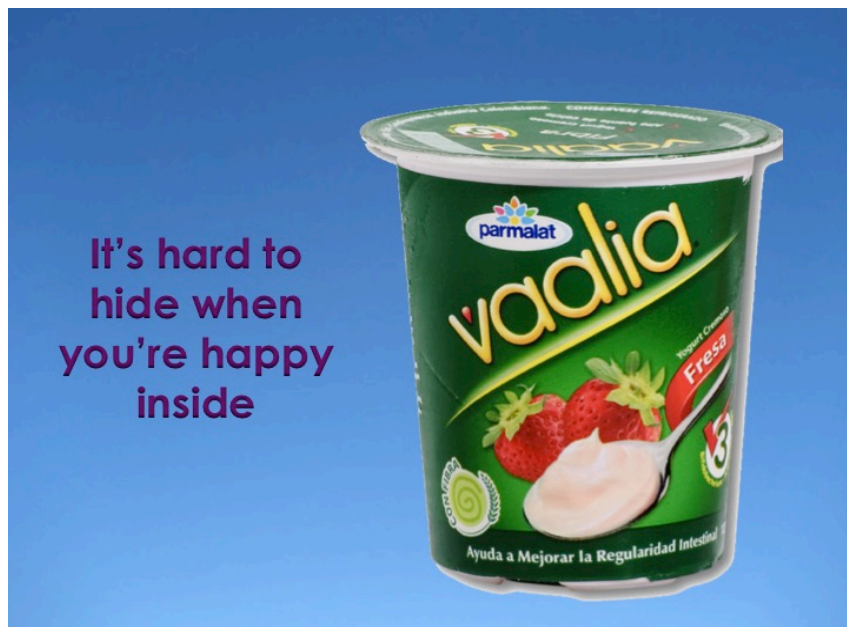
Figure 13

Ryvita Crackers Advertisement



Figure 14

Vaalia Yogurt Advertisement



APPENDIX E

QUESTIONNAIRE--MAIN STUDY

PART ONE: Trust in Advertisement Scale

In this part of the study, you are going to look at several food/drink advertisements. After viewing each advertisement, you will be asked to rate how you perceive the advertisement. Use the scale from **1=Strongly Disagree** to **7=Strongly Agree** to rate each statement. Each page has a picture of the food/drink. Because Internet connectivity varies, it might take some time to load the picture on each page. **Please do not answer the questions until the picture has loaded on the page.**

	Strongly Disagree				Strongly Agree		
The information conveyed in this advertisement is:	1	2	3	4	5	6	7
Honest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Truthful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Credible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reliable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dependable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accurate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Factual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Valuable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Useful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Helps people make the best decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Likable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enjoyable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Positive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I am willing to <u>consider</u> the information from this advertisement when making purchase decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am willing to <u>rely on</u> the information from this advertisement when making purchase decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am willing to make <u>important</u> purchase decisions based on the information from this advertisement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am willing to recommend the product that I have seen in this advertisement to my friends or family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please rate this product of this brand displayed in the ad above. Use the scale 1 to 7.

	1	2	3	4	5	6	7	
Unhealthy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Healthy
Bad for my body	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Good for my body
Harmful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Beneficial

PART TWO: Skepticism toward Advertisements

In this section, you will be asked to rate how you perceive general advertisements. Use the scale from **1=Strongly Disagree** to **5=Strongly Agree** to rate each statement.

	Strongly Disagree	1	2	3	4	5	Strongly Agree
We can depend on getting the truth in most advertising.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Advertising's aim is to inform the consumer.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I believe advertising is informative.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Advertising is generally truthful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Advertising is a reliable source of information about the quality and performance of products.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Advertising is truth well told.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In general, advertising presents a true picture of the product being advertised.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel I've been accurately informed after viewing most advertisements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Most advertising provides consumers with essential information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PART THREE: Memorable Messages

In this section, you will be asked to recall conversations with your parents about what you should or shouldn't eat or about what or how to eat. Write down as many examples as you can think of. To the best of your memory, please write the **exact words** from your parent(s). Note whether the messages came from your **mother** or your **father**.

- (1) _____

- (2) _____

- (3) _____

- (4) _____

- (5) _____

- (6) _____

PART FOUR: Family Communication Pattern Scale

In the next section, you will be asked to rate your agreement on the following statements about your family members interacted with one another in your childhood. Use the scale from **1=Strongly Disagree** to **5=Strongly Agree** to rate each statement.

	Strongly Disagree				Strongly Agree
	1	2	3	4	5
When you were a child:					
In our family we often talked about topics like politics and religion where some persons disagree with others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My parents often said something like “Every member of the family should have some say in family decisions.”	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My parents often asked my opinion when the family was talking about something.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My parents encouraged me to challenge their ideas and beliefs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My parents often said something like “You should always look at both sides of an issue.”	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I usually told my parents what I was thinking about things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I could tell my parents almost anything.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1	2	3	4	5
When you were a child:					
In our family we often talked about our feelings and emotions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My parents and I often had long, relaxed conversations about nothing in particular.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I really enjoyed talking with my parents, even when we disagreed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My parents liked to hear my opinions, even when they didn’t	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

agree with me.					
My parents encouraged me to express my feelings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My parents tended to be very open about their emotions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
We often talked as a family about things we had done during the day.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In our family we often talked about our plans and hopes for the future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Disagree				Strongly Agree
When you were a child:	1	2	3	4	5
My parents often said something like “You’ll know better when you grow up.”	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My parents often said something like “My ideas are right and you should not question them.”	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My parents often said something like “A child should not argue with adults.”	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My parents often said something like “There are some things that just shouldn’t be talked about.”	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My parents often said something like “You should give in on arguments rather than risk making people mad.”	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When anything really important was involved, my parents expected me to obey without question.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In our home, my parents usually had the last word.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My parents felt that it was important to be the boss.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My parents sometimes became irritated with my views if they were different from theirs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If my parents didn’t approve of it, they didn’t want to know about	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

it.

When I was at home, I was expected to obey my parents' rules.

☐ ☐ ☐ ☐ ☐

PART FIVE: Demographic Information

What is your gender?

- ☐ Female
- ☐ Male
- ☐ Other
- ☐ Prefer not to respond

In what year were you born? _____

What is your class standing?

- ☐ Freshman
- ☐ Sophomore
- ☐ Junior
- ☐ Senior
- ☐ Master's Student
- ☐ Ph.D. Student
- ☐ Other, please specify _____

Which of the following best describes your ethnic background?

- ☐ White
- ☐ Black or African American
- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Native Hawaiian or Other Pacific Islander

☐ Other, please specify: _____

Which of the following best describes your parents' annual household income?

- ☐ Less than \$10,000
- ☐ \$10,000 to \$14,999
- ☐ \$15,000 to \$24,999
- ☐ \$25,000 to \$49,999
- ☐ \$50,000 to \$99,999
- ☐ \$100,000 to \$149,999
- ☐ \$150,000 to \$199,999
- ☐ \$200,000 or more
- ☐ Don't know
- ☐ Prefer not to respond

REFERENCES

REFERENCES

- Anderson, J., Bresnahan, M. J., & DeAngelis, B. N. (2014). The impact of personal metaphors and memorable interpersonal communication on body satisfaction. *Qualitative Health Research*, 24(6), 727–737.
doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.1177/1049732314529665>
- Atkin, C. (1994). Designing persuasive health messages. *Effective dissemination of clinical health information*, 95-0015.
- Austin, E. W. (1993). Exploring the effects of active parental mediation of television content. *Journal of Broadcasting & Electronic Media*, 37(2), 147–158.
- Bandura, A. (1969). Principles of behavior modification. *New York: Holt, Rinehart and Winston*.
- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1994). Social cognitive theory of mass communication. In J. Bryant, & D. Zillmann (Eds.), *Media effects advances in theory and research* (pp. 61–90). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Baranowski, T. (1982). Family Self-Help: Promoting Changes in Health Behavior. *Journal of Communication*, 32(3), 161–172.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
<http://doi.org/10.1037/0022-3514.51.6.1173>
- Benaquisto, L. (2008). Open Coding. In L. Given, *The SAGE Encyclopedia of Qualitative Research Methods*. 2455 Teller Road, Thousand Oaks California 91320 United States: SAGE Publications, Inc. Retrieved from
<http://knowledge.sagepub.com/view/research/n299.xml>
- Bhaduri, G. (2013). *Trust/distrust, perceived quality, perceived price, and apparel purchase intention*. ProQuest, Ann Arbor MI. Retrieved from
<http://search.proquest.com.proxy2.cl.msu.edu/docview/1520340102/4F9DE939627D4731PQ/10?accountid=12598>
- Blau, P. M. (1964). *Exchange and Power in Social Life*. JOHN WILEY & SONS. Retrieved from
<http://search.proquest.com.proxy1.cl.msu.edu/docview/60546672/C69A0E52FCD947F5PQ/9?accountid=12598>

- Branen, L., & Fletcher, J. (1999). Comparison of College Students' Current Eating Habits and Recollections of Their Childhood Food Practices. *Journal of Nutrition Education*, 31(6), 304–310. doi:10.1016/S0022-3182(99)70483-8
- Brown, J. D., & Witherspoon, E. M. (2002). The mass media and American adolescents' health. *Journal of Adolescent Health*, 31(Suppl6), 153–170.
doi:http://dx.doi.org.proxy2.cl.msu.edu/10.1016/S1054-139X(02)00507-4
- Bruss, M. B., Morris, J. R., Dannison, L. L., Orbe, M. P., Quitugua, J. A., & Palacios, R. T. (2005). Food, Culture, and Family: Exploring the Coordinated Management of Meaning Regarding Childhood Obesity. *Health Communication*, 18(2), 155–175.
doi:10.1207/s15327027hc1802_4
- Buijzen, M., Schuurman, J., & Bomhof, E. (2008). Associations between children's television advertising exposure and their food consumption patterns: A household diary–survey study. *Appetite*, 50(2–3), 231–239. doi:10.1016/j.appet.2007.07.006
- Bush, A. J., Smith, R., & Martin, C. (1999). The influence of consumer socialization variables on attitude toward advertising: A comparison of African-Americans and Caucasians. *Journal of Advertising*, 28(3), 13–24.
- Carlson, L., Grossbart, S., & Tripp, C. (1990). An investigation of mothers' communication orientations and patterns. In M. Goldberg, G. Gorn, & R. Pollay (Eds.), *Advances in consumer research*, Vol. 17 (pp. 804–812). Provo, UT: Association for Consumer Research.
- Carlson, L., Walsh, A., Lacznia, R. N., & Grossbart, S. (1994). Family communication patterns and marketplace motivations, attitudes, and behaviors of children and mothers. *The Journal of Consumer Affairs*, 28(1), 25.
- Cavill, N., & Bauman, A. (2004). Changing the way people think about health-enhancing physical activity: do mass media campaigns have a role? *Journal of Sports Sciences*, 22(8), 771–790. doi:10.1080/02640410410001712467
- CDC. (2014). Childhood obesity facts.
Retrieved from <http://www.cdc.gov/healthyyouth/obesity/facts.htm>
- Chang, H.-H., & Nayga, R. M. (2009). Television Viewing, Fast-Food Consumption, and Children's Obesity. *Contemporary Economic Policy*, 27(3), 293–307.
doi:http://dx.doi.org.proxy2.cl.msu.edu/10.1111/j.1465-7287.2009.00157.x
- Chang, H., & Nayga, R. M. (2010). Childhood Obesity and Unhappiness: The Influence of Soft Drinks and Fast Food Consumption. *Journal of Happiness Studies*, 11(3), 261–275.
doi:http://dx.doi.org.proxy2.cl.msu.edu/10.1007/s10902-009-9139-4
- Chen, P. Y., & Krauss, A. D. (2004). Suppression Effect. In M. Lewis-Beck, A. Bryman, & T. Liao, *Encyclopedia of Social Science Research Methods*. 2455 Teller Road, Thousand

Oaks California 91320 United States: SAGE Publications, Inc. Retrieved from <http://knowledge.sagepub.com/view/socialscience/n989.xml>

Colquitt, J. A., Scott, B. A., & LePine, J. A. (2007). Trust, trustworthiness, and trust propensity: a meta-analytic test of their unique relationships with risk taking and job performance. *Journal of Applied Psychology*, 92(4), 909–927.

doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.1037/0021-9010.92.4.909>

Davis, L. A. (2011). *Beyond “5-a-day”: An examination of memorable messages in a nutrition education program for low-income African Americans* (Ph.D.). Purdue University, United States -- Indiana. Retrieved from <http://search.proquest.com.proxy1.cl.msu.edu/docview/904412287/abstract/72A955BDCE8D40AEPQ/17?accountid=12598>

Davy, S. R., Benes, B. A., & Driskell, J. A. (2006). Sex differences in dieting trends, eating habits, and nutrition beliefs of a group of midwestern college students. *Journal of the American Dietetic Association*, 106(10), 1673–7. doi:10.1016/j.jada.2006.07.017

Fawcett, M., Edwards, A., Twinn, I., & Mathers, J. (2008, October 15). Are the days of using animated characters in ads over? *Marketing*, 24.

Findley, M. J., & Cooper, H. M. (1983). Locus of control and academic achievement: A literature review. *Journal of Personality and Social Psychology*, 44, 419-427.

Fisher, J. E., Till, B. D., & Stanley, S. M. (2010). Signaling trust in print advertisements: An empirical investigation. *Journal of Marketing Communications*, 16(3). Retrieved from <http://search.proquest.com.proxy2.cl.msu.edu/docview/869428879/4DA37B963C6247A3PQ/2?accountid=12598>

Freedman (2009) “Childhood Obesity in the United States: the Magnitude of the Problem,” Retrieved from <http://www.cdc.gov/cdcgrandrounds/pdf/gr-062010.pdf>

Goneau, K. (2004). *Advertising skepticism among adolescents: An extension into the social marketing arena* (M.Sc.). Concordia University (Canada), Canada. Retrieved from <http://search.proquest.com.proxy1.cl.msu.edu/docview/305132807/abstract/BB814DE12D8E4C37PQ/28?accountid=12598>

Growing ad skepticism. (1981, October 19). *The Christian Science Monitor*. Boston, Mass., United States. Retrieved from <http://search.proquest.com.proxy1.cl.msu.edu/docview/1038838399/BB814DE12D8E4C37PQ/25?accountid=12598>

Harris, Jennifer L., John A. Bargh, and Kelly D. Brownell (2009), “Priming Effects of Television Food Advertising on Eating Behavior,” *Health Psychology*, 28(4), 404-413.

- Harrison, K. (2005). Is "Fat Free" Good for Me? A Panel Study of Television Viewing and Children's Nutritional Knowledge and Reasoning. *Health Communication, 17*(2), 117–132. doi:10.1207/s15327027hc1702_1
- Harvard School of Public Health. (2014). Defining Childhood Obesity. Retrieved from Harvard School of Public Health: <http://www.hsph.harvard.edu/obesity-prevention-source/obesity-definition/defining-childhood-obesity/#definitions>
- Hastie, R. (1984). Causes and effects of causal attribution. *Journal of Personality and Social Psychology, 46*(1), 44–56. doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.1037/0022-3514.46.1.44>
- Henderson, J., Coveney, J., Ward, P., & Taylor, A. (2009). Governing childhood obesity: Framing regulation of fast food advertising in the Australian print media. *Social Science & Medicine, 69*(9). Retrieved from <http://search.proquest.com.proxy2.cl.msu.edu/docview/230484222/8E55E967F3554143PQ/3?accountid=12598>
- Hong, I. B., & Cho, H. (2011). The impact of consumer trust on attitudinal loyalty and purchase intentions in B2C e-marketplaces: Intermediary trust vs. seller trust. *International Journal of Information Management, 31*(5), 469–479. doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.1016/j.ijinfomgt.2011.02.001>
- Hornik, R. (2002). *Public Health Communication: Evidence for Behavior Change*. Routledge.
- Johnson, A. L., Orbe, M. P., & Cooke-Jackson, A. (2014). "Let's Talk About Sex": Exploring HBCU Student Memorable Message Narratives. *Howard Journal of Communications, 25*(3), 303–323. doi:10.1080/10646175.2014.925309
- Kee, H. W., & Knox, R. E. (1970). Conceptual and methodological considerations in the study of trust and suspicion. *Journal of Conflict Resolution, 14*(3), 357–366. doi:<http://dx.doi.org.proxy1.cl.msu.edu/10.1177/002200277001400307>
- Khuhro, R. A., Bhutto, N. A., & Sarki, I. H. (2015). Failure of Brand Intoxication with the Mediating Effect of Ad Skepticism. *Sukkur IBA Journal of Management and Business, 2*(1), 86–103.
- Kim, C., Lee, H., & Tomiuk, M. A. (2009). Adolescents' perceptions of family communication patterns and some aspects of their consumer socialization. *Psychology & Marketing, 26*(10), 888–907. doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.1002/mar.20304>
- Kim, H. Y., & Chung, J.-E. (2011). Consumer purchase intention for organic personal care products. *Journal of Consumer Marketing, 28*(1), 40–47. doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.1108/07363761111101930>

- Kim, J. (2015). Communication Effect of Podcast Experience: Focusing on Skepticism and Demographic Factors. *Indian Journal of Science and Technology*, 8(S7), 357. <http://doi.org/10.17485/ijst/2015/v8iS7/69994>
- Knapp, M. L., Stohl, C., & Reardon, K. K. (1981). "Memorable" Messages. *Journal of Communication*, 31(4), 27–41. doi:10.1111/j.1460-2466.1981.tb00448.x
- Lackman, C., & Lanasa, J. M. (1993). Family Decision-Making Theory: An Overview and Assessment. *Psychology and Marketing*, 10(2). Retrieved from <http://search.proquest.com.proxy2.cl.msu.edu/docview/1308076233/citation/FB3BF9FF3C11454EPQ/1?accountid=12598>
- Laljiyani, K. C. (1990). *Persuasion and gender schema: Cognitive mechanisms of attitude change* (Ph.D.). The University of Texas at Dallas, United States -- Texas. Retrieved from <http://search.proquest.com.proxy2.cl.msu.edu/docview/303852977/abstract/469F142867F64EAFPQ/12?accountid=12598>
- Lauckner, C., Smith, S., Kotowski, M., Nazione, S., Stohl, C., Prestin, A., ... Nabi, R. (2012). An Initial Investigation Into Naturally Occurring Loss- and Gain-Framed Memorable Breast Cancer Messages. *Communication Quarterly*, 60(1). Retrieved from <http://search.proquest.com.proxy1.cl.msu.edu/docview/920838313/72A955BDCE8D40AEPQ/20?accountid=12598>
- Lent, M., Hill, T. F., Dollahite, J. S., Wolfe, W. S., & Dickin, K. L. (2012). Healthy children, healthy families: Parents making a difference! A curriculum integrating key nutrition, physical activity, and parenting practices to help prevent childhood obesity. *Journal of Nutrition Education and Behavior*, 44(1), 90–92. doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.1016/j.jneb.2011.02.011>
- Li, F., & Miniard, P. W. (2006). On the Potential for Advertising to Facilitate Trust in the Advertised Brand. *Journal of Advertising*, 35(4), 101–112.
- Lichtenstein, A. H., Appel, L. J., Brands, M., Carnethon, M., Daniels, S., Franch, H. A., Wylie-Rosett, J. (2006). Diet and lifestyle recommendations revision 2006 - A scientific statement from the American Heart Association Nutrition Committee (vol 114, pg 82, 2006). *Circulation*, 114(1), 82-+. doi: 10.1161/circulationaha.106.176158
- Liu, C.-L. "Eunice," Sinkovics, R. R., Pezderka, N., & Haghirian, P. (2012). Determinants of Consumer Perceptions toward Mobile Advertising — A Comparison between Japan and Austria. *Journal of Interactive Marketing*, 26(1), 21–32. doi:10.1016/j.intmar.2011.07.002
- Lorr, M., & McNair, D. (1966). Methods relating to evaluation of therapeutic outcome. In L. Gottschalk & A. Auerbach (Eds.), *Methods of research in psychotherapy*. Englewood Cliffs, NJ: Prentice Hall.

- Mangleburg, T. F., & Bristol, T. (1998). Socialization and adolescents' skepticism toward advertising. *Journal of Advertising*, 27(3), 11–21.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integration model of organizational trust. *Academy of Management. The Academy of Management Review*, 20(3), 709.
- McLeod, J. M., & O'Keefe, G. J. (1972). The socialization perspective and communication behavior. *Current perspectives in mass communication research*, 121-168.
- Miller-Day, M., & Marks, J. D. (2006). Perceptions of Parental Communication Orientation, Perfectionism, and Disordered Eating Behaviors of Sons and Daughters. *Health Communication*, 19(2), 153–163.
doi:http://dx.doi.org.proxy2.cl.msu.edu/10.1207/s15327027hc1902_7
- Millimet, D. L., Tchernis, R., & Husain, M. (2010). School Nutrition Programs and the Incidence of Childhood Obesity. *Journal of Human Resources*, 45(3), 640–654.
- Moore, R. L., & Moschis, G. P. (1978). Family Communication Patterns and Consumer Socialization., 33.
- Morse, K. L., & Driskell, J. A. (2009). Observed sex differences in fast-food consumption and nutrition self-assessments and beliefs of college students. *Nutrition Research (New York, N.Y.)*, 29(3), 173–9. doi:10.1016/j.nutres.2009.02.004
- Moschis, G. P., & Churchill, G. A. (1978). Consumer socialization: A theoretical and empirical analysis. *JMR, Journal of Marketing Research (pre-1986)*, 15(000004), 599.
- Moschis, G. P., & Smith, R. B. (1985). Consumer socialization: origins, trends and directions for future research. *Historical Perspectives in Consumer Research: National and International Perspectives*, 275-281.
- Moschis, G. P. (1985). The Role of Family Communication in Consumer Socialization of Children and Adolescents. *Journal of Consumer Research*, 11(4), 898.
- Okazaki, S., Katsukura, A., & Nishiyama, M. (2007). How mobile advertising works: The role of trust in improving attitudes and recall. *Journal of Advertising Research*, 47(2), 165–178.
doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.2501/S0021849907070195>
- O'Keefe, D. J. (2002). *Persuasion: Theory and Research*. SAGE.
- Obermiller, C., & Spangenberg, E. R. (1998). Development of a Scale to Measure Consumer Skepticism Toward Advertising. *Journal Of Consumer Psychology (Lawrence Erlbaum Associates)*, 7(2), 159-186.
- Obermiller, C., Spangenberg, E., & MacLachlan, D. L. (2005). Ad skepticism the consequences of disbelief. *Journal of Advertising*, 34(3), 7–18.

- Peter, J. P., Olson, J. C., & Grunert, K. G. (1999). *Consumer behavior and marketing strategy* (pp. 329-48). London: McGraw-Hill.
- Puhl, R. M., & Schwartz, M. B. (2003). If you are good you can have a cookie: How memories of childhood food rules link to adult eating behaviors. *Eating Behaviors*, 4(3), 283–93. doi:10.1016/S1471-0153(03)00024-2
- Raj Arora, Charles Stoner, & Alisha Arora. (2006). Using framing and credibility to incorporate exercise and fitness in individuals' lifestyle. *Journal of Consumer Marketing*, 23(4), 199–207. <http://doi.org/10.1108/07363760610674329>
- Reno, J. E., & McNamee, L. G. (2014). Do Sororities Promote Members' Health? A Study of Memorable Messages Regarding Weight and Appearance. *Health Communication*, 0(0), 1–13. doi:10.1080/10410236.2013.863702
- Riesch, S. K., Anderson, L. S., & Krueger, H. A. (2006). Parent-Child Communication Processes: Preventing Children's Health-Risk Behavior. *Journal for Specialists in Pediatric Nursing*, 11(1), 41–56.
- Rimal, R. N., & Flora, J. A. (1998). Bidirectional familial influences in dietary behavior: Test of a model of campaign influences. *Human Communication Research*, 24(4), 610–637. doi:<http://dx.doi.org.proxy1.cl.msu.edu/10.1111/j.1468-2958.1998.tb00433.x>
- Rimer, B., & Glassman, B. (1984). How Do Persuasive Health Messages Work? A Health Education Field Study. *Health Education & Behavior*, 11(3), 313–321. doi:10.1177/109019818401100307
- Ritchie, L. D., & Fitzpatrick, M. A. (1990). Family communication patterns: Measuring intrapersonal perceptions of interpersonal relationships. *Communication Research*, 17(4), 523.
- Ritchie, L. D. (1991). Family communication patterns: An epistemic analysis and conceptual reinterpretation. *Communication Research*, 18(4), 548–565. doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.1177/009365091018004005>
- Ross, W., & LaCroix, J. (1996). Multiple Meanings of Trust in Negotiation Theory and Research: A Literature Review and Integrative Model. *The International Journal of Conflict Management*, 7(4), 314–360.
- Rothman, A. J., Salovey, P., Antone, C., Keough, K., & Martin, C. D. (1993). The influence of message framing on intentions to perform health behaviors. *Journal of Experimental Social Psychology*, 29(5), 408.
- Salkind, N. J., & Rasmussen, K. (2007). *Encyclopedia of Measurement and Statistics*. 2455 Teller Road, Thousand Oaks California 91320 United States of America: Sage

- Publications, Inc. Retrieved from
<http://srmo.sagepub.com/view/encyclopedia-of-measurement-and-statistics/SAGE.xml>
- Signorielli, N., & Lears, M. (1992). Television and children's conceptions of nutrition: Unhealthy messages. *Health Communication*, 4(4), 245–257.
 doi:http://dx.doi.org.proxy2.cl.msu.edu/10.1207/s15327027hc0404_1
- Signorielli, N., & Staples, J. (1997). Television and children's conceptions of nutrition. *Health Communication*, 9(4), 289–301.
 doi:http://dx.doi.org.proxy2.cl.msu.edu/10.1207/s15327027hc0904_1
- Smith, S. W., & Ellis, J. B. (2001). Memorable Messages as Guides to Self-Assessment of Behavior: An Initial Investigation. *Communication Monographs*, 68(2), 154.
- Smith, S. W., Atkin, C., Skubisz, C. M., Nazione, S., & Stohl, C. (2009). The impact of personal and/or close relationship experience on memorable messages about breast cancer and the perceived speech acts of the sender. *Journal of Cancer Education*, 24(2), 129–34.
 doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.1080/08858190902854681>
- Soh, H., Reid, L. N., & King, K. W. (2009). Measuring Trust in Advertising: Development and Validation of the ADTRUST Scale. *Journal of Advertising*, 38(2), 83–103.
- Sothorn, M. S. (2004). Obesity prevention in children: physical activity and nutrition. *Nutrition*, 20(7), 704-708.
- Staub, E. (1972). Effects of persuasion and modeling on delay of gratification. *Developmental Psychology*, 6(1), 166–177. doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.1037/h0032212>
- Strauss, A., & Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Sage Publications, Inc (Thousand Oaks, CA, US). Retrieved from
<http://search.proquest.com.proxy1.cl.msu.edu/docview/617874311/4B7935A812264984PQ/3?accountid=12598>
- Umberson, D. (1987). Family status and health behaviors: Social control as a dimension of social integration. *Journal of health and social behavior*, 306-319.
- Wakefield, M. A., Loken, B., & Hornik, R. C. (2010). Use of mass media campaigns to change health behaviour. *The Lancet*, 376(9748), 1261–1271. doi:10.1016/S0140-6736(10)60809-4
- Ward, S., Wackman, D. B., & Wartella, E. (1977). *How children learn to buy: The development of consumer information-processing skills*. Oxford, England: Sage.
- Watt, T. T., Appel, L., Roberts, K., Flores, B., & Morris, S. (2013). Sugar, stress, and the Supplemental Nutrition Assistance Program: Early childhood obesity risks among a clinic-based sample of low-income Hispanics. *Journal of Community Health: The*

Publication for Health Promotion and Disease Prevention, 38(3), 513–520.
doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.1007/s10900-012-9641-1>

- Whitney, R., & Viswanath, K. (2004). Lessons Learned from Public Health Mass Media Campaigns: Marketing Health in a Crowded Media World. *Annual Review of Public Health*, 25, 419–37.
- Yu, J. (Hyunjae). (2012). Mothers' perceptions of the negative impact on TV food ads on children's food choices. *Appetite*, 59(2), 372–376.
doi:<http://dx.doi.org.proxy2.cl.msu.edu/10.1016/j.appet.2012.05.017>
- Yukl, G., & Tracey, J. B. (1992). Consequences of influence tactics used with subordinates, peers, and the boss. *Journal of Applied Psychology*, 77(4), 525.