

FEAR APPEAL ADVERTISING: THE EFFECT ON MOTHERHOOD AND
ENVIRONMENTAL CONCERN

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FEAR APPEAL ADVERTISING: THE EFFECT ON MOTHERHOOD AND
ENVIRONMENTAL CONCERN

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ABSTRACT

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The purpose of this research is to examine the effectiveness of the fear appeal tactic in advertising to impact attitudes and behavioral intentions regarding environmental responsibility. The theory of planned behavior is used to frame this study, and the results are compared to determine if there is more of an impact on mothers than on non-mothers. The results of the study showed support for the claims that the fear appeal creates anxiety and has an impact on attitudes, that the fear appeal creates anxiety and has an impact on behavioral intentions, and that attitudes have an impact on behavioral intentions. Regarding the difference between groups, mothers did appear to show more of an impact than non-mothers in terms of behavioral intentions, but not with regard to level of anxiety or attitudes.

CHAPTER I

INTRODUCTION

The transition into motherhood is accompanied by the acquisition of many possessions, from diapers to pacifiers to toys. A less tangible possession that is acquired by becoming a mother has to do with life perspective in that many women experience a sense of awakening or transformation upon engaging with their infant (Nelson, 2003). For many women this transformation means overcoming any vestiges of egocentrism remaining from their own childhood in order to care and provide for their child (Nelson, 2003). For some, it comes as a sudden realization that they need to better care for their own health to be able to live and be with their child throughout as much of their life as possible (Nelson, 2003). And for others, this transformation extends even further causing “a feeling of increased responsibility for making the world a better place” (Nelson, 2003). This research is concerned with several questions: do women who become mothers in turn become more concerned about the state of the Earth’s environment; does the realization that future generations will live on after a mother’s passing cause environmental action; and how can professional promoters of environmental causes best market their campaigns toward mothers?

Many studies have been conducted on the consumption habits of mothers, how products are marketed toward mothers, and the influence children have on the Consumption choices of mothers (e.g., Bui, 1999; Davies et al., 2010a; Henry &

Borzekowski, 2011; Isler, Popper, & Ward, 1987; Pugh, 2005; Thompson, 1996). These studies are useful in developing a marketing strategy to increase mothers' awareness of environmental issues, and to effect environmentally-friendly changes in their lifestyle. In order to create long-term changes for society, it is important to study how to reach mothers effectively because they are the teachers and role models for future generations (Carlson, Grossbart, & Walsh, 1990; Grossbart, Sanford, & Walsh, 1991). Mothers, sometimes inadvertently, play the role of consumer-socialization agent and transfer their knowledge, beliefs, and behaviors onto their children (Carlson, Grossbart, & Walsh, 1990). It would logically follow that if mothers become more aware of how their decisions and behaviors impact the environment, then children growing up in that atmosphere would naturally be more conscious of this. There have been few studies conducted on the direct relationship between motherhood and conservationism. Specifically, there have been no studies examining the attitudes and behavioral intentions held by mothers with regard to the plastics industry.

Since 1980, the United States plastics industry has produced a 2.4% annual increase in manufacturing productivity, has developed a presence in every state, and has established itself as the third largest manufacturing industry in the nation (Society of the Plastics Industry, 2012). Plastic is problematic in a variety of ways, from its method of manufacture to its resistance to decomposition (Knoblauch, 2009). The production of plastic requires the usage of an overabundance of irreplaceable fossil fuels, and the rate at which the Earth's non-renewable energy resources are depleting is only increasing (Cherian & Jacob, 2012; Knoblauch, 2009; McDaniel & Rylander, 1993). The chemicals that make up different kinds of plastic break down over time only to be absorbed by

humans and the environment (Knoblauch, 2009). According to the National Wildlife Federation, a reported 40% of the American population is suffering from health problems that are directly related to contaminants in their drinking water (McDaniel & Rylander, 1993). Recent studies have found links between exposure to plastic chemicals and the development of adverse effects such as heart disease, diabetes, and reproductive abnormalities (Knoblauch, 2009). Additionally, plastic debris that is discarded ends up in either a landfill or floating in the oceans where it will remain for years to come (Knoblauch, 2009). Over 150 million tons of trash is discarded into landfills annually, and many landfills are approaching their maximum capacity (McDaniel & Rylander, 1993).

This last point illuminates one of the major challenges society faces currently, which is determining the best practice for disposing of plastic. Between 2000 and 2010, society as a whole manufactured the same amount of plastic as was produced during the entire twentieth century (Knoblauch, 2009). A major contributor to this recent growth is the rise in popularity of bottled water over the past decade. In 2009, Americans consumed almost eight and a half million gallons of bottled water, up from five million gallons in 2001 (Rodwan, 2009). This was the leading number globally with Mexico coming in next at almost seven million gallons, and Spain setting a good example at just over one million gallons (Rodwan, 2009). According to John Rodwan, Jr., Editorial Director of the New York-based Beverage Marketing Corporation, “bottled water is on track to grow considerably faster” than other beverage types in the future (2009). Another large contributor to the plastic problem is the toy industry. According to the Toy Industry Association, in 2009, the total retail sales of toys throughout the world was

\$80.280 billion, with the U.S. ranking in on the top ten markets list at \$21.78 billion (Ferman, 2012).

Whether a marketing campaign is effective or not is dependent on the strategy utilized to frame the campaign's message, and how that frame will impact the attitudes and behaviors of the intended audience. There are many popular strategies available, one of which is the fear appeal meaning that marketers provoke feelings of fear, anxiety, or tension in their audience using the threat of danger as a means of potentially influencing their actions (LaTour & Zahra, 1989; Tanner, Hunt & Eppright, 1991; Witte & Allen, 2000). The fear appeal has been employed in promoting many social causes including anti-smoking ads, ads against drinking and driving, ads raising awareness about AIDS and other STDs, and more (Bennett, 1996; Dillard, Plotnick, Godbold, Freimuth, & Edgar, 1996; Johnson & LaTour, 1991; Keller & Block, 1996; LaTour & Pitts, 1989; Smith & Stutts, 2003; Tanner, Day, & Crask, 1989; Tanner, Hunt, & Eppright, 1991; Terblanche-Smit & Terblanche, 2010). In order for the fear appeal to be an effective marketing strategy the appropriate balance must be found between various elements. Some of these elements include the message type and content, the personality characteristics of the intended audience, the route by which the audience processes the content, the appropriate level of fear arousal, the audience's perceived ability to effect change, and the probability of audience elaboration on the message (Bennett, 1996; Burnett & Wilkes, 1980; Cochrane & Quester, 2005; Hale, Lemieux, & Mongeau, 1995; Henthorne, LaTour, & Natarajan, 1993; Johnson & LaTour, 1991; Keller & Block, 1996; LaTour & Pitts, 1989; LaTour & Zahra, 1989; Lynn, 1974; Potter, LaTour, Braun-LaTour, & Reichert, 2006; Smith & Stutts, 2003; Tanner, Day, & Crask, 1989; Tanner,

Hunt, & Eppright, 1991; Terblanche-Smit & Terblanche, 2010). The fear appeal must also be exercised with caution so the audience does not perceive the message as unethical (Duke, Pickett, Carlson, & Grove, 1993; LaTour, Snipes, & Bliss, 1996; LaTour & Zahra, 1989; Snipes, LaTour, & Bliss, 1989). Other considerations when devising an effective strategy for employing the fear appeal, such as the severity and probability of the conveyed threat, are provided in more detail in the literature review. The purpose of this study is to examine the effectiveness of the fear appeal in advertising to influence the attitudes and behavioral intentions of mothers with regard to environmental concerns, specifically the environmental threat posed by the plastics industry.

While the advertisement utilized in this study employs the fear appeal tactic, because of its environmental nature, it also falls into a holistic concept of marketing coined green marketing, which became popular in the late 1990s and early 2000s (Tiwari, Tripathi, Srivastava, & Yadav, 2011). Green marketing, as defined by Michael Jay Polonsky (2011), is “all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants such that the satisfaction of these needs and wants occurs with minimal detrimental impact on the natural environment” (as cited in Cherian & Jacob, 2012, p. 118). Green marketing is also known as sustainable marketing, environmental marketing, and/or ecological marketing (Cherian & Jacob, 2012; Tiwari et al., 2011). Three types of green marketing exist:

- 1) Advertisements that present a direct relationship between a particular product or service and the state of the environment (Tiwari et al., 2011).
- 2) Advertisements that encourage environmentally friendly choices and behaviors through the use of their product or service (Tiwari et al., 2011)

- 3) Advertisements that promote a corporate image of what it means to live an environmentally friendly life (Tiwari et al., 2011).

The advertisement in this particular study falls into the first category, as it demonstrates how plastic is detrimental to the environment. This green style of marketing has the potential to be effective as consumer awareness and concern about environmental issues continues to grow, and as consumer decisions become increasingly influenced by the level of environmental safety of products and services (Cherian & Jacob, 2012; McDaniel & Rylander, 1993; Tiwari et al., 2011).

CHAPTER II

LITERATURE REVIEW

Mothers, Social Causes, and the Fear Appeal

Much of the past literature on motherhood with any relevance to social issues has to do with the debate over breastfeeding versus formula-feeding of infants, and the impact of corporate marketing of breast milk substitutes on mothers' decisions (Gengler, Mulvey, & Oglethorpe, 1999; Gore et al., 1998; Hughes, 1999; Kaplan & Graff, 2008; Kimura, 2008; Moszynski, 2007; Rosenberg, Eastham, Kasehagen, & Sandoval, 2008; Sobel et al., 2011; Wolf, 2007). Other research on motherhood and social concerns focuses on topics such as dental health (Schou, 1987), the importance of Folic Acid for fetal development during pregnancy (Prue, Flores, Panissidi, & Lira, 2008), lead poisoning prevention (Jordan, Lee, Olkon, & Pirie, 2007), sexually-transmitted diseases (STDs; Shafer, Cates, Diehl, & Hartmann, 2011; Wilbraham, 2008), drunk driving (Shanahan & Hopkins, 2007), cigarette smoking (Tillgren, Eriksson, Guldbbrandsson, & Spiik, 2000), nutrition and physical activity (Dharod, Drewette-Card, & Crawford, 2011), and children's television consumption (Walsh, Laczniak, & Carlson, 1998). One study examined gender and parenthood as determinants of willingness to pay for environmental protection of wildlife and salmon populations, and found that neither variable emerged as a significant factor (Teal & Loomis, 2000).

The fear appeal is used frequently for promoting social issue campaigns, and has previously been used to raise awareness about concerns such as STDs (Bennett, 1996; Dillard et al., 1996; Johnson & LaTour, 1991; LaTour & Pitts, 1989; Tanner, Day, & Crask, 1989; Tanner, Hunt, & Eppright, 1991; Terblanche-Smit & Terblanche, 2010), health insurance (Burnett & Wilkes, 1980), and cigarette smoking (Keller & Block, 1996; Smith & Stutts, 2003). LaTour and Pitts (1989) found that evoking a fear response that is strong, yet not overly strong so that it causes “fear denial,” is the most effective way of promoting condom use as a measure of AIDS prevention. However, the fear appeal is complex with multiple variables, and marketers should devise a strategy based on not only the level of fear arousal in the message, but also on the demographics and psychographics of the audience, their pre-existing attitudes toward advertising, and their prior knowledge of the issue being covered (Bennett, 1996; Burnett & Wilkes, 1980; Hale, Lemieux, & Mongeau, 1995; Terblanche-Smit & Terblanche, 2010).

A model for employing fear appeal advertising comes from Protection Motivation theory which recommends locating the appropriate balance between four intertwined elements: the severity of the threat, the probability that the threat will occur, the audience’s perceived ability to effectively cope with the threat, and the audience’s self-efficacy (Tanner, Day, & Crask, 1989; Tanner, Hunt, & Eppright, 1991). Another dimension to the fear appeal is the debate over the ethicality of this strategy (Duke et al., 1993). Many critics of the fear appeal claim that it could be perceived as unethical because of the potential to cause psychological harm or distress to the receiving audience (LaTour, Snipes, & Bliss, 1996). But proponents of the fear appeal argue that unethical perceptions are negated if the advertised product is offered as a solution to the threat

being demonstrated, and if the severity of the threat shown is high enough to provoke action without causing tension in the audience (LaTour & Zahra, 1989; Snipes, LaTour, & Bliss, 1999).

Mothers' Consumption to Ease Transition

Of the literature available on the topic of mothers' consumption, a significant portion focuses on the transitional period from pre- to post-partum phases, and examines the premise that women use consumption to ease their way through major role changes (Davies et al., 2010a; Davies et al., 2010b; Carrigan & Szmigin, 2004; Sevin & Ladwein, 2007). Qualitative studies reviewing past literature on consumer behavior have found that women in the midst of the motherhood transition consume as a way to cope with feeling uncertain about their new role, to feel more prepared for both the transitional period and the new role, to break down the barrier between the old and new role, and to attain their ideal self-image (Davies et al., 2010a; Sevin & Ladwein, 2007). While this is true in many cases, after interviewing twenty-five new or expectant mothers across four countries, Davies et al. (2010a) found that consumption during this period can also produce just as much stress and anxiety as it is believed to reduce. First time mothers, lacking experience and/or education, may be uncertain about what products or brands to buy, they may be hesitant to make purchases in the motherhood realm because they are not ready to fully accept their new role (or let go of their old role), fear may be aroused by the responsibility of caring for another person, and anxiety may be aroused when the resources of time, money, and/or energy are limited (Davies et al., 2010a).

New mothers become vulnerable consumers because they feel they are lacking control, and the "interplay of medical, legal, political, sociocultural, and market

influences... amplify powerful myths of the ‘good mother’” stirring feelings of inadequacy in their new role (Davies et al, 2010b). An important point to consider when marketing products toward new mothers is the ambivalence that is likely being experienced in deciding the appropriate course of action to take (Davies et al., 2010a; Davies et al., 2010b). While this delicate psychological state should be taken into account, it must also be remembered that purchasing maternity clothes and items to care for the baby are a requirement, not a choice, for new or expecting mothers, and the limited amount of time allotted to make these purchases becomes a factor in decision making as well (Carrigan & Szmigin, 2004). Hogg, Curasi, and Maclaran (2004), through in-depth interviews with older mothers, found that consumption plays a critical role in a later-life mothering transition as well, when the children become adults. In learning how to cope with empty nest syndrome, mothers who previously achieved a sense of fulfillment by toiling over child-care related tasks fill this void by purchasing things for their children instead (Hogg, Curasi, & Maclaran, 2004).

A theme that arises in much of the literature on mothers’ consumerism is the use of consumption as a means of alleviating negative emotions such as stress, anxiety, inadequacy, and guilt (e.g., Bui, 1999; Davies et al., 2010a; Davies et al., 2010b; Hogg, Curasi, & Maclaran, 2004; Pugh, 2005; Thompson, 1996). Working mothers who fill multiple roles (wife, mother, professional, etc.), and therefore who have less time to devote to each role, tend to view consumption for the family as an extension of maternal care (Bui, 1999; Pugh, 2005; Thompson, 1996). Advertisers profit on this by marketing products in such a way as to make mothers believe that by purchasing their product they

are fully meeting their child's needs, while simultaneously allowing them to spend less time actively engaging with the child (Pugh, 2005).

Targeting Mothers through Children

Mothers tend to take their children, especially younger children and often out of necessity, along with them on trips to the grocery store, and advertisers are capitalizing on this co-shopping habit (Carlson, Grossbart, & Walsh, 1990; Grossbart, Carlson, & Walsh, 1991; Isler, Popper, & Ward, 1987). Marketers have developed ways to make their products appealing to children, such as the packaging of the product, utilizing television characters, and aiming television commercials at children causing them to repeatedly ask, or “nag,” their mothers to buy these products (Burr & Burr, 1977; Cosmas & Yannopoulos, 1981; Galst & White, 1976; Henry & Borzekowski, 2011). Isler, Popper, and Ward (1987) had 250 families keep a four-week long log of all purchase requests made by their children, and whether or not parents submitted to the requests, and found that almost half of all requests made were fulfilled without question. The products most frequently requested by children at the supermarket are snack foods (presweetened cereals at the top of this list), candy, and toys, which are also the products most commonly advertised toward children on television (Berey & Pollay, 1968; Galst & White, 1976; Isler, Popper, & Ward, 1987).

CHAPTER III

THEORETICAL FRAMEWORK

This study utilizes the theory of planned behavior (TpB; Ajzen 1991, 2005) as a basis for developing experimental procedures and for evaluating the findings. TpB is the result of many years of collaboration between Martin Fishbein and Icek Ajzen, beginning with Fishbein's original work, summation theory of attitude, which was renamed the expectancy-value model (1975) later in its development (Ajzen, 2012). The expectancy-value model, coupled with Dulany's theory of propositional control (1968), gave rise to the theory of reasoned action (Ajzen and Fishbein, 1980) which examines the link between attitudes and behaviors that result from voluntary choices (Ajzen, 2010). This theory was then expanded in order to evaluate behaviors over which less control can be exerted, and the resultant expanded theory is TpB (Ajzen, 2012).

According to TpB, the intention to perform a behavior is developed based on three constructs: attitudes toward the behavior, subjective norms about the behavior, and perceived control over the behavior (Ajzen, 2012; Kalafatis, Pollard, East, & Tsogas, 1999; Kim & Han, 2010). Attitudes (behavioral beliefs) toward a certain behavior are determined by evaluating all of the possible consequences of enacting the behavior and whether or not the outcome of those consequences is desirable (Ajzen, 2012; Kim & Han, 2010). An important factor that Fishbein and Ajzen (1980) point out regarding the evaluation of outcomes is saliency; the idea of a particular outcome occurring must come

to mind easily in order to affect behavior (Kalafatis et al., 1999). Subjective norms (normative beliefs) are a person's beliefs about what others define as a socially acceptable behavior, and the pressure that person feels to engage or disengage in that behavior (Ajzen, 2012; Kalafatis et al. 1999; Kim & Han, 2010). A person's conformity to a subjective norm depends on whether or not they believe that others hold that particular normative belief, and the level of motivation they have to comply with others normative beliefs (Kalafatis et al., 1999; Kim & Han, 2010). The pressure applied to a person to behave in a certain way is weighted more heavily when it comes from sources that are considered to be a significant, or salient, part of their life (Kalafatis et al., 1999).

Perceived behavioral control (control beliefs) is a person's measure of their ability to perform a certain behavior (Ajzen, 2012; Kim & Han, 2010). It plays a vital role in the formation of intention because it has the ability to outweigh both attitudes and subjective norms (Kalafatis et al., 1999). Perceived behavioral control is based on a person's access to the resources necessary to perform a behavior, and the power, or impact, these resources will have in eliciting the behavior (Kalafatis et al., 1999; Kim & Han, 2010). If a person does not have access to adequate resources, the probability of forming behavioral intentions is low, even if their attitudes and subjective norms are congruent with the behavior (Kalafatis et al., 1999).

CHAPTER IV

HYPOTHESES

This study examines the following hypotheses:

H1: A fear appeal advertisement will create anxiety and have an impact on attitudes toward environmental responsibility.

H2: A fear appeal advertisement will create anxiety and have an impact on intentions to behave in environmentally responsible ways.

H3: Attitudes toward environmentalism have an effect on intentions to behave in environmentally responsible ways.

H4: The impact of a fear appeal advertisement will be greater among mothers than non-mothers.

CHAPTER V

METHODOLOGY

Technique

The technique for this study utilized a one-ad quasi-experimental design. Participants first completed a pre-survey, and were instructed not to look at the following pages of the packet until completion of the pre-survey had occurred. Next the participants were exposed to a simulated print advertisement employing the fear appeal tactic, with the message conveying the need for environmentally responsible actions. The participants were then asked to complete a post-survey to report their subjective experience of the advertisement. The data were collected via a paper-and-pencil, self-report method as opposed to utilizing physiological testing for various reasons. For one, there is no readily available lab or center for conducting physiological measurements for this study. There were time constraints limiting the extent of what could be accomplished during this study. The print medium of the advertisement does not lend itself easily to physiological testing as the reaction time is quick as opposed to viewing a different medium, such as a broadcast advertisement that spans over a few minutes to gauge changes in heart rate, galvanic skin response, etc. Additionally, the equipment for taking physiological measurements can be intrusive and intimidating to some participants, and may impact their scores (LaTour & Pitts, 1989). Along this same vein,

the lab environment required for such testing can also affect participants, whereas the self-report method can be conducted in a more natural environment.

Instrument

The pre and post-surveys consisted of questions adapted from the Environmentally Responsible Consumers: ECOSCALE created by Stone, Barnes, and Montgomery in 1995 (Bearden, Netemeyer, & Haws, 2011). The authors of this scale describe the environmentally responsible consumer as:

A person [who] expresses an intention to take action directed toward remediation of environmental problems, acting not as an individual consumer with his/her own economic interests, but through a citizen consumer concept of societal-environmental well-being. Further, this action will be characterized by awareness of environmental problems, knowledge of remedial alternatives best suited for alleviation of the problem, skill in pursuing his or her own chosen action, and possession of a genuine desire to act after having weighed his/her own locus of control and determining that these actions can be meaningful in alleviation of the problem. (Stone, Barnes, & Montgomery, 1995, p. 601)

The ECOSCALE examines five dimensions of environmentally responsible consumerism: (1) the opinions and beliefs dimension, (2) the awareness dimension, (3) the willingness to act dimension, (4) the attitude dimension, (5) and the knowledge dimension (Bearden, Netemeyer, & Haws, 2011).

The pre-survey consisted of nine items total (see Appendix A). Three items assessed the extent of the participants' knowledge and awareness about environmental responsibility, three items examined their normative beliefs about environmental

responsibility based on the ideals held by members of their social network, and three items gaged their perceived ability to perform environmentally responsible behaviors. Referring back to TpB, this pre-survey examines two of the three constructs posited by Ajzen in developing behavioral intentions: normative beliefs (or subjective norms) and perceived behavioral control (Ajzen, 2012; Kalafatis, Pollard, East, & Tsogas, 1999; Kim & Han, 2010). All items on the pre-survey were scored on two variations of a 5-point Likert scale ranging from either *strongly disagree* to *strongly agree*, or from *never* to *always*.

The post-survey was significantly longer than the pre-survey, consisting of a total of 63 items (see Appendix C). The first portion was comprised of 34 items assessing the emotions the exposure to the print advertisement evoked in the participants. The next four items were used to measure the participants' perception of the threat conveyed in the advertisement, and their level of reactionary concern, anxiety, etc. Seven items determined Ajzen's third construct in TpB, the participants' attitudes (or behavioral beliefs) toward environmentally responsible behaviors (Ajzen, 2012; Kalafatis, Pollard, East, & Tsogas, 1999; Kim & Han, 2010), and the next eleven items examined their behavioral intentions. The post-survey concluded with seven items collecting demographic information on the participants. All items on the post-survey were scored on three variations of a 5-point Likert scale ranging from either *strongly disagree* to *strongly agree*, from *not at all* to *extremely*, or from *never* to *always*.

Experiment Treatment

This quasi experiment utilized a simulated advertisement as the treatment. The process for the selection of the image and the message displayed in the advertisement is described in the next section.

Treatment testing

Prior to creating the ad, two different images, and three different messages were tested independently of one another to confirm that each element was employing the desired fear appeal. The two images tested were:



The first image of the boy on the beach received 80% interjudge reliability, while the second image of the marine bird received 100% interjudge reliability for use of the fear appeal tactic.

The messages tested were:

- 1) PLASTIC: Make a lasting impression. REDUCE, REUSE, RECYCLE
- 2) PLASTIC: Contributing to heart disease, diabetes, and birth defects around the globe. REDUCE, REUSE, RECYCLE
- 3) THE GREAT PACIFIC GARBAGE PATCH: Where plastic outnumbered marine life 6 to 1. Imagine how much plastic marine life ingest = Imagine

how much plastic YOU ingest eating seafood. Who wants to go fishing?

REDUCE, REUSE, RECYCLE

The first message received 40% interjudge reliability, the second message received 90% interjudge reliability, and the third message received 100% interjudge reliability for use of the fear appeal tactic. The image of the marine bird and the third message, which each received 100% interjudge reliability, were then combined to create the advertisement. Once combined, the ad as a whole was tested for interjudge reliability, and received 80% verification of the fear appeal tactic.

The fear appeal advertisement that the participants viewed was a full page (8.5" x 11"), landscape, full color print advertisement (see Figures 1 and 2). The print medium was selected for various reasons, not the least of which was the low cost of production. It was decided that no physiological testing would be involved in the study, so there was no need for a more complex medium to be selected. It also became necessary, in order to collect a convenience sample of mothers, for the survey to be easily distributed; therefore, circumstances necessitated a print advertisement.

Sample

A convenience sample of 140 participants was collected for this study. Of the 140 surveys collected, 28 were eliminated from the data analysis process due to errors such as incomplete responses or multiple responses to an individual item, which rendered them unusable. After elimination of the surveys with errors, the remainder of the sample totaled 112 participants. The minimum sample size goal was at least 100 participants, 50 with children and 50 without children; however, the desired sample size would have been at least 200 participants. The reliability of the results of the study would increase as the

sample size increases. So, while the minimum requirement was met, a larger sample size would have been preferred to ensure accuracy and reliability of the statistically computed data. Of the 112 total participants, 61 reported not having children, while the other 51 reported having children. The portion of the sample without children was students at Texas State University, and the data were collected in the classroom. Surveys were distributed in three different classes, two of which were research methods courses, one at the graduate level and one at the undergraduate level, and one that was an undergraduate level advertising course.

The portion of the sample with children was collected using a snowball sampling technique in two different venues. At one venue, data were collected from healthcare employees at a nearby hospital. Surveys were randomly distributed through the pharmacy department of the hospital, and completed voluntarily by willing participants. At the other venue, data were collected from the parents of school-aged children at a nearby elementary school. The principal of this elementary school was intricately involved in the data collection process, and was very helpful and supportive of the purpose of this research. Per his suggestion, surveys were distributed during a pre-arranged meeting for the school that many parents had previously agreed to attend. Prior to completing the survey, the parents were provided with a letter of disclosure explaining the contents of the survey packet, and a vague description of what the survey was examining in order to inform them about the task being asked of them, while at the same time not causing bias in their responses (see Appendix E). All participants were made aware that their participation in the study was completely voluntary, and that there were no obligations and no repercussions if they chose not to participate. After completion of

the survey packet, participants were then debriefed in detail as to the exact purpose of the research.

The contents of the survey packet, including the disclosure letter, the advertisement, and the pre and post-surveys, were created in both English and Spanish versions. (For Spanish versions of the materials, refer to Figure 2 and Appendices C, E, and G.) It was known in advance that a portion of the sample population would be primarily Spanish-speaking. The principal of the elementary school provided this information during preliminary discussions about preparing for the project. Therefore, both versions of the packet were provided at the meeting at this school, and although the majority of the data were collected in English, there were a small number of surveys completed in Spanish. Because all of the responses were recorded as numerical data via Likert scales, the language of the survey was not a factor in interpreting the data.

Demographic information was collected in the last section of the post-survey the participants completed. Detail on the characteristics of the sample is provided here, and is important as these data are later used to interpret the results reported. While this study focused particularly on gender and offspring, the results were also reviewed for trends within other demographic arenas. Of the 112 total participants, 24 (21.4%) were male, while 88 (78.6%) were female. A set of cross-tabulations was run to determine that there were 44 female participants with children, 44 female participants without children, 7 male participants with children, and 17 male participants without children. In terms of ethnicity, there were 66 (58.9%) Caucasian participants, 38 (33.9%) Hispanic/Latino participants, and 8 (7.2%) participants in the African American, Asian, and other classifications combined. Another set of cross-tabulations was run to conclude that there

were 52 female Caucasian participants, 14 male Caucasian participants, 31 female Latino participants, and 7 male Latino participants. The breakdown of all demographic characteristics is shown in Table 1.

CHAPTER VI

DATA ANALYSIS

Instrument Validation

Statistical analyses were calculated in SPSS software to validate the reliability of each section of the instrument to determine whether or not each scale was actually measuring what it was supposed to be measuring. A factor analysis and reliability analysis were run on the items in each section of the survey to determine the total variance explained and the Cronbach's Alpha, or internal consistency.

The Pre-Survey

The first section of the pre-survey was a scale of three items measuring respondents' knowledge and awareness of the existence of environmental concerns. In order to obtain acceptable reliability for this scale, the second item was eliminated, and only the first and third items were used. A reliability analysis of these items calculated a Cronbach's Alpha of 0.516 for this scale, and a factor analysis determined that it accounted for 68% of the total variance explained. The requirement for exploratory research, such as this, is an internal consistency of 0.50 or higher, which this scale meets; however, the standard for most professional research for reliability is 0.70 or higher. So, while this scale can be validated for exploratory research, it would be preferable for the Cronbach's Alpha to be higher. The next three items on the instrument were used to measure participants' normative beliefs regarding environmental responsibility, in order to relate the results

back to the theory of planned behavior. The Cronbach's Alpha for this scale was 0.86, and the total variance explained was by the scale was 78%. The last three items of the pre-survey were intended to determine respondents' perceived behavioral control, or their perceived ability to perform environmentally responsible behaviors, the purpose of which is also to relate the results back to TpB. There were significant problems with the reliability of this scale. The second item was eliminated, but even with only the first and third items being computed the scale was still below the acceptable limit for internal consistency. The Cronbach's Alpha was 0.38, and the total variance explained was 62%. This scale would need to be altered for future experiments. See Appendix A for the full pre-survey. Refer to Table 2 for a visual aid.

The Post-Survey

The first scale of the post-survey consisted of twenty-two items that measured the negative emotions evoked by the advertisement. The Cronbach's Alpha for this scale was 0.95, and in running a factor analysis on these items, it was calculated that they accounted for 70% of the total variance explained. The next twelve items measured the positive emotions evoked by the advertisement. In terms of reliability, the Cronbach's Alpha for this scale was 0.86, and the total variance explained computed in a factor analysis was 56%. The next four items in the survey examined whether or not the advertisement created an experience of anxiety within the viewer, which is purported by both H1 and H2, and, therefore, highly important to measure reliably. The Cronbach's Alpha for this scale was computed to be 0.90, and accounted for 77% of the total variance explained.

The next section of the post-survey consisted of seven items intended to examine the participants' attitudes toward environmental responsibility. Prior to calculating the data for this section, the Likert scale for items 5 and 6 had to be transformed to measure in reverse order, as the statements were posed in a positive manner, while the other five statements in the scale were posed in a negative manner. By transforming these two items, the accuracy of the data computed can be ensured. H1 proposes that viewers of this fear appeal advertisement will experience anxiety, which will in turn influence the attitudes to which they subscribe. Unfortunately for this case, the reliability of the scale used to measure attitudes was not as high as would be preferred. The Cronbach's Alpha for these seven items was 0.68, and the total variance explained was 58%. This is not to say that this scale is completely unreliable. As mentioned for the pre-survey, the requirement for this type of exploratory research is an internal consistency of 0.50 or higher, which this scale meets and even surpasses. However, this scale is just shy of the 0.70 reliability standard for most professional research. In order to analyze the data as reliably as possible, items that were providing inconsistent results will be eliminated from this scale, and only those items that provided consistent responses will be included for computing the results.

Following this scale were eleven items intended to measure the behavioral intentions held by the participants after their exposure to the advertisement. H2 hypothesized that viewing the advertisement would cause the participants to experience anxiety, and, therefore, create or reinforce the intention to engage in environmentally responsible behaviors. This scale, as those preceding it, was validated using both a reliability analysis and factor analysis. The Cronbach's Alpha for these eleven items was 0.83, and

they accounted for 64% of the total variance explained. Hence, all of the scales on the post-survey were validated for acceptable internal consistency and reliability, with the exception of the attitude scale which only met the requirement for this type of exploratory research. Refer to Table 2 for a visual aid.

CHAPTER VII

HYPOTHESIS TESTING

H1: A fear appeal advertisement will create anxiety and have an impact on attitudes toward environmental responsibility.

H1 was found to be supported by running a linear regression analysis in SPSS to examine the correlation between anxiety and attitudes (see Table 3). A factor was created for measuring anxiety by combining four line items from the instrument: “How threatened did the ad make you feel?” through “How anxious did the ad make you feel?” (see Appendix A for all four items). The Cronbach’s Alpha for these four items was 0.90, showing high internal consistency. In conducting a factor analysis during the scale validation process, it was determined that the items grouped on the instrument to measure attitudes were, in fact, not all measuring the same construct. Therefore, a single item from the attitude scale was selected for the regression analysis. The item with the highest reliability from that scale was line item 5: “My involvement in environmental activities today will help save the environment for future generations.” With anxiety as the independent variable, and attitudes as the dependent variable, the results of the analysis showed a positive correlation between the variables with a Beta coefficient of 0.216, and a significance of 0.022. The R square was lower than preferable at 0.047.

H2: A fear appeal advertisement will create anxiety and have an impact on intentions to behave in environmentally responsible ways.

The results of a linear regression analysis of H2 provided significant support of this hypothesis (see Table 4). The factor created in SPSS for anxiety, as described above for H1, was utilized in this correlation as the independent variable. Additionally, a factor was created for measuring the dependent variable, behavioral intentions, by combining lines items 1 through 11 of the behavioral intentions scale on the instrument beginning with, “If offered, I would attend environmental/conservation group meetings.”, and ending with, “I would consider owning a reusable canteen to avoid using plastic bottles.” (see Appendix A for the full scale). The regression analysis demonstrated a positive correlation between these two variables, with a Beta coefficient of 0.449, and a statistical significance of 0.000. The R square value for the analysis was 0.201.

H3: Attitudes toward environmentalism have an effect on intentions to behave in environmentally responsible ways.

To test H3, the single line item for measuring attitudes selected in analyzing H1 was utilized as the independent variable, and the factor created for measuring behavioral intentions in analyzing H2 was the dependent variable. In running a linear regression analysis, H3 was supported with a statistical significance of 0.001, a Beta coefficient of 0.321, and an R square value of 0.103 (see Table 5).

H4: The impact of a fear appeal advertisement will be greater among mothers than non-mothers.

To quantify the data in order to compare between the group of mothers and the group of non-mothers, a One-way Analysis of Variance (ANOVA) using the Bonferroni

for post hoc multiple comparisons selection was run (see Table 6). The results were computed using a single item from each of the three scales, as opposed to using the factors created for anxiety and behavioral intentions. The single item used for anxiety was: “How anxious did the ad make you feel?” The single item used for attitudes was consistent with the item used throughout the computation of results which was: “My involvement in environmental activities today will help save the environment for future generations.” The single item used for behavioral intentions was: “If offered, I would participate in a community recycling program.” The statistical significance for the difference between mothers and non-mothers in terms of anxiety was 0.492, in terms of attitudes was 0.104, and in terms of behavioral intentions was 0.034.

CHAPTER VIII

RESULTS

H1: A fear appeal advertisement will create anxiety and have an impact on attitudes toward environmental responsibility.

As previously stated, the results of this study supported H1 showing a statistically significant positive correlation between the experience of anxiety and the formation or reinforcement of attitudes toward environmental responsibility. The data demonstrated that through use of the fear appeal tactic, as the level of anxiety increased, the stronger the attitudes toward environmentalism became. However, the value of the R square in this equation, 0.047, was relatively low which suggests that anxiety may not be the only predictor effecting attitudes.

H2: A fear appeal advertisement will create anxiety and have an impact on intentions to behave in environmentally responsible ways.

H2 was strongly supported by the results of this study. The significance of this hypothesis from the regression analysis was 0.000, which is to say that, statistically speaking, there was no doubt that respondents' behavioral intentions were directly impacted by the anxiety they experienced during their exposure to the fear appeal advertisement. In addition, the power of prediction (R square) between anxiety and behavioral intentions was computed to be 20%, which suggests that anxiety is an accurate predictor in the formation or reinforcement of behavioral intentions.

H3: Attitudes toward environmentalism have an effect on intentions to behave in environmentally responsible ways.

The numerical results for H3 reported in the previous section demonstrate the relationship between the attitudes created or reinforced within the participants, and the behavioral intentions created or reinforced within them. The statistics show that the power of a participant's attitudes to predict the formation of intentions to behave in an environmentally responsible manner is 10%, and there was almost no statistical doubt as to the accuracy of this claim. Therefore, H3 was supported.

H4: The impact of a fear appeal advertisement will be greater among mothers than non-mothers.

The ANOVA results for the difference in the level of anxiety experienced from the fear appeal treatment between the mothers and the non-mothers in this study was not statistically significant. It was also determined that there was no significant difference between these two groups in terms of the impact the fear appeal treatment had on the attitudes to which they subscribe regarding environmentalism. However, a significant difference was found between the two groups with regard to their intentions to behave in environmentally responsible ways. In looking more closely at the single item used to quantify this construct ("If offered, I would participate in a community recycling program."), 37 mothers responded positively, 4 were neutral, and 3 responded negatively, while 29 non-mothers responded positively, 12 were neutral, and 3 responded negatively. So, while H4 was not supported in terms of anxiety and attitudes, it was supported in that mothers did demonstrate more of an impact in their intentions to behave with environmental responsibility than did non-mothers.

CHAPTER IX

DISCUSSION AND MANAGERIAL IMPLICATIONS

While it was shown that H1 was supported in this study, it was also determined by the low power of prediction (R square) computed, that anxiety may not be the only variable predicting respondents' attitudes. According to traditional response hierarchy models, individuals pass through three stages before making an ultimate determination on how to perceive or respond to an outside stimulus (Belch & Belch, 2007). The first of these stages is the cognitive stage representing an individual's overall knowledge and awareness of basic information and attributes of a particular stimulus, be it a product, a brand, an advertisement, etc. (Belch & Belch, 2007). The second stage is the affective stage referring to the individual's personal feelings toward that stimulus (Belch & Belch, 2007). The third stage of this process is the conative stage, which is to say the behavioral stage, during which the individual takes action (Belch & Belch, 2007). The focus of this study was primarily on the affective stage, or the participants' feelings toward the fear appeal advertisement. Therefore, variables occurring during the cognitive stage could have acted as predictors affecting the attitudes of the participants, but this study did not compute results based on those variables.

Referring back to the theory of planned behavior, it is posited that behavioral intentions are formed through the three constructs of attitudes, normative beliefs, and perceived behavioral control. As mentioned in the previous section, this study found in

H3 that attitudes did in fact have a statistically significant influence on participants' formation of behavioral intentions, and demonstrated a 10% power to predict this. In order to examine the other two constructs of TpB, additional regression correlations were run in SPSS. The statistical computations for normative beliefs showed that they have a 32% power to predict the formation of behavioral intentions, and there was almost no statistical doubt of this claim (see Table 7). For perceived behavioral control, it was calculated that this has a 29% power to predict the formation of behavioral intentions, and this also generated almost no statistical doubt (see Table 8). So these results do support the general principle of TpB with regard to all three constructs. Keep in mind, however, that the scale utilized in this study to measure perceived behavioral control was found to be unreliable.

According to TpB, perceived behavioral control should be the most powerful construct of the three, outweighing both attitudes and normative beliefs when it comes to predicting an individual's conviction or dismissal of a behavior (Kalafatis et al., 1999). The results shown here do not support that, as they show that normative beliefs are slightly more influential. Again, because of the inconsistency found within the scale for perceived behavioral control, a reliable conclusion cannot be drawn as to whether or not this is actually the case. This is a major flaw in this study, and would need to be retested and examined more thoroughly.

CHAPTER X

LIMITATIONS

In the beginning phases of planning this research, the initial design discussed for the experiment included a control group and an experimental group. Both groups would have viewed an advertisement promoting the same cause, that being environmental responsibility, but the control group's advertisement would have been neutral, while the experimental group's advertisement would convey the fear appeal tactic. This design would have allowed for a comparison between groups to determine if the fear appeal advertisement had more or less impact on the viewers than the neutral advertisement, which would provide a more in depth look into the fear appeal tactic independent from the motherhood element of the study. However, since the focus of the study was to measure the difference in the level of impact between the group of mothers and the group of non-mothers, and not focused on measuring the difference between a fear appeal and a neutral advertisement, it was determined that the one-ad quasi-experimental design would suffice. So, although one advertisement was enough to conduct this study, it is still noteworthy as a limitation that there was no control group for comparison purposes. A major factor in the ultimate design decision was the amount of time allotted to prepare and complete this research. There was not sufficient time to create and validate a second advertisement for use in a control group. If the initial design had been followed through with, it would have required significantly more participants as well, not only for data

collection, but also for determining interjudge reliability. This point leads into a second limitation of the study, that being the sample size. Ideally for this study, a sample size of approximately 200 participants would have been collected. As previously stated, the actual sample size used was 112. A larger sample size would have increased the reliability of the results computed, and would theoretically make the data more representative of the general population. Again, the major obstacle in the way of gathering a larger sample size was the lack of time to do so. Also, one-fifth of the total surveys collected had to be discarded due to errors in participant responses. The aim for this study was to gather data from at least 100 participants, which was surpassed, yet a larger sample size would still have been beneficial.

Another limitation of this research was the data collection method. The paper-and-pencil self-report method was sufficient for this study; however, it is not as scientifically accurate as other methods. The self-report method of data collection is inherently subjective, and is, therefore, able to be influenced by a variety of both internal and external factors that could skew or bias a participant's responses. It is possible that participants may misunderstand or misinterpret the question(s) being asked of them, and may unintentionally report false answers because of this. Based on various physiological and psychological processes within the participant such as hunger, sleepiness, emotional state, mental state, etc., responses may differ on any given day. As mentioned previously, utilizing physiological testing was considered, but ultimately ruled out as a possible means of collecting data. While it would have been more objective and scientifically precise than self-report data, it would still be subject to the multiple

physiological and psychological processes occurring within a participant's body, and would, therefore, share a limitation with the method applied in this study.

Additionally, it would have been highly desirable to conduct a pilot test on the instrument prior to collecting the actual data to ensure internal consistency and reliability. As previously stated, the reliability of several scales was not as high as preferred. Most notably, the scale measuring perceived behavioral control did not meet the standard for internal consistency required for exploratory research, and therefore cannot be said to have computed reliable results. Also, the scales measuring both knowledge and/or awareness of environmental issues, and attitudes toward environmental issues met the reliability requirement for exploratory research, but not for professional research. Had a pilot test been run, the inconsistency in these scales could have been discovered in time to adjust them and collect more reliable data.

The medium utilized in this study is also a limitation in itself. In this highly technological era, it may be beneficial to test a more complex medium such as a broadcast advertisement. This would also allow for measurement of physiological response over time throughout the advertisement, as opposed to an immediate and limited reaction to the print advertisement. The results of this study cannot be generalized across all media, as only the print medium was tested. Testing multiple types of media may provide a more cohesive understanding of how to effectively employ the fear appeal tactic.

CHAPTER XI

DIRECTIONS FOR FUTURE RESEARCH

Going forward from here, it would be interesting to conduct a study examining this same topic, but that compares an experimental group with a control group. The experimental group would receive the fear appeal treatment, while the control group would be exposed to a neutral advertisement not intended to influence them in any way. This design would allow for a more reliable determination as to whether the fear appeal tactic is the influencing factor, or if some other variable is responsible for the variance. This determination will also be improved by conducting a pilot test of the instruments and treatments to be used for data collection to ensure their internal consistency, and allow for adjustments if necessary. In order to implement this design, a much larger sample size would need to be collected, meaning that more time would need to be allotted to complete the experiment. It would be worth the additional time and effort, however, as increasing the sample size will in turn increase the reliability of the results.

Other directions in which to take this research would be to use a different medium as the treatment. Watching a broadcast message may have more of an influence on viewers than simply viewing a print advertisement. More impactful graphics can be incorporated into a video than into a print medium. A video would also make it possible to measure physiological responses such as changes in heart rate, eye movement, galvanic skin response, etc., for which the print medium does not allow time. These

measurements may provide more reliable indicators than simply asking the respondents to report what they're feeling and experiencing. Additionally, other variables could be explored for differences between groups. In particular, it would be interesting to see if significant differences exist between lower, middle, and higher socio-economic statuses. Other variables that coincides with SES and that could be examined are level of education and ethnicity. Also, as mentioned in the results for H1, variables that take place during the cognitive stage of the formation of a behavioral response could act as predictors and could be examined to determine their level of impact. On the opposite end of that consideration would be holding the variables in this experiment constant, but changing the social issue on which the study focuses. For instance, this type of research could be employed to examine any aspect of social advertising such as teen pregnancy, drinking and driving, tobacco use, etc. There are any number of variables and directions in which to continue this research. It will be interesting to see where this type of research leads in the future.

CHAPTER XII

CONCLUSION

The purpose of this study was to examine the fear appeal tactic in advertising to determine its effectiveness regarding environmental responsibility, and to compare the level of impact between mothers and non-mothers. The specific environmental issue focused on in this research was that of the threat posed by the plastics industry. Additionally, the framework used to design the experimental procedure and materials, and to interpret the results was based on the theory of planned behavior.

The treatment utilized in this one-ad quasi-experiment was a simulated print advertisement that was created through a rigorous process of interjudge reliability testing. Participants' in this study were instructed to complete a pre-survey assessing their awareness and/or knowledge of environmental issues, their normative beliefs about environmentally responsible behaviors, and their perceived behavioral control, or ability to engage in such behaviors. After completion of the pre-survey, participants' were then exposed to the fear appeal advertisement. Following this exposure, participants' were asked to complete a post-survey examining the positive and negative emotions evoked by the advertisement, their attitudes toward environmentally responsible behaviors, and their intentions to behave in an environmentally responsible manner.

The assertions made in this research were that a fear appeal advertisement would create anxiety in the viewer, and that anxiety would have an influence on their attitudes

(H1) and behavioral intentions (H2), and that the participants' attitudes would have an effect on their behavioral intentions (H3). It was also proposed that the impact experienced with regard to all variables would be more pronounced in the group of mothers versus the group of non-mothers (H4).

The findings of this study showed support for the first three hypotheses, and showed partial support for the fourth hypothesis. Specifically, it was found that anxiety was created by the fear appeal advertisement, and that anxiety had an impact on participants' attitudes and intentions to behave with environmental responsibility, and the attitudes participants subscribed to did have an effect on their behavioral intentions. With regard to the fourth hypothesis, it was found that the group of mothers was more heavily impacted with respect to their behavioral intentions than the group of non-mothers, but this was not the case with respect to their attitudes or the level of anxiety they experienced.

As for the theory of planned behavior, all three constructs proposed by the theory (attitudes, normative beliefs, and perceived behavioral control) were determined to be predictors of the formation of behavioral intentions. The only aspect of the theory not supported by this study was that perceived behavioral control would outweigh the other two constructs, but this was not completely reliable since the perceived behavioral control scale was found to be unreliable. This portion of the instrument would need alterations, and the results would need to be recalculated for reliable data.

There were a number of limitations in this study, discussed in detail in the limitations section, which should be taken into account during future interpretations of these results. However, the overall concept and design of this research was valid and

produced significant results. Improvements upon the limitations and flaws in this study, and explorations into different directions in which to expand this type of research in the future, should produce more reliable, useful, and interesting results.

TABLE 1: SAMPLE CHARACTERISTICS

Gender	Frequency	Age	Frequency	Ethnicity	Frequency	Children	Frequency
Male	24	18-24	56	White (non-Hispanic)	66	No	61
Female	88	25-30	10	Hispanic/Latino	38	Yes	51
		31-40	19	African American	2		
		41-50	13	Asian	3		
		51 or older	14	Other	3		

Marital Status	Frequency	Annual Income	Frequency	Education Level	Frequency
Single	59	<\$10K	44	None	1
Living Together	9	\$10-25K	21	GED	7
Married	35	\$25-40K	14	High School Diploma	63
Divorced	9	\$40-50K	7	Bachelor's Degree	30
		\$55K or more	26	Master's/Doctoral Degree	11

TABLE 2: INSTRUMENT VALIDATION

	Cronbach's Alpha	Total Variance Explained
Awareness/Knowledge	.52	68%
Normative Beliefs	.86	78%
Perceived Behavioral Control	.38	62%
Negative Emotions	.95	70%
Positive Emotions	.86	56%
Anxiety	.90	77%

TABLE 3: REGRESSION (H1)
Impact of Anxiety on Attitudes Toward Environmental Responsibility

Model	Unstandardized		Standardized	t	R	R Square	Sig.
	Coefficients		Coefficients				
	B	Std. Error	Beta				
Anxiety	.227	.098	.216	2.318	.216 ^a	.047	.022

a. Dependent Variable: my involvement in environmental activities today will help save the environment for future generations

a. Predictors: (Constant), anxiety

TABLE 4: REGRESSION (H2)
Impact of Anxiety on Intentions to Behave in Environmentally Responsible Ways

Model	Unstandardized		Standardized	t	R	R Square	Sig.
	Coefficients		Coefficients				
	B	Std. Error	Beta				
Anxiety	.242	.046	.449	5.267	.449 ^a	.201	.000

a. Dependent Variable: Behavior

a. Predictors: (Constant), anxiety

TABLE 5: REGRESSION (H3)
Impact of Attitudes on Intentions to Behave in Environmentally Responsible Ways

Model	Unstandardized		Standardized	t	R	R Square	Sig.
	Coefficients		Coefficients				
	B	Std. Error	Beta				
attitude	.164	.046	.321	3.556	.321 ^a	.103	.001

a. Dependent Variable: Behavior

a. Predictors: (Constant), my involvement in environmental activities today will help save the environment for future generations

TABLE 6: ONE-WAY ANOVA (H4)
Difference in Anxiety, Attitudes, and Behavioral Intentions Between Mothers and Non-mothers

		Sum of Squares	Df	Mean Square	F	Sig.
My involvement in environmental activities today will help save the environment for future generations.	Between Groups	3.682	1	3.682	2.693	.104
	Within Groups	117.591	86	1.367		
	Total	121.273	87			
How anxious did the ad make you feel?	Between Groups	.727	1	.727	.477	.492
	Within Groups	131.045	86	1.524		
	Total	131.773	87			
If offered, I would participate in a community recycling program.	Between Groups	4.545	1	4.545	4.666	.034
	Within Groups	83.773	86	.974		
	Total	88.318	87			

TABLE 7: REGRESSION (NORMATIVE)
Impact of Normative Beliefs on Intentions to Behave in Environmentally Responsible Ways

Model	Unstandardized		Standardized	t	R	R Square	Sig.
	Coefficients		Coefficients				
	B	Std. Error	Beta				
Normative	.069	.019	.321	3.556	.321 ^a	.103	.001

a. Dependent Variable: Behavior

a. Predictors: (Constant), Normative

TABLE 8: REGRESSION (PBC)
Impact of Perceived Behavioral Control on Intentions to Behave in Environmentally Responsible Ways

Model	Unstandardized		Standardized	t	R	R Square	Sig.
	Coefficients		Coefficients				
	B	Std. Error	Beta				
PBC	.080	.026	.285	3.113	.285 ^a	.081	.002

a. Dependent Variable: Behavior

a. Predictors: (Constant), PBC



FIGURE 1: TREATMENT (ENGLISH)



FIGURE 2: TREATMENT (SPANISH)

APPENDIX A

PRE-SURVEY (ENGLISH)

ID: _____

SURVEY

The purpose of this survey is to increase understanding of viewer response to advertising. Your participation will help us recognize the effects of advertising on behavioral intentions of consumers. Please answer all of the following questions.

Please answer the following questions using a 1-5 scale.

	Strongly Disagree				Strongly Agree
1. I would describe myself as environmentally responsible.	1	2	3	4	5
2. The amount of energy I use does not affect the environment to any significant degree.	1	2	3	4	5
3. Excess packaging is one source of pollution that could be avoided if manufacturers were more environmentally aware.	1	2	3	4	5
4. The people who are important to me are environmentally responsible.	1	2	3	4	5
5. The people who are important to me encourage me to be environmentally responsible.	1	2	3	4	5
6. The people who are important to me recycle.	1	2	3	4	5

	Never				Always
1. My community offers curbside recycling.	1	2	3	4	5
2. My community does not offer curbside recycling, but I have convenient access to a recycling facility.	1	2	3	4	5
3. Environmental groups exist and meet within my community.	1	2	3	4	5

Please view the advertisement on the next page, then answer the questions that follow.

APPENDIX B

PRE-SURVEY (SPANISH)

ID: _____

Encuesta

El propósito de este estudio es aumentar la comprensión del espectador ante la publicidad. Su participación nos ayudará a reconocer los efectos de la publicidad en el comportamiento de los consumidores. Por favor, conteste las preguntas siguientes.

Por favor responda las siguientes preguntas usando la escala del 1 al 5

	Muy en Desacuerdo				Totalmente de Acuerdo
1. Yo me considero ambientalmente responsable.	1	2	3	4	5
2. La cantidad de energía que uso no afecta mucho al medio ambiente.	1	2	3	4	5
3. El exceso de cajas y paquetes contamina el medio ambiente y podría evitarse si los fabricantes estuvieran más preocupados por el medio ambiente.	1	2	3	4	5
4. Las personas que son cercanas a mí son responsables con el medio ambiente.	1	2	3	4	5
5. Las personas que son cercanas a mí me animan a ser responsables con el medio ambiente.	1	2	3	4	5
6. Las personas que son importantes para mí reciclan.	1	2	3	4	5
	Nunca				Siempre
1. En mi comunidad existen contenedores de reciclaje.	1	2	3	4	5
2. En mi comunidad no existen contenedores de reciclaje y tampoco tengo acceso a un centro de reciclaje.	1	2	3	4	5
3. Existen grupos ambientalistas en mi comunidad y realizan sus reuniones dentro de la zona	1	2	3	4	5

Por favor vea el anuncio en la página siguiente y responda a las preguntas que siguen.

APPENDIX C

POST-SURVEY (ENGLISH)

Please answer the following questions using a 1-5 scale.

After viewing the advertisement, I felt:

	Strongly Disagree				Strongly Agree
1. Scared	1	2	3	4	5
2. Afraid	1	2	3	4	5
3. Upset	1	2	3	4	5
4. Distressed	1	2	3	4	5
5. Jittery	1	2	3	4	5
6. Nervous	1	2	3	4	5
7. Ashamed	1	2	3	4	5
8. Guilty	1	2	3	4	5
9. Irritable	1	2	3	4	5
10. Hostile	1	2	3	4	5
11. Panicky	1	2	3	4	5
12. Troubled	1	2	3	4	5
13. Sad	1	2	3	4	5
14. Worried	1	2	3	4	5
15. Regretful	1	2	3	4	5
16. Remorseful	1	2	3	4	5
17. Angry	1	2	3	4	5
18. Edgy	1	2	3	4	5
19. Depressed	1	2	3	4	5
20. Uncomfortable	1	2	3	4	5
21. Uneasy	1	2	3	4	5
22. Tense	1	2	3	4	5
23. Enthusiastic	1	2	3	4	5
24. Interested	1	2	3	4	5
25. Determined	1	2	3	4	5
26. Excited	1	2	3	4	5
27. Inspired	1	2	3	4	5
28. Alert	1	2	3	4	5
29. Active	1	2	3	4	5
30. Strong	1	2	3	4	5
31. Proud	1	2	3	4	5
32. Attentive	1	2	3	4	5
33. Aroused	1	2	3	4	5
34. Thrilled	1	2	3	4	5

	Not at all				Extremely
1. How threatened did the ad make you feel?	1	2	3	4	5
2. How worried did the ad make you feel?	1	2	3	4	5
3. How frightened did the ad make you feel?	1	2	3	4	5
4. How anxious did the ad make you feel?	1	2	3	4	5

Please answer the following questions using a 1-5 scale.

	Strongly Disagree				Strongly Agree
1. It is no use worrying about environmental issues: I can't do anything about them anyway.	1	2	3	4	5
2. The earth's resources are infinite and should be used to the fullest to increase the human standard of living.	1	2	3	4	5
3. Economic growth should take precedence over environmental considerations.	1	2	3	4	5
4. There is nothing the average citizen can do to help stop environmental pollution	1	2	3	4	5
5. My involvement in environmental activities today will help save the environment for future generations.	1	2	3	4	5
6. People who litter should be fined \$500 and be forced to work on road crews and pick up garbage.	1	2	3	4	5
7. Wearing exotic furs and leather is not offensive.	1	2	3	4	5

Please answer the following questions using a 1-5 scale.

	Never				Always
1. If offered, I would attend environmental/conservation group meetings.	1	2	3	4	5
2. If offered, I would participate in a recycling program at work.	1	2	3	4	5
3. If offered, I would participate in a community recycling program.	1	2	3	4	5
4. If no one were looking, I would litter.	1	2	3	4	5
5. If possible, I would car pool.	1	2	3	4	5
6. I would consider turning lights out when I leave a room.	1	2	3	4	5
7. I would consider monitoring my usage of heating and A/C to reduce environmental impact.	1	2	3	4	5
8. I would consider not purchasing products that are known to cause pollution.	1	2	3	4	5
9. I would consider cutting up plastic rings around six-packs of soft drinks.	1	2	3	4	5
10. I would consider bringing my own reusable bags to the grocery store.	1	2	3	4	5
11. I would consider owning a reusable canteen to avoid using plastic bottles.	1	2	3	4	5

Please complete the following demographic information.

- | | | |
|------------------------|--------------------------|----------------------------|
| 1. Gender | 4. Marital Status | 7. Education Level |
| 1 Male | 1 Single | 1 GED |
| 2 Female | 2 Living Together | 2 High School diploma |
| | 3 Married | 3 Bachelor's degree |
| 2. Age | 4 Divorced | 4 Master's/Doctoral degree |
| 1 18-24 | 5 Widowed | |
| 2 25-30 | | |
| 3 31-40 | 5. Do you have children? | |
| 4 41-50 | 1 No | |
| 5 51 or older | 2 Yes | |
| | | |
| 3. Ethnicity | 6. Annual Income | |
| 1 White (Non-Hispanic) | 1 Less than \$10,000 | |
| 2 Hispanic/Latino | 2 \$10,000 - 25,000 | |
| 3 African American | 3 \$25,000 - 40,000 | |
| 4 Asian | 4 \$40,000 - 50,000 | |
| 5 Other | 5 \$55,000 or higher | |

APPENDIX D

POST-SURVEY (SPANISH)

Por favor responde las siguientes preguntas usando la escala del 1 al 5

Luego de ver la publicidad, me sentí:

	Muy de Acuerdo				Totalmente de Acuerdo
1. Espantado	1	2	3	4	5
2. Asustado	1	2	3	4	5
3. Molesto	1	2	3	4	5
4. Angustiado	1	2	3	4	5
5. Muy nervioso	1	2	3	4	5
6. Nervioso	1	2	3	4	5
7. Avergonzado	1	2	3	4	5
8. Culpable	1	2	3	4	5
9. Irritado	1	2	3	4	5
10. Hostil	1	2	3	4	5
11. En pánico	1	2	3	4	5
12. Intranquilo	1	2	3	4	5
13. Triste	1	2	3	4	5
14. Preocupado	1	2	3	4	5
15. Arrepentido	1	2	3	4	5
16. Con remordimiento	1	2	3	4	5
17. Enojado	1	2	3	4	5
18. Inquieto	1	2	3	4	5
19. Deprimido	1	2	3	4	5
20. Incómodo	1	2	3	4	5
21. Agitado	1	2	3	4	5
22. Tenso	1	2	3	4	5
23. Entusiasmado	1	2	3	4	5
24. Interesado	1	2	3	4	5
25. Determinado	1	2	3	4	5
26. Emocionado	1	2	3	4	5
27. Inspirado	1	2	3	4	5
28. Alerta	1	2	3	4	5
29. Activo	1	2	3	4	5
30. Fuerte	1	2	3	4	5
31. Orgullosa	1	2	3	4	5
32. Atento	1	2	3	4	5
33. Impresionado	1	2	3	4	5
34. Conmovid	1	2	3	4	5

	Nada				Extremada- mente
1. ¿Cuán amenazado te hizo sentir la publicidad?	1	2	3	4	5
2. ¿Cuán preocupado te hizo sentir la publicidad?	1	2	3	4	5
3. ¿Cuán aterrado te hizo sentir la publicidad?	1	2	3	4	5
4. ¿Cuán angustiado te hizo sentir la publicidad?	1	2	3	4	5

Por favor responde las siguientes preguntas usando la escala del 1 al 5

	Muy en Desacuerdo				Muy Deacuerdo
1. No tiene sentido preocuparse por el medio ambiente: No puedo hacer nada al respecto de todos modos.	1	2	3	4	5
2. Los recursos que derivan de la tierra son infinitos y se deben utilizar al máximo para mejorar el nivel de vida de las personas.	1	2	3	4	5
3. El crecimiento económico debe ser considerado más importante que los cuidados del medio ambiente.	1	2	3	4	5
4. No hay nada que el ciudadano promedio puede hacer para ayudar a detener la contaminación ambiental	1	2	3	4	5
5. Mi participación en actividades ambientales hoy ayudará a conservar el medio ambiente para las generaciones futuras.	1	2	3	4	5
6. Las personas que botan basura a la calle deben ser multados con \$ 500 y ser obligados a trabajar recogiendo basura en las carreteras.	1	2	3	4	5
7. El uso de pieles exóticas y cuero no es ofensivo.	1	2	3	4	5

Por favor responde las siguientes preguntas usando la escala del 1 al 5

	Nunca				Siempre
1. Si ofrecieran, yo asistiría a reuniones de grupo que apoyan y cuidan el medio ambiente.	1	2	3	4	5
2. Si ofrecieran, yo participaría en programas de reciclaje en el trabajo.	1	2	3	4	5
3. Si ofrecieran, yo participaría en programas comunitarios de reciclaje.	1	2	3	4	5
4. Si nadie estuviera mirando, yo botaría basura a la calle.	1	2	3	4	5
5. Si fuera posible, pediría aventón para transportarme.	1	2	3	4	5
6. Yo consideraría apagar las luces al salir de una habitación.	1	2	3	4	5
7. Yo consideraría supervisar mi uso de la calefacción y el aire acondicionado para reducir el impacto ambiental.	1	2	3	4	5
8. Yo consideraría no comprar productos que son conocidos por causar daños al medio ambiente.	1	2	3	4	5
9. Yo consideraría cortar los agaradores de plástico que vienen en los refrescos de plástico.	1	2	3	4	5
10. Yo consideraría llevar mis propias bolsas reutilizables a la tienda de comestibles.	1	2	3	4	5
11. Yo consideraría comprar una cantimplora para evitar el uso de botellas de plástico.	1	2	3	4	5

Por favor completa la siguiente información demográfica:

- | | | |
|-----------------------|---------------------|---------------------------|
| 1. Género | 4. Status | 7. Nivel de Educación |
| 1 Masculino | Marital | 1 GED |
| 2 Femenino | 1 Soltero | 2. Secundaria |
| | 2 Living Together | 3 Licenciatura/Ingeniería |
| | 3 Casado | 4 Masterado/Doctorado |
| 2. Edad | 4 Divorciado | |
| 1 18-24 | 5 Viudo | |
| 2 25-30 | | |
| 3 31-40 | 5. ¿Tiene hijos? | |
| 4 41-50 | 1 No | |
| 5 51 o más | 2 Yes | |
| 3. Grupo Étnico | 6. Ingreso Annual | |
| 1 Blanco (No-Hispano) | 1 Menos de \$10,000 | |
| 2 Hispano/Latino | 2 \$10,000 - 25,000 | |
| 3 Afroamericano | 3 \$25,000 - 40,000 | |
| 4 Asiático | 4 \$40,000 - 50,000 | |
| 5 Otro | 5 \$55,000 o más | |

APPENDIX E

CONSENT LETTER (ENGLISH)

Dear Parent,

I would like to invite you to be part of the research study entitled *Fear Appeal Advertising: The Effect on Motherhood and Environmental Concern*. The purpose of this study is to determine if advertisements using fear tactics can have a positive effect and response on mothers.

The forms contained in your packet include a pre-survey, a print advertisement, and a post-survey. The pre-survey is to determine your awareness of environmental issues/responsibility. The print advertisement is a message employing a non-invasive fear appeal tactic with the goal of encouraging environmental awareness. The post-survey is used to measure the types of emotions triggered by the advertisement, and your demographic information.

Thank you for taking the time out of your schedule to participate in this study.

Sincerely,

Shawna White
Graduate Student
Journalism and Mass Communication
Texas State University

APPENDIX F

CONSENT LETTER (SPANISH)

Estimado padre de familia,

Me gustaría invitarle a participar en el estudio de investigación titulado *Publicidad del miedo: Su efecto en la maternidad y en la preocupación ambiental*. El objetivo de este estudio es determinar si el uso de las técnicas de miedo en la publicidad puede tener un efecto y respuesta positiva en las madres.

El material contenido en su paquete incluye un cuestionario inicial, un arte publicitario impreso y un cuestionario final. El cuestionario inicial es para determinar su conocimiento en temas ambientales. Luego, el arte publicitario impreso contiene un mensaje que utiliza tácticas de miedo no invasivas que busca fomentar la conciencia ambiental. La encuesta final se utilizará para medir los tipos de emociones provocadas por el anuncio y también para conocer su datos demográficos.

Gracias por dedicar un tiempo para participar en este estudio.

Atentamente,

Shawna White
Estudiante del Programa de Graduados
Periodismo y Medios de Comunicación
Universidad Estatal de Texas – San Marcos

REFERENCES

- Ajzen, I. (2012). Martin Fishbein's legacy: The reasoned action approach. *Annals of the American Academy of Political and Social Science, 640*(1), 11-27.
- Bearden, W. O., Netemeyer, R. G., & Haws, K. L. (2011). Values and goals. In *Handbook of marketing scales: Multi-item measures for marketing and consumer behavior research* (3rd ed.; Ch. 3). Retrieved from <http://knowledge.sagepub.com.libproxy.txstate.edu/view/hdbkmarketingscales3ed/n3.xml>
- Belch, G. E., & Belch, M. A. (2007). *Advertising and promotion: An integrated marketing communications perspective* (7th ed.). New York, NY: McGraw-Hill/Irwin.
- Bennett, R. (1996). Effects of horrific fear appeals on public attitudes towards AIDS. *International Journal of Advertising, 15*(3), 183-202.
- Berey, L. A., & Pollay, R. W. (1968). The influencing role of the child in family decision making. *Journal of Marketing Research, 5*(1), 70-72.
- Bui, L. (1999). Mothers in public relations: How are they balancing career and family? *Public Relations Quarterly, 44*(2), 23-26.
- Burnett, J., & Wilkes, R. (1980). Fear appeals to segments only. *Journal of Advertising Research, 20*(5), 21.

- Burr, R. M., & Burr, P. L. (1977). Parental responses to child marketing. *Journal of Advertising Research*, 17(6), 17-20.
- Carlson, L., Grossbart, S., & Walsh, A. (1990). Mothers' communication orientation and consumer-socialization tendencies. *Journal of Advertising*, 19(3), 27-38.
- Carrigan, M., & Szmigin, I. (2004). Time, uncertainty and the expectancy experience: An interpretive exploration of consumption and impending motherhood. *Journal of Marketing Management*, 20(7,8), 771-798.
- Cherian, J., & Jacob, J. (2012). Green marketing: A study of consumers' attitude towards environment friendly products. *Asian Social Science*, 8(12), 117-126.
- Cochrane, L., & Quester, P. (2005). Fear in advertising: The influence of consumers' product involvement and culture. *Journal of International Consumer Marketing*, 17(2,3), 7-32.
- Cosmas, S. C., & Yannopoulos, N. (1981). Advertising directed to children: A look at the mother's point of view. *Journal of the Academy of Marketing Science*, 9(3), 174-190.
- Davies, A., Dobscha, S., Geiger, S., O'Donohoe, S., O'Malley, L., Prothero, A., . . . Thomsen, T. U. (2010a). Buying into motherhood? Problematic consumption and ambivalence in transitional phases. *Consumption Markets and Culture*, 13(4), 373-397.
- Davies, A., Dobscha, S., Geiger, S., O'Donohoe, S., O'Malley, L., Prothero, A., . . . Thomsen, T. U. (2010b). Motherhood, marketization, and consumer vulnerability. *Journal of Macromarketing*, 30(4), 384-397.

- Dharod, J. M., Drewette-Card, R., & Crawford, D. (2011). Development of the Oxford Hills Healthy Moms Project using a social marketing process: A community-based physical activity and nutrition intervention for low-socioeconomic-status mothers in a rural area in Maine. *Health Promotion Practice, 12*(2), 1122-1142.
- Dillard, J., Plotnick, C., Godbold, L., Freimuth, V., & Edgar, T. (1996). The multiple affective outcomes of AIDS PSAs: Fear appeals do more than scare people. *Communication Research, 23*(1), 44-72.
- Duke, C., Pickett, G., Carlson, L., & Grove, S. (1993). A method for evaluating the ethics of fear appeals: JPP&M JM & PP. *Journal of Public Policy and Marketing, 12*(1), 120.
- Ferman, J. (2012). U.S. Department of Commerce Industry report: Dolls, toys, games, and children's vehicles NAICS code 33993. Retrieved from <http://ita.doc.gov/td/ocg/2012%20toy%20report.pdf>
- Galst, J. P., & White, M. A. (1976). The unhealthy persuaders: The reinforcing value of television and children's purchase-influencing attempts at the supermarket. *Child Development, 47*(4), 1089-1096.
- Gengler, C. E., Mulvey, M. S., & Oglethorpe, J. E. (1999). A means-end analysis of mothers' infant feeding choices. *Journal of Public Policy and Marketing, 18*(2), 172-188.
- Gore, P., Madhavan, S., Curry, D., McClurg, G., Castiglia, M., Rosenbluth, S. A., & Smego, R. A. (1998). Persuasive messages. *Marketing Health Services, 18*(4), 32-43.

- Grossbart, S., Carlson, L., & Walsh, A. (1991). Consumer socialization and frequency of shopping with children. *Journal of the Academy of Marketing Science*, 19(3), 155-163.
- Hale, J., Lemieux, R., & Mongeau, P. (1995). Cognitive processing of fear arousing message content. *Communication Research*, 22(4), 459.
- Henry, H. K. M., & Borzekowski, D. L. G. (2011). The nag factor. *Journal of Children and Media*, 5(3), 298-317.
- Henthorne, T., LaTour, M., & Nataraajan, R. (1993). Fear appeals in print advertising: An analysis of arousal and ad response. *Journal of Advertising*, 22(2), 59.
- Hogg, M., Curasi, C. F., & Maclaran, P. (2004). The (re-)configuration of production and consumption in empty nest households/families. *Consumption, Markets and Culture*, 7(3), 239-259.
- Hughes, R. (1999). Use of a societal marketing strategy to promote community acceptance of breastfeeding in public. *Australian Journal of Nutrition and Dietetics*, 56(2), 108-110.
- Isler, L., Popper, E. T., & Ward, S. (1987). Children's purchase requests and parental responses: Results from a diary study. *Journal of Advertising Research*, 27(5), 28-39.
- Johnson, K., & LaTour, M. (1991). AIDS prevention and college students: Male and female responses to "fear-provoking" messages. *Health Marketing Quarterly*, 8(3,4), 139.

- Jordan, C. M., Lee, P. A., Olkon, R., & Pirie, P. L. (2007). Messages from moms: Barriers to and facilitators of behavior change in a lead poisoning preventive education project. *Journal of Health Communication, 12*(8), 771-786.
- Kalafatis, S., Pollard, M., East, R., & Tsogas, M. (1999). Green marketing and Ajzen's theory of planned behaviour: A cross-market examination. *The Journal of Consumer Marketing, 16*(5), 441-460.
- Kaplan, D., & Graff, K. (2008). Marketing breastfeeding – Reversing corporate influence on infant feeding practices. *Journal of Urban Health, 85*(4), 486-504.
- Keller, P., & Block, L. (1996). Increasing the persuasiveness of fear appeals: The effect of arousal and elaboration. *Journal of Consumer Research, 22*(4), 448.
- Kim, Y., & Han, H. (2010). Intention to pay conventional-hotel prices at a green hotel – A modification of the theory of planned behavior. *Journal of Sustainable Tourism, 18*(8), 997-1014.
- Kimura, A. (2008). Who defines babies' "needs"? The scientization of baby food in Indonesia. *Social Politics, 15*(2), 232-260.
- Knoblauch, J. A. (2009). The environmental toll of plastics. Retrieved from <http://www.environmentalhealthnews.org/ehs/news/dangers-of-plastic>
- LaTour, M., & Pitts, R. (1989). Using fear appeal in advertising for AIDS prevention in college-age population. *Marketing Health Services, 9*(3), 5.
- LaTour, M., & Rotfeld, H. (1997). There are threats and (maybe) fear-caused arousal: Theory and confusions of appeals to fear and fear arousal itself. *Journal of Advertising, 26*(3), 45-59.

- LaTour, M., Snipes, R., & Bliss, S. (1996). Don't be afraid to use fear appeals: An experimental study. *Journal of Advertising Research*, 36(2), 59.
- LaTour, M., & Zahra, S. (1989). Fear appeals as advertising strategy: Should they be used? *The Journal of Consumer Marketing*, 6(2), 61.
- Lynn, J. (1974). Effects of persuasive appeals in public service advertising: Four message types perceived on basis of persuasive appeal – emotional, logical, source-attribute, fear. *Journalism Quarterly*, 51, 622-630.
- McDaniel, S. W., & Rylander, D. H. (1993). Strategic green marketing. *The Journal of Consumer Marketing* 10(3), 4-10.
- Moszynski, P. (2007). Government should restrict advertising of baby mild products. *British Medical Journal (International Edition)*, 335(7624), 794.
- Nelson, A. (2003). Transition to motherhood. *Journal of Obstetric, Gynecologic, and Neonatal Nursing* 32(4), 465-477.
- Potter, R., LaTour, M., Braun-LaTour, K., & Reichert, T. (2006). The impact of program context on motivational system activation and subsequent effects on processing a fear appeal. *Journal of Advertising*, 35(3), 67-80.
- Prue, C. E., Flores, A. L., Panissidi, P., & Lira, A. (2008). But I've already had a healthy baby: Folic Acid formative research with Latina mothers. *Journal of Women's Health*, 17(8), 1257-1269.
- Pugh, A. (2005). Selling compromise: Toys, motherhood, and the cultural deal. *Gender and Society*, 19(6), 729-749.

- Rodwan, J. G. (2009). Challenging circumstances persist: Future growth anticipated: U.S. and International development and statistics. Retrieved from <http://www.bottledwater.org/files/2009BWstats.pdf>
- Rosenberg, K. D., Eastham, C. A., Kasehagen, L. J., & Sandoval, A. P. (2008). Marketing infant formula through hospitals: The impact of commercial hospital discharge packs on breastfeeding. *American Journal of Public Health, 98*(2), 290-295.
- Schou, L. (1987). Use of mass-media and active involvement in a national dental health campaign in Scotland. *Community Dentistry and Oral Epidemiology, 15*(1), 14-18.
- Sevin, E., & Ladwein, R. (2007). To start being... the anticipation of a social role through consumption in life transition: The case of the first-time pregnancy. *Advances in Consumer Research, 35*, 325.
- Shafer, A., Cates, J. R., Diehl, S. J., Hartmann, M. (2011). Asking Mom: Formative research for an HPV vaccine campaign targeting mothers of adolescent girls. *Journal of Health Communication, 16*(9), 988-1005.
- Shanahan, K. J., & Hopkins, C. D. (2007). Truths, half-truths, and deceptions. *Journal of Advertising, 36*(2), 33-48.
- Smith, K., & Stutts, M. (2003). Effects of short-term cosmetic versus long-term health fear appeals in anti-smoking advertisements on the smoking behaviour of adolescents. *Journal of Consumer Behavior, 3*(2), 157-177.

- Snipes, R., LaTour, M., & Bliss, S. (1999). A model of the effects of self-efficacy on the perceived ethicality and performance of fear appeals in advertising. *Journal of Business Ethics, 19*(3), 273-285.
- Sobel, H. L., Iellamo, A., Raya, R. R., Padilla, A. A., Olive, J. M., & Nyunt-U, S. (2011). Is unimpeded marketing for breast milk substitutes responsible for the decline in breastfeeding in the Philippines? An exploratory survey and focus group analysis. *Social Science and Medicine, 73*(10), 1445-1448.
- Society of the Plastics Industry. (2012). About plastics – Economic statistics. Retrieved from <http://www.plasticsindustry.org/AboutPlastics/content.cfm?ItemNumber=658&RToken=37187&userID=26285>
- Stone, G, Barnes, J. H., & Montgomery, C. (1995). ECOSCALE: A scale for the measurement of environmentally responsible consumers. *Psychology & Marketing, 12*, 595-612.
- Tanner, J., Day, E., & Crask, M. (1989). Protection motivation theory: An extension of fear appeals theory in communication. *Journal of Business Research, 19*(4), 267.
- Tanner, J., Hunt, J., & Eppright, D. (1991). The protection motivation model: A normative model of fear appeals. *Journal of Marketing, 55*(3), 36.
- Teal, G., & Loomis, J. (2000). Effects of gender and parental status on the economic valuation of increasing wetlands, reducing wildlife contamination and increasing salmon populations. *Society and Natural Resources, 13*(1), 1-14.
- Terblanche-Smit, M., & Terblanche, N. (2010). Race and attitude formation in HIV/AIDS fear advertising. *Journal of Business Research, 63*(2), 121.

- Thompson, C. J. (1996). Caring consumers: Gendered consumption meanings and the juggling lifestyle. *Journal of Consumer Research*, 22(4), 388-407.
- Tillgren, P., Eriksson, L., Guldbrandsson, K., & Spiik, M. (2000). Impact of direct mail as a method to recruit smoking mothers into a "Quit and Win" contest. *Journal of Health Communication*, 5(4), 293-303.
- Tiwari, S., Tripathi, D. M., Srivastava, U., & Yadav, P. K. (2011). Green marketing – Emerging dimensions. *Journal of Business Excellence*, 2(1), 18-23.
- Walsh, A. D., Lacznik, R. N., & Carlson, L. (1998). Mothers' preferences for regulating children's television. *Journal of Advertising*, 27(3), 23-36.
- Wilbraham, L. (2008). Parental communication with children about sex in the South African HIV epidemic: raced, classed and cultural appropriations of lovelines. *African Journal of AIDS Research*, 7(1), 95-109.
- Wolf, J. (2007). Is breast really best? Risk and total motherhood in the National Breastfeeding Awareness Campaign. *Journal of Health Politics, Policy and Law*, 32(4), 595.

VITA

Shawna Renee White was born in Seguin, Texas on April 17, 1983, and grew up in Luling, Texas. She graduated number five in her class from Luling High School in 2001, and thereafter entered Texas State University-San Marcos. Shawna graduated *summa cum laude* from Texas State University-San Marcos in December 2005, with the degree of Bachelor of Arts in Psychology. For the next several years Shawna continued with her occupation in the field of Pharmacy, and in August 2010 she entered into the Graduate College at Texas State University-San Marcos.

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This thesis was typed by Shawna R. White.