

THESIS

MILLENNIAL CONSUMERS' RESPONSES TO ADVERTISING FOR A  
TRANSFORMATIONAL APPAREL PRODUCT

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## ABSTRACT

### MILLENNIAL CONSUMERS' RESPONSES TO ADVERTISING FOR A TRANSFORMATIONAL APPAREL PRODUCT

Owing to the growth in the sportswear industry, and more specifically growth in the outdoor wear industry, companies are innovating products to find a competitive advantage over well established brands. Consumer demand for better performing attire manufactured with consideration for the environment is driving product development and companies' commitment to more sustainable and transparent practices. One solution to the growing consumer demands is adaptable or transformational apparel. Adaptable or transformational apparel refers to apparel products designed with an ability to be manipulated to serve multiple functions beyond the normal expectations and functions of the apparel item. Members of the Millennial generation (i.e., individuals born between 1981 and 1997) are likely to spend more money on a product from a sustainable brand than from a non-sustainable brand (Bucic, Harris, & Arli, 2012; Cone Communications, 2015; The Center for Generational Kinetics, 2016; Fry, 2016).

This cohort is concerned with the environment, is interested in product innovations, and has an expectation for 'cutting-edge' products. The Millennial generation is the largest generation in the U.S. population and workforce, and therefore has a high purchasing power (Fry, 2016). Based upon Millennial consumers' characteristics, this cohort was identified as an ideal target market for transformational outdoor wear apparel.

Consumers' preferences for the functionality and sustainability of clothing has been examined in specific contexts; however, to date, there is limited research examining consumers'

acceptance of transformational apparel for use in outdoor and sport activities. Therefore, this study examined how message framing of functionality and sustainability for product attributes influenced Millennial consumers' attitudes toward advertisements, attitudes toward brand, and purchase intentions toward a transformational apparel product. An integrated conceptual framework, which included the model of Message Framing for Brand Communication (MFBC) (Tsai, 2007) and the Theory of Planned Behavior (Ajzen, 1991), informed the development of the present study. Together, these models provided a framework for examining consumers' responses to advertising messages for a transformational apparel product.

Data were collected through an online survey administered through the survey firm Qualtrics. The final sample included 176 participants born between the years 1981 and 1997. The results indicated that message framing did not influence Millennial consumers' attitudes toward advertisements for a transformational textile product, however, their attitudes toward advertisements did influence Millennial consumers' attitudes toward the Loki brand. Findings from the basic model revealed that Millennial consumers' purchase intentions toward a transformational apparel product were influenced by attitudes toward the brand and subjective norm, but they were not influenced by perceived behavioral control. Furthermore, findings from an extended regression model revealed that the consumers' purchase intentions were influenced by outdoor participation, product knowledge, and attitudes toward the brand, whereas self-construal, product involvement, subjective norm, and perceived behavioral control did not influence purchase intentions.

The findings from this research revealed several implications for product development and marketing as well as suggestions for future research. This research has implications for the

outdoor wear industry specifically with respect to apparel product development and marketing initiatives targeted to the Millennial generation.

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## DEFINITION OF TERMS

**Apparel adaptability**: a product's ability to be manipulated unusually or simply by the wearer to create a product with different functions or usages (Cao et al., 2014).

**Athletic wear**: apparel designed for comfort, moderate physical activity and often is designed to be fashionable (Kell, 2014).

**Brand**: a distinguished name, design, term, or symbol that helps to identify a product from its competitors.

**Design adaptability**: a product's ability to be adapted for multiple uses, functioning with more than one products traditional design capabilities (Cao et al., 2014).

**Environmental commitment**: An individual's actions related to their personal environmental commitment (Kim & Damhorst, 1999).

**Message framing**: an advertising message strategy that focuses on how a message is constructed or presented in brand communications (Tsai, 2007).

**Product knowledge**: the combination of consumers' subjective and actual knowledge about a product.

**Sportswear**: apparel and footwear made for sports participation and casual clothes worn for daily activities (Ko et al., 2012).

**Sustainable product**: a product that is designed/developed based upon the presumption that resources are finite and therefore sustainable practices support the use of materials to meet the needs of the present user without compromising the ability of future generations to meet their own needs. Sustainable practices are often related to environmental conservation and economic efforts (UCLA Sustainability, n.d.).

**Transformational apparel product**: a product that uses materials from one garment to satisfy the need for materials/functionality for another garment/product while maintaining the function of the original garment (Wang et al., 2014).

## CHAPTER I: INTRODUCTION

Global sales for sportswear reached approximately \$350 billion in 2017 (Graeve, 2016; Statista, n.d.). Global sales growth in this apparel category has outpaced other major categories (e.g., menswear, womenswear, footwear) in recent years (Bain, 2017) owing to a number of factors, including growing disposable incomes, the growing importance of health and fitness, and an increase in the number of women who participate in sports and other physical activities worldwide (Bisht, 2015). Sportswear is a broad apparel category that includes items for an array of physical activity and sport, and includes frequently noted subcategories such as ‘athletic wear,’ ‘active wear,’ ‘athleisure,’ and ‘outdoor wear.’ Although the distinction between these subcategories is not always clear, athletic wear – apparel for the court, field, track and gym (e.g., Nike, Adidas) – accounts for the greatest portion of global sales, which is estimated to reach \$180-\$185 billion by 2020 (Bisht, 2015; Lieber, 2015). By comparison, the outdoor wear sector (e.g. climbing, hiking, fishing, skiing apparel), which includes companies such as North Face, Patagonia and REI, represents a much lower percentage of the sportswear market (\$4 billion in 2014) (Lieber, 2015).

One hundred and forty-three million Americans participated in a wide range of outdoor activities in 2014 (Lieber, 2015), and these consumers are redefining the ‘outdoor enthusiast’ market, which has proven profitable for established outdoor apparel companies. For example, REI’s revenue grew 9.3% in 2015 and Patagonia’s profits tripled from 2013 to 2015 (Lieber, 2015; Nickelsburg, 2016). Sales of outdoor wear are expected to grow alongside other

sportswear categories in the near future as leading athletic and active wear companies (e.g., Adidas, Nike, Lululemon, Under Armor) continue their recent foray into the outdoor wear market (Bennett, 2014; Lieber, 2015). These companies recognize growth in the outdoor apparel sector as an opportunity, and are refining their product development and marketing strategies to reach the ‘athleisure’ customer – the consumer who is not engaged in technical training to climb a mountain, but rather is interested in exploring the outdoors while wearing high quality merchandise and looking fashionable. For example, Nike, Adidas, and Lululemon have all adapted their advertising messages to convey that they offer fashionable products for a broad range of outdoor activities including hiking and bouldering (Lieber, 2015).

This growing number of companies seeking to establish competitive advantage in the outdoor apparel sector is driving the adoption and refinement of product development and marketing strategies focused upon apparel performance, sustainability, and functionality. Market analyses indicate that the differences between athletic wear, active wear, athleisure, outdoor wear, and even ‘lifestyle dressing’ is becoming increasingly indistinguishable, and that the product categories will continue to merge, while consumers’ expectations for improved product performance attributes will become the norm (Just Style, 2015). Product performance attributes encompass consumers’ expectations for comfort (fit and tactile), durability, optimal movement, thermal balance, and protection as well as a garment’s general capacity to enhance and extend one’s capabilities for physical activity (Kosmas, 2013; Shishoo, 2015). In response to these expectations, and as a way to differentiate themselves from competitors, outdoor apparel companies are striving to introduce new textile technologies each season; the use of high-performance textiles (e.g., durable waterproof (DWR) fabrics, synthetic insulations, waterproof-breathable membranes, anti-odor fibers/finishes, UV protection fibers/finishes) are becoming

more common in the design and development of outdoor apparel products. Companies are allocating millions of dollars to develop new innovations and technologies that are accompanied by sub-brand stories and patents (Just Style, 2015), which provides exclusive use of advanced technology to a specific company that is then only available through that company's products.

New competitors in the outdoor wear market also appear to be following the lead of more established companies through the evolution of their core values, specifically values related to sustainability. For example, Nike's stated mission is "to bring inspiration and innovation to every athlete in the world" whereas Patagonia's stated mission is to "build the best product, cause no unnecessary harm, use business to inspire and implement solutions to the environmental crisis." (Calkins, 2016; ISPO, 2017; Patagonia, n.d.a), which may suggest, that Nike was not founded on the same values as Patagonia. Recently, however, both companies have received recognition for their use of new technologies as well as for their efforts in sustainable innovation throughout their product development and production processes. For example, Nike and Patagonia both received the 2017 Accenture Strategy Award for Circular Economy at the WEF (World Economic Forum), an award that recognizes companies that drive innovation and growth while reducing dependence on scarce natural resources. Nike's recognition is attributed to its efforts in material efficiency and waste reduction with the goal of doubling its business and halving its environmental impact (ISPO, 2017) as well as to its sustainability campaign that involves product innovation, recycled materials, and collaboration with the Massachusetts Institute of Technology (MIT) Climate CoLab (Nike News, 2015). The MIT Climate CoLab is committed to helping Nike achieve 100 percent renewable energy in its company-owned-and-operated facilities by 2025 (Nike News, 2015). Patagonia's recognition is attributed to its philanthropy, including gifting one percent of sales to the preservation and restoration of the natural

environment (Adamson, 2015), its commitment to the use of responsibly sourced and recycled materials (Patagonia, n.d.b), and its reputation for sustainable innovation in the industry (ISPO, 2017). Along with Patagonia and Nike, companies such as The North Face, Prana, Nau, Icebreaker, Ternua, and Vaude have established brands that are synonymous with sustainability, transparency, and wellness, and in the process aligning their brands with the lifestyle and values of today's outdoor enthusiasts (Just Style, 2015). Further, apparel companies are being encouraged by the Outdoor Industry Association (OIA) to adopt sustainable supply chain best practices and assessment tools, including the Higg Index – an apparel and footwear industry 'self-assessment' standard for measuring environmental and social sustainability throughout the supply chain (Outdoor Industry Association, 2015).

Building upon the functional attribute of clothing, which refers to the capacity of clothing to deliver a pre-defined functionality to the user, *over and above* its normal functions (Gupta, 2011), another differentiation strategy that is starting to gain attention among outdoor apparel companies is the development of transformational apparel products. Transformational apparel products include all textile-based products that function as wearable apparel items, but also provide a purpose or meet a need that extends beyond the normal expectations and functions of the traditional apparel items. Two terms that are synonymous with transformational apparel are 'apparel adaptability,' and 'design adaptability.' Apparel adaptability refers to a product's ability to be manipulated in an unusual way by the wearer to create a product with different functions or usages and design adaptability refers to a product's ability to be adapted for multiple uses and to exhibit more than the product's traditional design capabilities (Cao et al., 2014). Thus, transformational apparel products that are classified as high-performance outdoor wear, would include products that meet consumers' expectations for apparel performance and function, while

also providing the ‘adaptability’ that allows a product to be manipulated to create a product to provide other functions or usages. The inherent value of transformational outdoor apparel to consumers—its ability to fulfill multiple product functions—is multiplied by creating a more sustainable product and encouraging less consumption.

One group of consumers who may find value in transformational outdoor apparel is the Millennial generation or cohort, which includes individuals born between the years 1981 and 1997 (Bucic et al., 2012; Cone Communications, 2015; The Center for Generational Kinetics, 2016; Fry, 2016). This consumer cohort is of general interest to marketers because it currently represents the largest generation in the U.S. population and workforce (Fry, 2016) and it may be of particular interest to marketers of outdoor apparel because, collectively, these consumers are focused on experiences, adventures, and ‘togetherness’ (Fromm, 2014). Millennial consumers are described as self-expressive, liberal, receptive to new ideas and ways of living, and more engaged in the consumption process than are non-Millennials (Main, 2017; Barton, Fromm, & Egan, 2012). Millennial consumers also frequently purchase green products, recycle used goods, and demonstrate interest in a company’s social and environmental commitment when purchasing goods; and 73% of Millennial consumers worldwide are willing to spend more money on a product from a sustainable (vs. non-sustainable) brand (Cone Communications, 2015; Landrum, 2017; Pew Research Center, 2012). Additionally, Millennial consumers often enjoy the search for something exotic, adventuresome, memorable, or new with respect to their travel, dining, or shopping experiences (Solomon, 2014). Having come of age during a period of rapid innovations in design, style, and technology, Millennial consumers frequently demonstrate an appreciation and expectation for ‘cutting-edge’ products and service and they value products and new technologies that serve a purpose or function (Millennial Marketing, 2017). Thus, market

research on Millennial consumers' preferences and behaviors suggests that, as a cohort, these consumers may be an ideal target market for companies that are promoting transformational apparel products.

### **Purpose of the Study**

The aim of the current study was to explore the effectiveness of product development and marketing strategies that focus upon the apparel attributes of functionality and sustainability within the increasingly competitive outdoor apparel industry. The specific purpose of this study was to examine how message framing around these product attributes may influence Millennial consumers' (a) attitudes toward advertisements, (b) attitudes toward brand, and (c) purchase intentions toward a transformational apparel product. The brand of interest in this study was Loki, a Colorado based outdoor clothing company that specializes in patented transformational clothing and accessories (Loki, 2015). The company offers a jacket design, the Loki Tak Shell, which includes the elements of a traditional jacket as well as a face shield, mittens in the jacket sleeves, and a lumbar pocket that transforms to a backpack.

### **Justification for the Study**

Researchers have examined consumer preferences for the functionality and sustainability of clothing in specific contexts, including outdoor and sport activities, but, to date, they have not explored consumer acceptance of transformational apparel for use in outdoor and sport activities.

## **Implications**

This research may have implications for both product developers and marketers of outdoor wear. Findings related to consumers' responses to advertisements for transformational apparel may help inform outdoor/active wear companies' decisions regarding the design and development of product features as well as the development and implementation of promotional strategies. Specifically, findings from this study may help inform marketers' decisions related to the application of message framing strategies in promotional communications for innovative apparel products targeted toward Millennial consumers.

## **Research Hypotheses**

1. Message framing will influence Millennial consumers' attitudes toward advertisements for a transformational textile product.
2. Attitudes toward advertisements will influence Millennial consumers' attitudes toward the Loki outdoor apparel brand.
- 3a. Attitudes toward brand, subjective norm, and perceived behavioral control will influence Millennial consumers' purchase intentions toward a transformational textile product.
- 3b. Engagement in outdoor activities, self-construal, product involvement, product knowledge, attitudes toward brand, subjective norm, and perceived behavioral control will influence Millennial consumers' purchase intentions toward a transformational textile product.

## CHAPTER II: LITERATURE REVIEW

This chapter includes an overview of academic and market research on functional clothing, with a focus on transformational apparel products. It also includes the review of research on consumer preferences for functional and sustainable apparel as well as research on Millennial consumers' social consciousness and consumption behavior. In addition, a conceptual model of message framing is presented to inform the development of the research method.

### **Functional Clothing**

Functional clothing is “a generic term that includes all such types of clothing or assemblies that are specifically engineered to deliver a pre-defined performance or functionality to the user, *over and above* its normal functions” (Gupta, 2011, p. 321). Functional clothing is created by purposefully incorporating innovative materials and ergonomic designs into garments in order to enhance the usefulness of the clothing beyond that of basic clothing. Ergonomically designed functional clothing maximizes the comfort and performance experienced by the wearer by decreasing the inhibitory effect clothing can have on movement and prioritizing performance over aesthetic considerations. Throughout the design and development process for functional clothing the social, psychological, and physiological requirements of the user are considered along with ergonomic concerns including, assembly methods, sizing, and fit. The desired type of functionality for individual products drives the integration of technology into the design of the clothing (Gupta, 2011).

Gupta (2011) established six classifications for functional clothing: protective-functional, medical-functional, sports-functional, vanity-functional, cross-functional assemblies, and

clothing for special needs. Protective-functional clothing includes garments designed to offer protection against extreme elements of nature, such as heat, cold, fire, rain, snow, dust, wind, or UV exposure. Medical-functional clothing includes garments designed to protect against lacerations as well as garments intended to provide pressure for lymphatic or venous disorders. Sports-functional clothing includes garments designed to increase the wearer's ability to perform during physical activity, reduce fatigue, and offer body shaping to reduce drag. Vanity-functional clothing includes garments designed to offer support and contouring through body shaping for an enhanced appearance. Cross-functional assemblies include all garments designed to provide the wearer with physical protection and/or life support (e.g., military gear, space suits, firefighter and rescue gear), whereas clothing for special needs includes garments designed specifically for groups of consumers with restricted abilities, such as elderly people, disabled people, and infants (Gupta, 2011).

In some instances, the design of functional clothing may involve the creation of convertible, multi-purpose/use products referred to as adaptable or transformational apparel in the academic literature. The design of transformational apparel involves the selection of materials (e.g., fabric, closures, etc.) and a construction approach that allows for the conversion from one unique item (i.e., distinct appearance and purpose) to another; thereby satisfying the functions of two or more products in a single item (Wang et al., 2014). Following Gupta's (2011) classifications for functional clothing, adaptable or transformational apparel may involve both protective-functional and sports-functional design principles (Wang et al., 2014).

### **Transformational Apparel**

To date, research on consumer behavior related to transformational apparel, including studies into consumer responses to the marketing of transformational apparel, is limited. A few

researchers (e.g., Cao et al., 2014; Wang et al., 2014), however, have explored consumers' acceptance of products that meet the definition of transformational apparel. For example, Cao et al. (2014) explored consumer perspectives on adaptable apparel (i.e., transformational apparel design) as a viable solution to excess consumption and as a way to improve environmental sustainability within the apparel industry. Employing the first three steps of the C2CAD model (i.e., problem definition and research, creative exploration, and implementation), the researchers designed two adaptable apparel prototypes and conducted focus groups and wear tests with female college students (N=10) to examine consumer acceptance of the prototypes. During the focus groups, participants were exposed to one of the two prototypes and given a brief explanation of the adaptable features of the prototype, after which they were asked to respond to open-ended questions about the prototype's appeal, features, and situational use. Next, participants were given information about industry-generated problems, including excess apparel consumption and negative environmental impacts, and asked to respond to open-ended questions pertaining to the participant's likely behavior related to their communication about and purchase of the prototype. Wear tests were conducted to evaluate participants' acceptance of the prototypes, with focus upon their perceptions of fit, comfort, and adaptability. Findings from the focus groups revealed that participants would likely purchase fewer apparel items if they owned adaptable apparel, and would likely retain and wear such apparel for an extended period of time; thereby providing some evidence that adaptable apparel may contribute to sustainable design solutions. Findings from the wear tests indicated that participants generally found the adaptable apparel to be comfortable and that apparel adaptations and conversions were easy and enjoyable to perform, although not all participants were able to manage the conversions without some instructions (Cao et al., 2014).

In a similar study, Wang et al. (2014) explored pattern transformation as a possible solution to the copious consumption of raw materials within the apparel industry. The researchers engaged in pattern transformation as a means by which to create multi-functional products and to assess consumer desirability for such products. Employing a ‘5Rs’ (Reduce, Reevaluate, Reuse, Recycle, Rescue) approach to design, the researchers developed computer-generated pattern pieces for two jackets (one women’s and one men’s) that when constructed into garments also would allow for joint conversion into a two-person tent. Through this process it was determined that the development of the jacket patterns required additional materials (i.e., extra zippers and fabric)—beyond what was needed for their own function—to ensure the transformation of the jackets into a tent. The researchers also determined that the design process for multi-functional products should be guided by similar environmental conditions for product use, shared fabric properties, and a similar planar structure relative to garment pattern pieces (i.e., lines, shapes and sizes of pattern pieces). An important finding of this study was that the design of multi-functional products has the potential to decrease the consumption of raw materials. Another important finding, based upon the researchers’ exploratory survey of consumers’ responses to the transformational products (N=474 college students), was a preference for multi-functional products over the five other main functional categories of modern clothing, protective function, decorative function, expressive function, aesthetic function, and health care function (Wang et al., 2014).

## **Consumer Response to the ‘Functionality’ & ‘Sustainability’ of Apparel**

As implied in the work of Cao et al. (2014) and Wang et al. (2014), transformational apparel offers the potential to contribute to the overall sustainability of clothing through the decreased consumption of raw materials and its multi-purpose end-use. Although the research conducted by Cao et al. (2014) and Wang et al. (2014) included a consumer survey component, the primary foci of these studies was the successful design of convertible, multi-purpose (i.e., functional) products. To date, researchers have not extensively explored consumer acceptance of transformational apparel; however, researchers have examined consumer preferences for the functionality and sustainability of clothing for specific contexts, including outdoor and/or sport activities.

Hossaini (2011), for example, explored customer needs for outdoor products (jackets, pants, shoes, etc.) to better inform the product design and development of outdoor clothing. He explained that clothing protects the wearer, defines a person’s role in a social group, and helps to express a person’s identity or to communicate a life-style, all factors that may influence consumers’ purchases of clothing, in general, as well as outdoor clothing, in particular. Other factors that may influence consumers’ purchases of outdoor clothing, as identified by Hossaini (2011), included price tolerance/affordability, durability, appearance/design (e.g., color, shape, style) fit, comfort, ease of care, functionality, protection against weather, and environmental friendliness. Hossaini (2011) posited that functionality and price may be the most decisive criteria for outdoor sportswear, but that appearance may also be an important consideration for some consumers. To explore the importance of these criteria, Hossaini (2011) surveyed 94 Swedish consumers to identify their needs and expectations for outdoor clothing, including needs for product quality as well as their consciousness about social, economic and environmental

sustainability. Data were purposefully collected at an event/market for outdoor products, which was deemed the best place to obtain opinions from outdoor clothing consumers. Participants rated fit, appearance, durability, and protection against weather as the most important product attributes for fulfillment (i.e., satisfaction), with some differences in fulfillment observed by age. Participants of all ages gave less importance to four criteria—environmentally disposable, easiness to repair, ‘eco’ or fair trade, and aftercare properties (Hossaini, 2011). Findings revealed that participants’ expectations and needs for outdoor clothing were dependent on the intended use for the clothing. For those participants who used outdoor clothing for diverse activities (e.g., hiking, fishing, skiing), the most important factor was protection against weather. For those participants who used outdoor clothing to wear around town, the most important factor was product appearance. Findings also revealed that ‘environmentally disposable’ was the least important factor in the decision to purchase outdoor clothing and that consumers often did not seek out environmental information about clothing if it is not provided by the manufacturer. However, Hossaini (2011) suggested that concern over the environmental impact of clothing may be growing among consumers, and thus the importance of this factor in the decision-making process should be investigated further.

### **Millennial Consumers**

The Millennial generation includes 86 million individuals born approximately between 1981 and 1997 (Bucic et al., 2012; Cone Communications, 2015; The Center for Generational Kinetics, 2016; Fry, 2016). Millennials are America’s most ethnically and racially diverse generation and they are less likely to conform to traditional lifestyles and values (e.g., they are less likely to be affiliated with a religion or a political party) than are members of other

generations (Cone Communications, 2015; Pew Research Center, 2010). They also are poised to become the most educated generation in U.S. history (Pew Research Center, 2010). Millennials are characterized as confident, optimistic, open-minded, self-expressive, and technology-savvy individuals; engaged consumers; and proponents of business and government institutions (Barton et al., 2012; Pew Research Center, 2010). As a cohort, Millennials have substantial purchasing power and are considered to be the most powerful consumer group in today's marketplace, collectively spending \$600 billion annually on goods and services. By the year 2020, Millennials will account for 50% of the U.S. workforce and one third of all retail sales will be attributed to this generation (Cone Communications, 2015; Bucic et al., 2012; Hill & Lee, 2012).

Market research also suggests that Millennials prefer brands and products that 'keep-up' with their multitasking way of life and that they value communal environments. For example, members of the Millennial generation tend to be health conscious and frequently use devices like the FitBit that sync with smartphones to track physical activity and calorie intake, and they frequently share their fitness progress with friends via social media (Fromm, 2014). Further, Millennials differ from other cohort groups in that they are more likely to participate in physical activity that is more focused on togetherness, such as group 'adventure' activities (e.g. rock climbing, white water rafting) rather than traditional, competitive sports. They tend to focus on the betterment of the group, and therefore enjoy participating in activities that support and recognize the achievement of the entire group, rather than activities that emphasize the achievement of the individual (Fromm, 2014).

### **Social Consciousness**

Market research suggests that, as a cohort, Millennial consumers tend to demonstrate a relatively high level of social consciousness, including socially responsible purchase behaviors.

For example, a study conducted by the Pew Research Center, offers evidence that more than 50% of Millennials buy green products, 7 in 10 recycle, and 36% buy organic food (2012). A more recent study conducted by Cone Communications (2015) revealed that 74% of Millennial consumers give consideration to a company's social and environmental commitment when purchasing goods. Millennials also are more willing to volunteer for a cause supported by a company they trust and to make personal sacrifices (paying more for a product, sharing products rather than buying, or taking a pay cut to work for a responsible company) than are members of other cohorts. Millennials spend an average of 18 hours a day consuming different types of media, and frequently communicate with companies and one another via social networks to learn about goods and services as well as CSR (Corporate Social Responsibility) initiatives (Cone Communications, 2015); using online networks to convey their own thoughts about social and environmental issues. Female Millennials (86%) are more likely to support CSR initiatives and to proactively seek or purchase "socially responsible" products than are male Millennials (76%); whereas male Millennials (18%) are more likely to feel that a company should be punished for its irresponsible behavior than are female Millennials (11%) (Cone Communications, 2015; Bucic et al., 2012).

Although market research suggests that, as a cohort, Millennials are informed consumers whose purchase decisions may be influenced by environmental and social considerations, academic research does not provide a clear understanding of how these considerations may affect their apparel purchases. For example, findings from one study suggest that 50% of college students are knowledgeable about general environmental issues as well as about socially responsible practices related to the production and consumption of apparel (Kozar & Connell 2010). In contrast, Hill and Lee (2012) discovered a positive sentiment toward sustainability, in

general, but low levels of knowledge about sustainability in the apparel industry, in particular, among college students. Brosdahl and Carpenter (2010) examined the relationship among consumers' knowledge of the environmental impacts of textile and apparel production, concern for the environment, and consumption behavior for environmentally friendly textile and apparel products. Based upon a survey of 429 college students, the researchers discovered that knowledge of the environmental impacts of textile and apparel production did not influence this cohort's environmentally friendly consumption behavior; however, concern for the environment did positively influence their environmentally friendly consumption behavior. The researchers concluded that knowledge alone may not translate into behavior, but concern for the environment appears to serve as a mediator between knowledge and behavior (Brosdahl & Carpenter, 2010).

Bucic et al. (2012) also explored ethical consumption behavior among Millennials through a cross-cultural consumer survey of 1,178 participants (807 Australian participants and 371 Indonesian participants). The researchers investigated the attributes that influence Millennial consumers' cause-related purchase decisions, their motivations for making ethical purchases and whether motivations differed by the issue/charity and/or their awareness of issue/charity, and whether country of residence influences Millennials' ethical consumption decisions. Findings revealed that Australian consumers gave some consideration to whether a product purchase supported a charity and which charity it supported. Australian consumers rated price, convenience, and packaging to be the most significant factors in their purchase decisions whereas Indonesia consumers rated quality, brand, and convenience to be the most significant factors in their purchase decisions. Bucic et al. (2012) discovered that Australian and Indonesian Millennial consumers were at the same 'stage of change' with respect to cause-related purchasing, which was the stage of 'beginning to take action' in regard to awareness of and

concern for the social causes, and that 20-30% of participants were willing to purchase ethical products once a month. The researchers concluded that the Millennial cohort is comprised of multiple subgroups that differ in their levels of awareness of ethical issues, are motivated by different motives when making consumption decisions, and vary in their willingness to engage in cause-related purchasing (Bucic et al., 2012).

### **Consumption Behavior**

Although Millennials are considered to be globally aware and are concerned about environmental and social issues (Hill & Lee, 2012), they also are considered to be a consumption oriented generation (Bucic et al., 2012). Millennials are more engaged in the consumption process than are non-Millennials when it comes to rating products and services, uploading videos, and posting online blog entries, and are more likely than non-Millennials to favor brands that have Facebook pages and mobile websites (Barton et al., 2012). Millennials also tend to utilize multiple sources of information to inform their purchase decisions and tend to trust the firsthand experience of actual brand/product users (preferably a peer or close friend) over brand representatives or product experts (Barton et al., 2012). The Millennial generation is interested in fashion, music, sports and exercise, and media and technology (Cone Communications, 2015; Stevens, Lathrop, & Bradish, 2005; Hill & Lee, 2012). Millennial consumers exercise more than do members of other cohorts, fifty percent exercised over a 24 hour period compared to members of the Gen X (48%), Baby Boomer (42%), and Silent (39%) generations, and they watch less TV than do members of the Gen X, Baby Boomer, and Silent generations (Pew Research Center, 2012).

The ability to successfully market to the Millennial generation may be highly profitable for consumer goods companies (Stevens et al., 2005); however, marketers have experienced

difficulty in effectively communicating with members of this generation (Bucic et al., 2012). Although each segment of the Millennial generation is unique, Millennials, in general, do not see advertising as an effective communication channel (11% vs. 17% U.S. average for other cohorts). They are more likely than are older consumers to utilize social media (18% vs 12% U.S. average) and product packaging as valuable resources for product and socially-responsible brand information (19% vs. 18% U.S. average) (Cone Communications, 2015).

### **Message Framing – Empirical Research**

There is a considerable body of research exploring the impact of message framing in advertising and promotion on consumer attitudes and behaviors. Some of this work has focused specifically on message framing as it pertains to consumer acceptance of sustainable (i.e., eco, environmentally-friendly, green) goods and services, and selected studies also have examined the influence of environmental concern on consumer responses to promotional messages (e.g., Bickart and Ruth, 2012; Newman, Howlett, Burton, Kozup, & Tangari, 2012)

For example, Newman et al. (2012) explored the moderating influence of message framing in policy-oriented advertisements on consumers' concern about global climate change as it relates to sustainable consumption. In the first study, the researchers employed a 2 x 2 experimental design (advertising message frame: negative vs. positive x subjective concern: high vs. low) to explore the moderating influences of positive and negative framing on consumer behavior intentions. Findings from this study indicated that when consumers' concern about global climate change was high, the type of message framing (positive vs. negative) did not affect consumers' intentions. When consumer concern about global climate change was low, however, the negatively framed message had a more favorable influence on consumers'

intentions toward sustainable consumption and their support for associated public policies than did the positively framed message. In the second study, the researchers also employed a 2x2 experimental design (regulatory focus: promotion vs prevention x subjective concern: high vs low) to investigate differences in the influence of promotion versus prevention message framing on consumers' likelihood to live more sustainably and buy environmentally friendly products. Findings revealed that when consumers' concern about global climate change was low, prevention messages were more persuasive than were promotion messages; whereas when subjective concern was high, framing had little influence on consumers' likelihood to live more sustainably and buy environmentally friendly products (Newman et al., 2012). Similarly, Bickart and Ruth (2012) found differences in consumers' responses to sustainable product messages (i.e., eco-seals) from varying message sources (company vs. government) by level of environmental concern. Consumers with low levels of environmental concern demonstrated more favorable attitudes toward the advertisement when the eco-seal was from a government (vs. company) source; however, eco-seal source did not affect the attitudes toward the advertisement among consumers with high levels of environmental concern.

White, MacDonnell, and Dahl (2011) conducted multiple studies to explore the influence of loss and gain framing featured in promotional materials on an individual's likelihood to recycle. The form of promotion examined was printed materials designed to hang over door handles. Findings from the first study—an observational field study—revealed that message frame (loss vs. gain) in conjunction with an individual's mind-set (abstract thinking 'why' vs. concrete thinking 'how') influenced consumers' recycling behaviors. Specifically, loss frames were more effective in influencing recycling behaviors when paired with a mind-set that engages low-level, concrete thinking, whereas gain frames were more effective in influencing recycling

behaviors when paired with a mind-set that engages high-level, abstract thinking. Findings from the second and third studies, which were conducted in a laboratory setting, provided additional evidence of the relationship between message framing and mind-set. Findings revealed that a negative-loss framed message paired with a concrete mind-set generated strong consumer recycling intentions and behaviors, and that a positive-gain framed message paired with an abstract mind-set also produced positive recycling intentions and behaviors (White et al., 2011).

Olsen, Slotegraaf, and Chandukala (2014) analyzed secondary data obtained from multiple sources to investigate the moderating effects of message framing on brand attitude in relation to the introduction of new green products. The researchers examined the influence of both quantity (i.e., the number of claims used to communicate a message) and valence (i.e., positive or negative) of message framing on brand attitude. Findings revealed that the quantity of green messages (number of claims made) associated with the introduction of new, green products had a negative effect on change in brand attitude, whereas the valence of framing did not influence consumers' brand attitudes.

### **Framing Clothing as Sustainable or Environmentally-Friendly**

Researchers also have examined the impact of pro-environmental messages in the promotion of clothing and outdoor gear (e.g., advertisements, product hang tags, store design, etc.) on consumers' attitudes and purchase intentions (e.g., Hill & Lee, 2012; Hyllegard, Ogle & Yan, 2014; Hyllegard, Yan, Ogle, & Lee, 2012; Ogle, Hyllegard, & Dunbar, 2004; Phau & Ong, 2007; Yan, Hyllegard, & Blasei, 2012). For example, Ogle, Hyllegard, and Dunbar (2004) researched the integration of sustainable design principles and practices (i.e., store atmospherics) at Recreational Equipment Inc.'s (REI), Denver Flag Ship store, and examined the impact of these store atmospherics on consumer patronage intentions. A survey of 186 patrons revealed

that store atmospherics (i.e., the use of natural daylight, the inclusion of in-store shops such as cafés, the use of sustainable building and landscape design, sustainable interior materials and finishes, and the incorporation of historic preservation principles) predicted store patronage intentions toward the REI Denver store, in particular, as well as toward the REI brand, in general (Ogle et al., 2004).

Phau and Ong (2007) investigated three types of message claims (i.e., environmental cause donation appeal – % contribution to cause, environmental correctness claim – garment hangtags made of recycled paper, and environmental correctness claim – t-shirt made of organic cotton) on consumer perceptions of a respected “green” brand and a neutral brand. A survey of 380 consumers revealed that all environmental message claims were perceived as more credible when they were attributed to a green brand than when they were attributed to neutral brand. Consumers assessed communications describing a product’s environmental correctness to be more credible than they did communications describing corporate donations to environmental causes. Consumers also responded more positively to product-related messaging than they did to cause-related messaging (Phau & Ong, 2007).

Yan et al. (2012) investigated the influence of brand name, message explicitness, and other variables on college students’ attitudes toward advertisement, attitudes toward brand, and purchase intentions. A survey in the form of a written questionnaire with a 2x2 experimental design component was used to collect data from 343 college students. Findings indicated that college students who viewed the advertisement featuring an explicit message about environmentally friendly products reported more positive attitudes toward the apparel brand than did those who viewed the advertisement featuring an implicit message. Although message explicitness influenced college students’ attitudes toward the brand, brand name did not

influence their attitudes toward the brand. Results from a multiple regression analysis revealed that attitudes toward brand, subjective norm, attitudes toward advertisement, eco-fashion involvement, and environmental commitment were strong predictors of college students' intentions to purchase an environmentally friendly apparel brand (Yan et al., 2012).

Hyllegard et al. (2012) explored consumer response to socially responsible business claims—environmentally friendly and fair labor messages—featured on apparel hang tags. A total of 763 adult consumers responded to an online survey that included a 2x2x2 experimental design to examine the impact of message content (eco-fashion vs. fair labor), message explicitness (low vs. high) and third-party SR (external credibility) logo (absence vs. presence) on consumers' attitudes and purchase intentions toward a fictitious apparel brand. Findings revealed that 61% of participants read hang tags on a frequent or very frequent basis when shopping for clothing. Findings also revealed that the use of explicit messages and logos elicited more positive favorable evaluations of hang tags, which, in turn, elicited more favorable attitudes toward the apparel brand (Hyllegard et al., 2012).

In a later study, Hyllegard et al. (2014) investigated prosocial marketing claims featured on hangtags attached to university branded apparel. Sixty percent, of the college students who completed the survey, reported that they read apparel hang tags frequently or very frequently. Findings revealed that students responded more positively to hang tags that featured prosocial marketing claims as compared to ones that did not. The specific content of a prosocial marketing claim (i.e., environmentally friendly materials and processes, fair labor practices, or donations to a cause) did not influence college students' evaluations of the apparel hang tags or their evaluations of the university-branded t-shirts. Evaluations of hang tags and evaluations of t-shirts positively predicted the amount of money that students were willing to pay for the university-

branded t-shirt, however. Results also revealed that female students were willing to pay more money for the t-shirt than were male students. The researchers concluded that companies may influence purchasing behaviors among niche markets by featuring prosocial marketing claims on apparel hang tags as at the point-of-purchase (i.e., in-store promotion).

### **Conceptual Framework**

An integrated conceptual framework, which included the model of Message Framing for Brand Communication (MFBC) (Tsai, 2007) and the Theory of Planned Behavior (Ajzen, 1991), informed the development of the present study. Together, these models provided a framework for examining consumers' responses to advertising messages for a transformational apparel product. Specifically, these models guided an analysis of the influence of message framing, and the constructs of self-construal, product involvement, and product knowledge, on consumers' attitudes toward advertisements, attitudes toward brand, and purchase intentions.

#### **Message Framing for Brand Communication (MFBC)**

Message framing is a communication strategy or execution technique derived from prospect theory (Kahneman & Tversky, 1979; Kahneman & Tversky, 1984). Kahneman and Tversky (1979) introduced prospect theory – a theory of choice under uncertainty – as an alternative to expected utility theory. The theory is built upon the notion that 'value' (rather than utility) is defined in terms of gains and losses (based upon a given reference point) rather than final assets and that an individual decision maker's choice between two alternatives depends upon how a choice is framed. In general, message framing refers to the manner in which a persuasive message is presented to an individual with respect to anticipated gains or losses that may be associated with a choice or action. Two types of message framing – goal framing and

attribute framing – are often employed to influence a decision maker’s choice in the context of consumer goods. Goal framing relates an action to the consequence of the action (or inaction) as either a gain or loss, that is, framing a choice in terms of the benefit (gain) associated with an action or the cost (loss) associated with an inaction. In goal framing, positively framed messages emphasize gains such as attaining a desirable outcome or avoiding an undesirable outcome, whereas negatively framed messages emphasize loss such as attaining an undesirable outcome or failing to attain a desirable outcome. There is some evidence to suggest that a negatively framed message, compared to a positively framed message, may have a stronger impact on an individual decision maker’s choice (i.e., behavior) (Akl et al., 2011). Attribute framing involves identifying a specific product attribute that is important or offers ‘value’ to the target customer and then communicating a positive versus negative description of the attribute (Akl et al., 2011; Gwin & Gwin, 2003). Value refers to the level of satisfaction that a consumer derives from using the product and, more specifically, the perceived benefit or worth that the attribute provides to the user. Understanding of the value of specific product attributes allows companies to differentiate their brands from other brands and to establish their brand position among competitors in the market (Gwin & Gwin, 2003).

The Message Framing for Brand Communication (MFBC) model proposed by Tsai (2007) includes three constructs—self-construal, product involvement, and product knowledge—that may moderate the persuasiveness of message framing. The premise of the model is that these three constructs provide fuller understanding of how and why the framing of advertising messages may influence consumers’ attitudes and behaviors, specifically: attitudes toward advertisements, attitudes toward brand, and purchase intentions. Markus and Kitayama (1991) identified two types of self-construal—*independent self-construal* and *interdependent self-*

construal. Independent self-construal involves defining the self with respect to attributes and traits that are personally unique and that distinguish one's self from others, whereas interdependent self-construal involves defining the self with respect to attributes and traits that are not personally unique and are not distinct from others (Tsai, 2007).

Product involvement refers to the personal relevance and perceived risk that a consumer assigns to a product or product category. Tsai (2007) argued, based upon findings from other research, that level of product involvement – high vs. low – is likely to influence consumer response to message framing. Specifically, positively framed messages that emphasize gains in the presence of a product are likely to be more persuasive with low-involvement consumers and negatively framed messages that emphasize losses in the absence of a product are likely to be more persuasive with high-involvement consumers (Tsai, 2007).

Consumer knowledge of a product or brand also may influence an individual's interpretation of marketing messages (Tsai, 2007). Product (or brand) knowledge refers to the amount of product information and/or number of product experiences that an individual accumulates over time and includes mental and behavioral knowledge. Individuals who possess high product knowledge are generally less responsive to message framing than are individuals who possess low product knowledge, especially in instances when the message does not provide substantive content that extends one's own experience.

Findings from Tsai's (2007) empirical study provide evidence that self-construal, product involvement, and product knowledge moderate the persuasiveness of message framing. A 2x2x2x2 experimental design that involved the manipulation of message framing (positive vs. negative), self-construal (independent vs. interdependent), product involvement (high vs. low) and product knowledge (high vs. low) supported the hypothesis that these variables moderate the

influence of message framing on consumers' attitudes toward advertisements, attitudes toward brand, and purchase intentions. Positive message framing was most persuasive when individuals demonstrated independent self-construal x low product involvement x low product knowledge; whereas negative message framing was most persuasive when individuals demonstrated interdependent self-construal x high product involvement x low product knowledge (Tsai, 2007).

### **Theory of Planned Behavior**

Much of the work examining advertising effects upon consumers' patronage intentions builds upon Ajzen's (1991) Theory of Planned Behavior, which suggests that human behavior is predicted by an individual's stated intention to behave in a given way. According to the theory, behavioral intention is predicted by an individual's attitude toward a given behavior, subjective norm (i.e., his/her perception of the desirability of the behaviors to important others), and perceived behavioral control. This relationship is expressed as:

$$BI = A + SN + PBC$$

where BI denotes behavioral intention, A denotes attitudes toward the behavior, SN denotes subjective norm, and PBC denotes perceived behavioral control.

Attitude toward the behavior is the summed product of belief strength ( $b$ ) and belief evaluation ( $e$ ). Belief strength is the extent to which an individual believes that a behavior or its outcome is true or probable, whereas belief evaluation is the importance that an individual assigns to the belief. To calculate attitude, belief strength and belief evaluation for each belief item are multiplied and then these products are summed across the  $n$  salient beliefs.

$$A \propto \sum_{i=1}^n b_i e_i$$

Subjective norm (SN) is the summed product of normative belief ( $n$ ) and motivation to comply with others ( $m$ ). Normative belief refers to an individual's perceptions about what

‘important’ others think or believe, whereas motivation to comply refers to the extent to which an individual wants to do what others think that he/she should do. To calculate subjective norm, the strength of each normative belief is multiplied by the individual’s motivation to comply and then these products are summed across the  $n$  salient referents:

$$SN \propto \sum_{i=1}^n n_i m_i$$

Perceived behavioral control is the extent to which an individual evaluates the perceived ease or difficulty of performing the behavior in question. To calculate perceived behavioral control, each control belief ( $c$ ) is multiplied by the perceived power ( $p$ ) of the particular control factor to enable or impede the behavior, and then these products are summed across the  $n$  salient control beliefs:

$$PBC \propto \sum_{i=1}^n c_i p_i$$

## CHAPTER III: METHODS

### **Data Collection**

An online survey was employed to gather information about consumers' behaviors related to environmental commitment as well as their responses to advertisements for transformational outdoor apparel. The survey included a written questionnaire as well as an experimental design component. The questionnaire included measures of consumer characteristics, attitudes, and behaviors as well as demographic items including gender, age, ethnicity/race, education level, participation in outdoor activities, lifestyle description, club/organization affiliation, occupation and annual income (see Appendix 1). The model of Message Framing for Brand Communication (MFBC) (Tsai, 2007) and the Theory of Planned Behavior (Ajzen, 1991) informed the selection of independent and dependent variables. The independent variables of interest in this study included outdoor participation, environmental commitment, self-construal, product involvement, product knowledge, and message framing. The dependent variables were consumers' attitudes toward advertisement, attitudes toward brand, and purchase intentions toward a transformational apparel product. The experimental design component of the survey examined the role message framing (i.e., the manipulation of messages about product functionality and sustainability) on Millennial consumers' attitudes toward advertisements for a transformational apparel product.

### **Questionnaire**

To address the three hypotheses developed for this study, the questionnaire contained ten, multi-item measures designed to assess consumers' outdoor participation, environmental commitment, self-construal, product involvement, product knowledge, attitude toward

advertisement, attitude toward brand, subjective norm, perceived behavioral control, and behavioral intention.

**Outdoor participation.** An individual's outdoor participation, or engagement in outdoor activities, was assessed in terms of three behaviors. The first behavior was the "frequency in which the individual participates in various outdoor activities." The second was the "individual's self-described lifestyle: competitive athlete, avid outdoor enthusiast, recreational participant, or non-regular participant in outdoor activities/sports." The third behavior was the "individual's membership in an outdoor club or organization."

**Environmental commitment.** The Kim and Damhorst (1999) environmental commitment scale (as modified by Ogle et al., 2004) was used to measure individuals' actions related to their personal environmental commitment. For the present study, four other items specific to clothing: "Purchase sustainable clothing", "Purchase used or upcycled clothing", "Rent clothing/accessories for personal use", and "Discard clothing in a responsible manner" were added to this scale to more fully assess the behaviors of today's outdoor-enthusiast consumer. As such, this scale included a total of 15 items presented in statement form allowing respondents to indicate their level of agreement on a 7-point scale, with endpoints 1='never' and 7='always.' See Appendix A to view the full scale.

**Self-construal.** Tsai's (2007) scale for measuring independent and interdependent self-construal was modified for use in this study. Independent self-construal was measured using five items on a 7-point scale with endpoints 'strongly agree' and 'strongly disagree'. The five items were: "I should be judged on my own merits;" "I prefer to be self-reliant rather than to depend on others;" "I take responsibility for my own actions;" "Being able to take care of myself is a primary concern for me;" and "I enjoy being unique and different from others." Interdependent

self-construal also was measured using five items on a 7-point scale with endpoints ‘strongly agree’ and ‘strongly disagree’. The five items that were used to measure interdependent self-construal were: “I consult others before making important decisions;” “I respect decisions made by my group;” “I depend on others to help me solve difficult problems;” “I try to abide by customs and conventions;” and “I care a lot about what others think of me.”

**Product involvement.** Product involvement was measured using four items from Lastovicka and Gardner (1979) and three items from Jain and Srinivasan (1990). The first four items began with the lead “Outdoor apparel...” followed by: “is a product that I could talk about for a long time;” “is a product that I understand the features of well enough to evaluate products/brands;” “is a product that helps me attain the lifestyle I strive for;” and “allows me to make connections between life experiences and product use.” The next three items began with the phrase “When purchasing outdoor apparel items...” followed by: “it is not a big deal if I make a mistake in my selection;” “I never know if I am making the right selection;” and “I am certain of my selection.” These items were measured on a 7-point scale with endpoints ‘strongly agree’ and ‘strongly disagree.’

**Product knowledge.** Product knowledge was measured on a nine item, 7-point scale with endpoints ‘strongly agree’ and ‘strongly disagree.’ This scale represented a modification of the scales developed by Sambandam and Lord (1995) and Flynn and Goldsmith (1999). The items included: “Compared to the average person, I know a lot about outdoor apparel;” “I feel quite knowledgeable about outdoor apparel;” “Among my circle of friends, I’m one of the “experts” on outdoor apparel;” “I rarely come across a piece of outdoor apparel I haven’t heard of;” “I know pretty much everything about outdoor apparel;” “I do not feel very knowledgeable about outdoor apparel;” “Compared to most other people, I know less about outdoor apparel;” “When

it comes to outdoor apparel, I really don't know a lot;" and "I have heard of most of the new pieces of outdoor apparel that are around."

**Attitudes toward advertisement.** Seven items that included: "This ad is believable;" "This ad is useful;" "This ad is informative;" "The meaning in this ad is clear;" "This ad is likable;" "This ad is convincing" were presented on a 7-point scale to measure attitude toward advertisement with the endpoints 'strongly agree' and 'strongly disagree' (Holmes & Crocker, 1987; Neese & Taylor, 1994).

**Attitudes toward brand.** To assess attitude toward brand, one four-item scale was used to measure belief strength and another four-item scale was used to measure belief evaluation. To calculate attitude toward the brand, scores for belief strength and belief evaluation for each belief item were multiplied and then summed across the  $n$  salient beliefs. All items included in these scales were measured on a 7-point scale, with endpoints 1='strongly disagree' and 7='strongly agree'. The items began with the brand name "Loki..." followed by: "creates durable, quality goods;" "promotes environmentally conscious behaviors;" "is inventive with its design, constantly pushing for lighter and better gear;" "protects you from the elements." The belief evaluation scale presented the same statements, however the brand name "Loki" was replaced with the phrase "It is important for an outdoor apparel company to..."

**Subjective norm.** Following Ajzen's (1991) approach, subjective norm was calculated as the summed product of normative belief and motivation to comply with others. Five items were used to assess normative belief on a 7-point scale with endpoints 'I should not' and 'I should'. The items included in this measure were: "Most people who are important to me think I should..." followed by: "be concerned about environmental conservation;" "be concerned about over consumption;" "be concerned about supporting companies that design apparel that can serve

more than one function;” “be concerned about supporting the use of recycled material in apparel design;” and “be concerned about natural environment education.” Motivation to comply, the second component of subjective norm, was measured using a single item that asked participants to indicate “Generally speaking, how much do you want to do what other people who are important to you think you should do?” Motivation to comply was measured on a 7-point scale with endpoints 1=‘not at all’ and 7=‘very much.’

**Perceived behavioral control.** Participants’ perceived difficulty or ease in purchasing the Loki garment was measured using four items on a 7-point scale, with endpoints 1=‘strongly disagree’ and 7=‘strongly agree.’ Two items were used to measure perceived power, which reflects an individual’s perception of how difficult it is to perform a behavior and the individual’s confidence in his/her ability to perform a behavior. The items were: “I am confident that I could purchase a Loki jacket;” “I expect that it will be easy for me to purchase a Loki jacket;” Two items also were used to measure control belief, which reflects an individual’s perception of whether performing the behavior is up to them or to factors beyond their control. The items were: “The decision to purchase a Loki jacket is beyond my control;” “Whether I purchase a Loki jacket or not is not entirely up to me.”

**Behavior intention.** Participants’ intentions to purchase (Ajzen 1991) transformational outdoor wear was assessed using six items measured on a 7-point scale, with endpoints 1=‘strongly disagree’ and 7=‘strongly agree.’ The items that were used to measure behavioral intention included: “I intend to learn more about outdoor wear that is designed to serve more than one purpose (i.e. a jacket that can be used as a backpack);” “I intend to purchase outdoor wear that is designed to serve more than one purpose (i.e. a jacket that can be used as a backpack);” “I intend to follow Loki on social media;” “I would visit the Loki physical or online

store;” “I would visit the Loki website to learn more about their products;” “I would purchase the Loki brand;” and “I would tell a friend about Loki.”

### **Experimental Design**

A 2x2 factorial between subject design was employed to measure the impact of message framing on Millennial consumers’ responses to print advertisements for transformational outdoor apparel. The experimental design involved the manipulation of message claims specific to two variables – product functionality (‘transformational apparel’ attribute vs. no ‘transformational apparel’ attribute) and product sustainability (positive vs. negative). The experimental design involved the creation of four print advertisements (i.e., stimuli) appropriate for an outdoor-oriented magazine (see Appendix 2). Additionally, one advertisement that did not include message claims about transformational attributes or sustainability was developed as a control stimulus. The imagery, color, brand name, logo and text design and placement remained constant across all advertisements. Each advertisement was presented in the form of a two-page magazine spread.

Advertisement #1 included information about the product’s transformational attribute and a positively-framed sustainable product claim. Advertisement #2 did not include information about the product’s transformational attribute, but included a positively-framed sustainable product claim. Advertisement #3 included information about the product’s transformational attribute and a negatively-framed sustainable product claim. Advertisement #4 did not include information about the product’s transformational attribute, but included a negatively-framed sustainable claim. The message claim addressing the product’s transformational attribute was explicitly stated its 4 in 1 features “*an adjustable hood, built in optional mittens, optional face*

*shield, and unique, zippered lumbar pocket that converts into a low profile day pack large enough to carry the shell itself, a bottle of water, keys, a wallet and other small items.”* (see Appendix 2). The positively-framed sustainable claim emphasized the possible gain from consumer decision-making, and was stated as: *“Much can be gained when we think about how our choices for outdoor wear may impact the environment. More than 15 million tons of used fabric/clothing waste is generated each year in the United States, and the amount has doubled over the last 20 years. The choice to recycle, repurpose, and/or purchase transformational apparel will decrease the total amount of clothing that ends up in landfills every year. Make the right choice for outdoor wear - the Loki Tak Shell.”* The negative sustainable claim emphasized the possible loss from consumer decision-making, and was stated as: *“Much can be lost when we don’t think about how our choices for outdoor wear may impact the environment. More than 15 million tons of used fabric/clothing waste is generated each year in the United States, and the amount has doubled over the last 20 years. The choice not to recycle, repurpose, and/or purchase transformational apparel will increase the total amount of clothing that ends up in landfills every year. Make the right choice for outdoor wear - the Loki Tak Shell.”*

Prior to administering the survey, a pilot test was conducted to examine Millennial consumers’ responses to the four advertising stimuli. All pilot test participants (N=46) viewed all four stimuli and repeated measures ANOVA was conducted to allow for the comparison of participants’ responses to each stimulus. Findings from the first repeated measures ANOVA revealed differences in participants’ perceptions of the information provided in the advertising stimuli (Wilks’ Lambda = .198,  $F_{(3,42)} = 56.76$ ,  $p \leq .001$ ). Paired sample t-tests were conducted to make post hoc comparisons between participants’ perceptions of advertising stimuli. Results indicated differences between the stimuli that featured transformational product information

( $M_{\text{stimuli \#1}} = 5.53$ ,  $M_{\text{stimuli \#3}} = 5.53$ ) and the stimuli that did not feature transformational product information ( $M_{\text{stimuli \#2}} = 2.57$ ,  $M_{\text{stimuli \#4}} = 2.84$ ). The first t-test revealed that participants' perceptions of the information provided in stimulus #1 differed from their perceptions of the information provided in stimulus #2 ( $t = 12.78$ ,  $p \leq .001$ ). The second t-test revealed that participants' perceptions of the information provided in stimulus #1 differed from their perceptions of the information provided in stimulus #4 ( $t = 10.72$ ,  $p \leq .001$ ). The third t-test revealed that participants' perceptions of the information provided in stimulus #3 differed from their perceptions of the information provided in stimulus #2 ( $t = 12.97$ ,  $p \leq .001$ ). The fourth t-test revealed that participants' perceptions of the information provided in stimulus #3 differed from their perceptions of the information provided in stimulus #4 ( $t = 10.61$ ,  $p \leq .001$ ).

Findings from the second repeated measures ANOVA revealed differences in participants' perceptions of the message framing (positive vs. negative) present in the advertising stimuli (Wilks' Lambda = .81,  $F_{(3,42)} = 3.29$ ,  $p \leq .05$ ). Again, paired sample t-tests were conducted to make post hoc comparisons between participants' perceptions of advertising stimuli. Results indicated differences between the stimuli that featured positively framed sustainable product messages ( $M_{\text{stimuli \#1}} = 5.45$ ,  $M_{\text{stimuli \#2}} = 5.54$ ) and the stimuli that featured negatively message framed sustainable product messages ( $M_{\text{stimuli \#3}} = 5.02$ ,  $M_{\text{stimuli \#4}} = 5.04$ ). The first t-test revealed that participants' perceptions of the message framing in stimulus #1 differed from their perceptions of the message framing in stimulus #3 ( $t = 2.42$ ,  $p \leq .05$ ). The second t-test revealed that participants' perceptions of the message framing in stimulus #1 differed from their perceptions of the message framing in stimulus #4 ( $t = 2.24$ ,  $p \leq .05$ ). The third t-test revealed that participants' perceptions of the message framing in stimulus #2 differed from their perceptions of the message framing in stimulus #3 ( $t = 2.87$ ,  $p \leq .01$ ). The fourth t-test

revealed that participants' perceptions of the message framing in stimulus #2 differed from their perceptions of the message framing in stimuli #4 ( $t = 2.68, p \leq .01$ ).

### **Sample**

Owing to Millennial consumers' reported interest in participating in outdoor physical activity, commitment to responsible consumption, and appreciation of innovation/interest in technology (Fromm, 2014; Cone Communications, 2015; Barton et al., 2012; Pew Research Center, 2010; Hill & Lee, 2012; Bucic et al., 2012), this cohort was identified as an appropriate population for the present study. For the purposes of this study, a Millennial consumer was defined as any individual born between the years 1981-1997 (Bucic et al., 2012; Cone Communications, 2015; The Center for Generational Kinetics, 2016; Fry, 2016). To establish the sample for this study, participants were recruited through convenience and snowball sampling methods. Convenience sampling was used by posting a link to the survey on the researcher's social media sites (i.e. Facebook, Instagram, and LinkedIn) and by distributing the link through personal email accounts. Snowball sampling was employed by asking friends and acquaintances of the researcher to recruit participants outside of the researcher's personal network. In addition, the services of the survey company Qualtrics were utilized to obtain additional male participants in order to increase the size of the sample and to achieve a more equal gender distribution within the sample. Data were collected from individual participants through their completion of the online survey.

## CHAPTER IV: RESULTS

The purpose of this study was to examine how message framing focused upon product functionality and sustainability and other variables influenced Millennial consumers' (a) attitudes toward advertisements, (b) attitudes toward brand, and (c) purchase intentions toward a transformational apparel product. Data were collected through an online survey administered by Qualtrics. The online survey was live for 59 days, during which 190 participants completed the survey. A total of 176 surveys were determined to be useable for this study. After the data collection was completed, multiple analyses, including descriptive statistics (i.e., frequencies, means), factor analyses, independent sample t-tests, one-way ANOVA, simple linear regression, and multiple linear regression were conducted to examine relationships among variables.

### **Sample Profile**

The final sample for this study included 176 Millennial consumers (seven participants were removed from the sample owing to a reported age/birth date that was not in the established range for the study and seven other participants were removed from the sample owing to incomplete questionnaires). The mean age of the sample was 29.9 years ( $SD=4.10$ ), and the age range was 21-37 years. Approximately forty-nine percent ( $n=86$ ) of the participants identified as male, fifty percent ( $n=89$ ) identified as female, and less than one percent ( $n=1$ ) identified as bi-gender, gender non-conforming, undecided, questioning, or other. Participants' self-reported levels of education were high school graduate (27%), vocation/technical school graduate (5%), college graduate (48%), and post-graduate degree (20%). The majority of the participants (99%) identified as U.S. residents and two participants (1%) identified as non-U.S. residents; one each

from Canada and the United Kingdom. Participants' self-reported ethnicities were Hispanic/Spanish/Mexican American (3.4%), Black/African American (9.7%), Asian (2.8%), and White/Caucasian (76.1%); the remaining 8% of the sample indicated 'other' or did not report ethnicity. With the exclusion of one outlier (\$500,000), the median income for the sample (N=99) was \$35,000 and the income range was \$0-\$500,000. See Table 1.

Table 1. Demographic Characteristics of Participants (N=176)

Characteristic	Frequency (n)	Range	Mean (SD)	Median
Age (N=176)		21-37	29.9 (4.10)	
Gender (N=176)				
Male	89			
Female	86			
Other	1			
Education (N=176)				
High school graduate	47			
Vocation/technical school graduate	9			
College graduate	84			
Post-graduate degree	36			
Ethnicity (N=176)				
Hispanic/Spanish/Mexican American	6			
Black/African American	17			
Asian	5			
White/Caucasian	134			
Other	4			
Did not report	10			
Income (N=99)		\$0 - \$500,000		\$35,000

## Preliminary Data Analysis

Factor analysis was used as a data reduction technique to verify the reliability of the variables and the cohesiveness of the multi-item scales. A minimum eigenvalue of 1.0 determined the number of factors extracted. Items loading equal to or greater than 0.60 on a given factor and less than or equal to 0.35 on other factors were retained to ensure unidimensionality; which falls within the norm for factor analysis (Matsunaga, 2010). Factor analyses are discussed here and reported in the following tables.

**Outdoor participation.** Engagement in outdoor activities was measured using 13 items on a seven-point Likert scale (1 = never, 4 = two or more times per month, and 7 = two or more times per week). Factor analysis of the outdoor participation variable revealed that three items did not meet the established criteria and they were removed from the outdoor participation measure. These items were: bicycling, backpacking/hiking, and camping. A composite score for the variable was developed based upon the remaining 10 items for further analysis. The Cronbach's *alpha* for this scale was 0.93. See Table 2.

Table 2. Factor Analysis for Outdoor Participation

Items	Factor Loading	Reliability	Cumulative %
Outdoor Participation		0.93	60.61
Canoeing	0.77		
Rock climbing	0.75		
Fishing	0.66		
Kayaking	0.74		
Mountaineering	0.84		
Rollerblading	0.77		
Skiing, cross-country	0.85		
Skiing, downhill	0.82		
Snowboarding	0.80		
Snowshoeing	0.77		

**Environmental commitment.** The variable environmental commitment was measured using 15 items on a seven-point Likert scale (1 = never, 7 = always). Owing to failure to meet the established criteria seven items were eliminated from the measure: “Recycle bottles, cans, or glass containers;” “Recycle newspapers;” “Contribute money to environmental groups;” “Cut down on auto exhaust by taking public transportation, car-pooling, biking, etc.,” “Purchase sustainable clothing (i.e. products made from organic cotton, non-toxic dyes, etc.);” “Rent clothing/accessories for personal use;” and “Discard clothing in a responsible manner (i.e., do not throw it away.” Results indicated that eight items emerged as one factor with acceptable levels of factor loading. A composite score for the variable was developed based upon the remaining eight items. The Cronbach’s *alpha* for this scale was 0.89. See Table 3.

Table 3. Factor Analysis for Environmental Commitment

Items	Factor Loading	Reliability	Cumulative %
Environmental Commitment		0.89	56.47
Avoid buying products from companies who are not environmentally responsible.	0.79		
Buy products made from or packaged in recycled materials.	0.85		
Buy products in refillable containers.	0.79		
Buy more durable goods rather than disposable goods.	0.80		
Buy in bulk or in large quantities.	0.70		
Buy energy efficient appliances.	0.70		
Follow water use restrictions.	0.69		
Purchase used or upcycled clothing.	0.67		

**Independent self-construal.** The measure for independent self-construal included five items measured on a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree). Analyses revealed a single factor with acceptable levels of factor loadings for independent self-construal. Thus, only one factor was utilized to measure independent self-construal. The Cronbach's *alpha* for this scale was 0.88. See Table 4.

Table 4. Factor Analysis for Independent Self-Construal

Items	Factor Loading	Reliability	Cumulative %
Independent Self-Construal		0.88	68.70
I should be judged on my own merits.	0.79		
I prefer to be self-reliant rather than depend on others.	0.88		
I take responsibility for my own actions.	0.87		
Being able to take care of myself is a primary concern for me.	0.86		
I enjoy being unique and different from others.	0.73		

**Interdependent self-construal.** Interdependent self-construal was measured with five items measured on a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree). The results indicated that the five items emerged as one factor with acceptable levels of factor loadings. The Cronbach's *alpha* for this scale was 0.80. See Table 5.

Table 5. Factor Analysis for Interdependent Self-Construal

Items	Factor Loading	Reliability	Cumulative %
Interdependent Self-Construal		0.80	56.41
I consult others before making important decisions.	0.82		
I respect decisions made by my group.	0.77		
I depend on others to help me solve difficult problems.	0.76		
I try to abide by customs and conventions.	0.67		
I care a lot about what others think of me.	0.73		

**Product involvement.** Product involvement was measured using seven items on a seven-point Likert scale (1 = strongly disagree and 7 = strongly agree). Factor analysis of product involvement revealed that two items did not meet the established criteria and they were removed from the measure. These items were: “When purchasing outdoor apparel items it is not a big deal if I make a mistake in my selection.” and “When purchasing outdoor apparel items I never know if I am making the right selection.” A composite score for the variable was developed based upon the remaining five items for further analysis. The Cronbach’s *alpha* for product involvement was 0.91. See Table 6.

Table 6. Factor Analysis for Product Involvement

Items	Factor Loading	Reliability	Cumulative %
Product Involvement Certainty		0.91	52.55
Outdoor apparel is a product that I could talk about for a long time.	0.84		
Outdoor apparel is a product that I understand the features of well enough to evaluate product/brands.	0.91		
Outdoor apparel is a product that helps me attain the lifestyle I strive for.	0.88		
Outdoor apparel allows me to make connections between life experiences and product use.	0.89		
When purchasing outdoor apparel items I am certain of my selection.	0.74		

**Product knowledge.** The variable product knowledge was analyzed with nine items measured on a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree). Factor analysis revealed two separate components for product knowledge; however the high cross-loadings for all items included in component or factor two necessitated that this factor should not be included in subsequent analyses. Additionally, one item “I know pretty much everything about outdoor apparel.” was eliminated from the first factor owing to cross-loading. A composite

score for the variable was developed based upon the remaining five items, which was used for further analysis. The Cronbach's *alpha* for this scale was 0.91. See Table 7.

Table 7. Factor Analysis for Product Knowledge

Items	Factor Loading	Reliability	Cumulative %
Product Knowledge		0.91	54.74
Compared to the average person, I know a lot about outdoor apparel.	0.81		
I feel quite knowledgeable about outdoor apparel.	0.88		
Among my circle of friends, I'm one of the "experts" on outdoor apparel.	0.87		
I rarely come across a piece of outdoor apparel I haven't heard of.	0.84		
I have heard of most of the new pieces of outdoor apparel that are around.	0.73		

**Attitude toward advertisement.** The variable attitude toward advertisement was analyzed using six items measured on a seven-point Likert scale (1 = strongly disagree, 7 = strongly agree). The results indicated that the five items emerged as one factor with acceptable levels of factor loadings. The Cronbach's *alpha* for this scale was 0.91. See Table 8.

Table 8. Factor Analysis for Attitude toward Advertisement

Items	Factor Loading	Reliability	Cumulative %
Attitude Toward Advertisement		0.91	70.62
This ad is believable.	0.81		
This ad is useful.	0.92		
This ad is informative.	0.80		
The meaning of this ad is clear.	0.88		
This ad is likable.	0.83		
This ad is convincing.	0.78		

**Attitude toward brand.** The variable attitude toward the brand was factor analyzed as two separate factors, belief strength and belief evaluation (i.e., importance of belief). Belief strength was measured using four items on a seven-point Likert scale (1 = never, 7 = always). Belief evaluation also was measured using four items on a seven-point Likert scale (1 = never, 7 = always). Results indicated that both factors emerged as a single factor with all items revealing acceptable levels of factor loadings. The Cronbach's *alpha* for the belief strength scale was 0.90 and the Cronbach's *alpha* for the belief evaluation scale was 0.93. See Table 9.

Table 9. Factor Analysis for Attitude toward Brand

Items	Factor Loading	Reliability	Cumulative %
Factor 1: Belief Strength		0.90	77.48
Loki creates durable, quality goods.	0.89		
Loki promotes environmentally conscious behavior.	0.85		
Loki is inventive with its design, constantly pushing for lighter and better gear.	0.91		
Loki creates products that protects the wearer form the elements.	0.87		
Factor 2: Belief Evaluation		0.93	82.74
It is important for an outdoor apparel company to create durable, quality goods.	0.92		
It is important for an outdoor apparel company to promote environmentally conscious behavior.	0.89		
It is important for an outdoor apparel company to be inventive with its design, constantly pushing for lighter and better gear.	0.90		
It is important for an outdoor apparel company to create products that protect the wearer from the elements.	0.93		

**Subjective norm.** The variable subjective norm was analyzed using five items that measured normative belief and one item that measured motivation to comply. The five normative belief items were measured on a seven-point Likert scale (1 = never, 7 = always). Results indicated that normative belief emerged as a single factor with all five items revealing acceptable levels of factor loadings. The Cronbach's *alpha* for this scale was 0.93. See Table 10.

Table 10. Factor Analysis for Subjective Norm

Items	Factor Loading	Reliability	Cumulative %
Subjective Norm – Normative Belief		0.93	77.48
Most people who are important to me think I should be concerned about environmental conservation.	0.91		
Most people who are important to me think I should be concerned about over consumption.	0.90		
Most people who are important to me think I should be concerned about supporting companies that design apparel that can serve more than one function.	0.86		
Most people who are important to me think I should be concerned about supporting the use of recycled material in apparel design.	0.89		
Most people who are important to me think I should be concerned about natural environment education.	0.86		

**Perceived behavioral control.** The variable perceived behavioral control was factor analyzed as two separate factors, control belief and perceived power. Both factors were measured using two items on a seven-point Likert scale (1 = never, 7 = always). Results indicated that both control belief and perceived power emerged as single factors with all items revealing acceptable levels of factor loadings. The Cronbach's *alpha* for the perceived power scale was 0.86 and the Cronbach's *alpha* for the control belief scale was 0.63. See Table 11.

Table 11. Factor Analysis for Perceived Behavioral Control

Items	Factor Loading	Reliability	Cumulative %
Factor 1: Perceived Power		0.86	87.52
I am confident that I could purchase this Loki jacket.	0.94		
I expect that it will be easy for me to purchase a Loki jacket.	0.94		
Factor 2: Control Belief		0.63	73.35
The decision to purchase a Loki jacket is beyond my control. <sup>1</sup>	0.86		
Whether I purchase the Loki jacket or not is not entirely up to me. <sup>1</sup>	0.86		

**Note:** Items denoted<sup>1</sup> = reverse coded.

**Behavior intention.** The variable behavioral intention was analyzed using seven items measured on a seven-point Likert scale (1 = never, 7 = always). Results indicated that normative belief emerged as a single factor with all seven items revealing acceptable levels of factor loadings. The Cronbach's *alpha* for this scale was 0.91. See Table 12.

Table 12. Factor Analysis for Perceived Behavioral Control

Items	Factor Loading	Reliability	Cumulative %
Behavioral Intention		0.91	65.82
I intend to learn more about outdoor war that is designed to serve more than one purpose (i.e., a jacket that can be used as a backpack).	0.77		
I intend to purchase outdoor wear that is designed to serve more than one purpose (i.e., a jacket that can be used as a backpack).	0.78		
I intend to follow Loki on social media.	0.71		
I would visit the Loki physical or online store.	0.87		
I would visit the Loki website to learn more about their products.	0.88		
I would purchase the Loki brand.	0.83		
I would tell a friend about Loki.	0.83		

Before conducting the analyses related to the hypotheses testing, some basic analyses were conducted to explore the influence of environmental commitment and gender on consumers' behaviors and attitudes. These analyses provide some support for previous studies that have explored the role of these factors in consumer decision-making as it relates to the purchase of sustainable products, including apparel.

### **Hypothesis Testing**

The first hypothesis addressed the influence of message framing on Millennial consumers' attitudes toward advertisements for a transformational textile product. Four treatment groups (i.e., exposure to advertisement #1, #2, #3, or #4) were established to conduct this analysis. Forty-five participants viewed advertisement #1 ( $M=31.38$ ), which included information about the product's transformational attribute and a positively-framed sustainable product claim. Forty-two participants viewed advertisement #2 ( $M=28.55$ ), which did not include information about the product's transformational attribute, but did include a positively-framed sustainable product claim. Forty-five participants viewed advertisement #3 ( $M=30.49$ ), which included information about the product's transformational attribute and a negatively-framed sustainable product claim. Forty-four participants viewed advertisement #4 ( $M=31.45$ ), which did not include information about the product's transformational attribute, but did include a negatively-framed sustainable claim. Results from a one-way ANOVA indicated that there was no difference between treatment group in consumers' attitudes toward the advertisements [ $F_{(3, 172)} = 1.54, p = .206$ ]; thus, H1 was not supported.

Simple linear regression analysis was conducted to explore the second hypothesis which considered the influence of consumers' attitudes toward advertisements for a transformational textile product on attitudes toward the Loki outdoor apparel brand. Results indicated that

attitudes toward the advertisements did influence attitudes toward brand [adj.  $R^2 = .463$ ),  $F_{(1, 169)} = 147.37, p \leq .001$ ;  $\beta = .683, t = 12.14, p \leq .001$ ]. Results provided support for H2.

Multiple linear regression was conducted to examine whether attitude toward brand, subjective norm, and perceived behavioral control influenced Millennial consumers' purchase intentions toward a transformational textile product (H3a). Results from the regression analysis revealed that the original model was significant [adj.  $R^2 = .22, t = 16.29, p \leq .001$ ]. Attitude toward brand ( $t = 4.49, p \leq .001$ ) and subjective norm ( $t = 3.14, p \leq .01$ ) influenced purchase intentions, but perceived behavioral control did not ( $t = -1.87, p = .064$ ). Thus, H3a was partially supported. See Table 14.

Next an analysis was conducted to explore whether variables external to the model of perceived behavioral control (extended model) might improve the explanatory power of the model. Specifically, owing to the performance and transformational nature of the product, one's participation in outdoor activities, self-construal, product involvement, product knowledge, and attitude toward advertisement were considered. Thus, multiple linear regression was conducted to examine whether engagement in outdoor activities, self-construal, product involvement, product knowledge, attitude toward advertisement, attitude toward brand, subjective norm, and perceived behavioral control influenced Millennial consumers' purchase intentions toward a transformational textile product (H3b). Results from the regression analysis revealed that the model was significant [adj.  $R^2 = .41$ ]. Attitude toward brand ( $t = 2.95, p \leq .004$ ), product knowledge ( $t = 4.00, p \leq .000$ ), interdependent self-construal ( $t = 2.21, p \leq .028$ ), and outdoor participation ( $t = 2.98, p \leq .003$ ) influenced participants' purchase intentions, but independent self-construal ( $t = -0.864, p = .389$ ), product involvement ( $t = -.0879, p = .381$ ), subjective norm

( $t = 1.073, p = .285$ ), and perceived behavioral control ( $t = -0.629, p = .530$ ) did not influence purchase intentions. Thus, H3b was partially supported. See Table 14.

Comparison of the classic and extended models was conducted by examining the significant difference in  $R^2$  between the two models. The F ratio was calculated using the following equation:

$$F = \frac{[R^2(\text{Model 2}) - R^2(\text{Model 1})]/[k_2 - k_1]}{[1 - R^2(\text{Model 2})]/[N - k_2 - 1]}$$

*d.f.* [k<sub>2</sub>-k<sub>1</sub>], [N-k<sub>2</sub>-1]

Note: k<sub>1</sub>= number of variables in Model 1, k<sub>2</sub>= number of variables in Model 2, and N= number of cases in the sample.

The analysis indicated that the added variables in the extended model did have additional explanatory power ( $F_{(8, 159)} = 11.9, p \leq .001$ ).

Table 13. Regression Models for Purchase Intentions (N=176)

Independent variables	B	SE	$\beta$	t	adj R <sup>2</sup>	R <sup>2</sup>
<b>Original model</b> (N = 168)					0.21	0.23***
Attitudes toward Brand	0.04	0.10	0.34	4.49***		
Subjective Norm	0.02	0.01	0.23	3.14**		
Perceived Behavioral Control	-0.02	0.01	-0.13	-1.87		
<b>Extended model</b> (N = 168)					0.41	0.44***
Attitudes toward Brand	0.03	0.01	0.23	2.86*		
Subjective Norm	0.01	0.01	0.08	1.09		
Perceived Behavioral Control	-0.01	0.01	-0.04	-0.60		
Outdoor Participation Score	0.03	0.01	0.20	2.80 **		
Independent Self-Construal	-0.02	0.02	-0.09	-1.15		
Interdependent Self-Construal	0.03	0.02	0.14	1.76		
Product Involvement	-0.02	0.10	0.02	0.15		
Product Knowledge	0.04	0.01	0.33	3.36 ***		

\*  $p \leq .05$ ; \*\*  $p \leq .01$ ; \*\*\*  $p \leq .001$

### **Influence of environmental commitment on involvement, knowledge, and attitudes.**

Simple linear regression analyses were conducted to explore the influence of environmental commitment on product involvement and product knowledge. Results indicated that consumers' environmental concern influenced both product involvement [adj. R<sup>2</sup> = .158),  $F_{(1, 174)} = 33.91, p \leq .001; \beta = .222, t = 5.82, p \leq .001$ ] and product knowledge [adj. R<sup>2</sup> = .034),  $F_{(1, 169)} = 7.14, p \leq .01; \beta = .189, t = 2.67, p \leq .01$ ]. Based upon prior studies that examined the influence of environmental concern on consumers' attitudes toward advertisements and brands with sustainable product message claims, simple linear regression analyses also were conducted to explore these relationships as well. Results indicated that environmental concern did influence

attitude toward advertisement [adj.  $R^2 = .044$ ),  $F_{(1, 174)} = 9.05, p \leq .01$ ;  $\beta = .222, t = 3.01, p \leq .01$ ] and attitude toward brand [adj.  $R^2 = .171$ ),  $F_{(1, 169)} = 36.04, p \leq .001$ ;  $\beta = .419, t = 6.00, p \leq .001$ ].

**Analyses of gender differences.** Independent t-tests were conducted to explore gender differences with regard to participation in outdoor activities, environmental commitment, self-construal, product involvement, product knowledge, attitude toward the advertisement, and attitude toward the brand. Male participants reported greater outdoor participation ( $M_m = 27.30, M_f = 23.67; t = 2.32, p \leq .05$ ), greater product involvement ( $M_m = 29.49, M_f = 27.17; t = 2.01, p \leq .05$ ), and greater product knowledge ( $M_m = 34.82, M_f = 27.70; t = 4.16, p \leq .001$ ), than did female participants; however, female participants reported greater environmental commitment ( $M_f = 71.86, M_m = 62.23; t = -2.44, p \leq .05$ ) than did male participants. Female participants also reported greater independent self-construal ( $M_f = 29.05, M_m = 26.52; t = -2.67, p \leq .01$ ) and greater interdependent self-construal ( $M_f = 24.95, M_m = 21.38; t = -4.23, p \leq .001$ ) than did males. Lastly, female participants reported more favorable attitudes toward the advertisement ( $M_f = 32.24, M_m = 28.66; t = -3.41, p \leq .001$ ) and more favorable attitudes toward the brand ( $M_f = 30.57, M_m = 25.51; t = -3.38, p \leq .001$ ) than did males. See Table 13.

Table 14. Independent T-test of Gender Differences (N=176)

Independent variables	Male		Female		F	t value
	n	mean	n	mean		
Outdoor Participation	87	27.30	88	23.63	7.37	2.32*
Environmental Commitment	87	62.23	88	71.86	3.97	-2.44*
Independent Self-Construal	87	26.52	88	29.05	23.61	-2.67**
Interdependent Self-Construal	87	21.38	88	24.95	12.89	-3.40***
Product Involvement	87	29.49	88	27.17	0.11	2.01*
Product Knowledge	87	34.82	88	27.70	2.09	4.16***
Attitude toward Advertisement	87	28.66	88	32.24	13.15	-3.41***
Attitude toward Brand	86	25.51	84	30.58	18.53	-3.38***

\*  $p \leq .05$ ; \*\*  $p \leq .01$ ; \*\*\*  $p \leq .001$

## CHAPTER V. DISCUSSION & CONCLUSION

This study examined the influence of message framing on Millennial consumers' attitudes toward advertisement, attitudes toward brand, and purchase intentions toward a transformational apparel product. There were three main objectives of this study. The first objective was to investigate the influence of message framing on Millennial consumers' attitudes toward advertisements. The second objective was to investigate the relationship between Millennial consumers' attitudes toward advertisements and Millennial consumers' attitudes toward the brand. The third objective was to investigate the influence of Millennial consumers' attitudes toward the brand, subjective norm, and perceived behavioral control on their purchase intentions. The third objective was expanded to include exploring the influence of attitude toward brand, subjective norm, and perceived behavioral control along with additional factors, including participation in outdoor activities, self-construal, product involvement, and product knowledge on Millennial consumers' purchase intentions. The relationships between the variables were examined using independent sample t-tests, one-way ANOVA, simple linear regression, and multiple linear regression. Findings from the data analyses are discussed in relation to each of the hypotheses and prior research findings.

**Hypothesis 1:** Message framing will influence Millennial consumers' attitudes toward advertisements for a transformational textile product.

Hypothesis 1 proposed that Millennial consumers' attitudes toward advertisements for a transformational textile product would be influenced by message framing. Although a pilot test designed to assess perceptions of message claims related to product functionality ('transformational apparel' attribute vs. no 'transformational apparel' attribute) and product

sustainability (positive vs. negative) revealed differences among participants in their perceptions of the advertising stimuli, results from the one-way ANOVA conducted with the survey data indicated that there were no difference in consumers' attitudes toward the advertisements [ $F_{(3, 172)} = 1.54, p = .206$ ] among treatment groups. This finding is not consistent with prior research (e.g., (Olsen et al., 2014; Phau & Ong, 2007; White et al., 2011; Yan et al., 2012) suggesting that message framing influences consumers' attitudes and behaviors.

**Hypothesis 2:** Attitudes toward advertisement will influence Millennial consumers' attitudes toward the Loki outdoor apparel brand.

Hypothesis 2 proposed that Millennial consumers' attitudes toward the Loki apparel brand would be influenced by their attitudes toward the advertisement. Consumers' attitudes toward the advertisement did influence their attitudes toward Loki brand. This finding is consistent with previous research (Hyllegard et al., 2012) suggesting that explicit messages about social responsibility may positively influence Millennial consumers' attitudes toward product brand; and this finding may be attributed to the explicit nature of the environmental marketing claim present in the advertising stimuli.

**Hypothesis 3a:** Attitude toward brand, subjective norm, and perceived behavioral control will influence Millennial consumers' purchase intentions toward a transformational textile product.

Attitude toward brand and subjective norm did influence Millennial consumer's purchase intentions; however, perceived behavioral control did not influence Millennial consumers' purchase intentions toward a transformational textile product. As such, findings from the multiple linear regression analysis did not fully support the model of perceived behavioral

control. Perceived behavioral control is the extent to which an individual evaluates the perceived ease or difficulty of performing the behavior in question (Ajzen's, 1991). Although the advertising stimuli included message claims related to product functionality ('transformational apparel' attribute vs. no 'transformational apparel' attribute) and product sustainability (positive vs. negative) it may be that other information, such as price, which was not explicitly stated within the advertising stimuli, may be more important to consumers with respect to determining the ease or difficulty of purchasing the Loki jacket.

**Hypothesis 3b:** Engagement in outdoor activities, self-construal, product involvement, product knowledge, attitude toward brand, subjective norm, and perceived behavioral control will influence Millennial consumers' purchase intention toward a transformational textile product.

Findings from the regression analysis revealed that Millennial consumers' purchase intentions toward transformational textile product were influenced by attitude toward brand, outdoor participation, and product knowledge, but not by subjective norm, perceived behavioral control, independent self-construal, interdependent self-construal, or product involvement. That Millennial consumers' purchase intentions were influenced by their outdoor participation and product knowledge is consistent with other research. For example, findings from a study by Hossaini (2012) revealed that an individual's intended use for an outdoor clothing item (e.g., outdoor activity) influences their expectations and needs for the outdoor clothing. As such, the level of outdoor participation may have influenced purchases intentions owing to participants' intended use of the apparel item. In addition, previous research suggests that Millennial consumers value product innovations that impact a product's performance and fit (Millennial Marketing, 2017; Just Style, 2015; Kosmas, 2013; Shishoo, 2015). Thus, knowledge of

innovations in a product's performance and fit, durability, optimal movement, thermal balance, or just a general capacity to enhance and extend one's capabilities for physical activity (Kosmas, 2013; Shishoo, 2015) would likely influence purchases intentions.

Owing to evidence that female Millennials are more likely to proactively seek or purchase "socially responsible" products than are male Millennials (Cone Communications, 2015; Bucic et al., 2012), additional analyses were conducted to examine gender differences with respect to participation in outdoor activities, environmental commitment, self-construal, attitudes toward the brand, and attitudes toward the advertisement. Female participants reported greater environmental commitment as well as more positive attitudes toward the advertisement and more positive attitudes toward the brand than did male participants. This finding is consistent with prior work suggesting that female consumers are likely to respond more positively to environmental or socially responsible messages than are male consumers. For example, female Millennials are more likely to support CSR initiatives and to proactively seek or purchase "socially responsible" products than are male Millennials (Cone Communications, 2015; Bucic et al., 2012). Likewise, Hyllegard et al. (2014) found that female students were willing to pay more money for a t-shirt featuring a prosocial marketing claims on apparel hang tags than were male students.

## **Implications**

Findings from the present study offer some practical implications for marketers in the outdoor apparel industry, as well as theoretical implications. First, because outdoor participation and product knowledge influenced participants' purchase intentions, product developers may want to consider how best to generate product knowledge among outdoor enthusiasts when releasing new, transformational products on the market. As outdoor wear companies incorporate new textile technologies (e.g., durable waterproof (DWR) fabrics, synthetic insulations, waterproof-breathable membranes, anti-odor fibers/finishes, UV protection fibers/finishes) into outdoor apparel, there may be an increased need for companies to educate consumers about the benefits of these technologies with respect to product function and performance. Furthermore, findings from this study revealed that Millennial consumers' attitudes toward brand were influenced by their attitude toward an advertisement for a transformational textile product, and that consumers' attitudes toward brand influenced their purchase intentions. These findings have implications for marketers regarding the importance of advertising content, specifically the inclusion of environmental and/or transformational product claims that may influence consumers' perceptions of outdoor apparel brands.

Second, findings offer marketing implications associated with gender. Male participants reported higher levels of outdoor participation, product involvement, and product knowledge than did females, suggesting that it may be beneficial for outdoor apparel marketers to target male audience with more sophisticated and explicit product claims. Specifically, marketers may want to focus on the technical product attributes with respect to outdoor apparel use, both product functionality and performance associated with outdoor activities such as hiking, camping, or mountain biking, in order to differentiate their products and brand from competitors.

Female participants reported greater environmental commitment, independent self-construal, interdependent self-construal, more favorable attitudes toward the advertisement, and more favorable attitudes toward the brand, than did male participants. As such, marketers may want to focus more on the sustainable (vs. technical) attributes of products when advertising outdoor apparel to female consumers. Although environmental commitment was not specifically addressed with a formal hypothesis, this variable has implications for marketers owing to its influence on purchase intentions.

This research also provides some theoretical implications related to the Theory of Planned Behavior and Message Framing for Brand Communication (MFBC). Analyses revealed that attitude toward brand and subjective norm influenced purchase intention, whereas perceived behavioral control did not influence purchase intention; therefore findings lend partial support to the Theory of Planned Behavior. Further analyses related to the extended model indicated that attitude toward brand, outdoor participation, and product knowledge influenced purchase intention toward a transformational textile product. Although this study examined the influence of product knowledge on behavior, whereas the traditional MFBC model posits that product knowledge moderates consumers' interpretation of brand message, the finding that product knowledge influenced purchase intention supports the MFBC model.

### **Limitations**

There are several limitations of the current study. One limitation is that multiple methods, including convenience sampling, snowball sampling, and targeting sampling (via Qualtrics), were employed to recruit participants for this study. First, the survey was distributed via email to the researcher's family and friend network; second, these individuals also were asked to share

the survey with their family and friend network survey; and third, to address the low response rate among potential male participants within the researcher's family and friend network, Qualtrics provided additional male participants, who were paid for their completion of the survey. The use of convenience sampling and snowball sampling methods likely resulted in a less diverse, and possibly bias, sample with respect to ethnicity education and socio-economic status owing to the researcher's friend and family network. The use of target sampling (i.e., paid participants via Qualtrics), which is limited to the overall diversity of the individuals recruited through the Qualtrics system, also may have limited the diversity of the sample in the present study.

Another possible limitation to this study may be the measure of perceived behavioral control. The reliabilities for the two factors in this scale (0.86 and 0.63) may be attributed to the limited items included in the scale. This study included two items to assess perceived power ("I am confident that I could purchase this Loki jacket." and "I expect that it will be easy for me to purchase a Loki jacket.") and two items to assess control belief ("The decision to purchase a Loki jacket is beyond my control." and "Whether I purchase the Loki jacket or not is not entirely up to me."). It is possible that if the scale included additional items, the reliabilities may have been greater, and thus, the influence of perceived behavioral control on purchase intentions may have been observed in the results from the regression analysis.

A third limitation of this study may be the choice of apparel brand. The decision to select the Loki brand was purposeful owing to Loki's limited distribution and brand recognition. However, a pretest was not conducted investigate participants' familiarity with and/or perceptions of the Loki brand prior to participants' exposure to the advertising stimuli the influence the logo may have on survey participants. It is possible that some participants' may

have had pre-established attitudes toward the Loki brand that influences their responses to survey questions.

### **Future Research**

After considering the implications and limitations of the current study there are a few suggestions for future research. The first suggestion would be for researchers to expand the distribution of the survey. Outdoor apparel brands may gain greater understanding of the consumer decision-making and purchase intentions from a more international survey distribution. For example, Bucic et al. (2012) found that Australian Millennial consumers rated price, convenience, and packaging to be the most significant factors in their purchase decisions, whereas Indonesia consumers rated quality, brand, and convenience to be the most significant factors in their purchase decisions. Therefore, the variables explored in this study may have less or more influence on international (vs. U.S.) consumers' purchase intentions for transformational outdoor apparel products. For example, in this study product knowledge influenced participants' purchase intentions, but other variables, such as environmental commitment, may have a greater influence on European consumers' purchase intentions for transformational outdoor apparel products.

The second suggestion for future research would be to further explore Millennial consumers' purchase intentions with regard to brand or product sustainability practices and price. Specifically, researchers may wish to include price information within the advertising stimuli to better understand the influence of that variable on consumers' purchase intentions. Cone Communications (2015), Landrum (2017), and Pew Research Center (2012) found that Millennial consumers worldwide are willing to spend more money on a product from a

sustainable brand. Owing to Millennial consumers' propensity to purchase green products, recycle used goods, and demonstrate interest in a company's environmental commitment when purchasing goods, this consumer group may be influenced by the inclusion of price information in advertising stimuli that focus upon the apparel attributes of functionality and sustainability (Cone Communications, 2015; Landrum, 2017; Pew Research Center, 2012).

The third suggestion for future research would be to explore the quality of the "green" or sustainable message. Olsen et al. (2014) findings suggest that the quality of a message may influence brand attitude. Additionally, the Outdoor Industry Association (OIA) has been encouraging apparel companies to adopt sustainable supply chain best practices and assessment tools. Therefore, in the future, researchers may want to explore the inclusion of a sustainable supply chain assessment tool scores, such as the Higg Index, within the environmental message framing advertising stimuli to increase the quality of the "green" or sustainable message (Outdoor Industry Association, 2015). Another suggestion for addressing the quality of the message would be to include consumer generated product ratings. Barton et al. (2012) discovered that, when it comes to influences on purchase decisions, Millennial consumers prefer firsthand product information or experiences from peers over product information from experts or brand representatives.

A fourth suggestion for future research would be to explore how gender differences and environmental commitment may influence attitudes and purchase intentions. Previous research (Cone Communications, 2015; Bucic, Harris, & Arli, 2012) and the findings from this study suggest that gender may influence environmental commitment, which, in turn, may influence purchase intentions for transformational outdoor apparel products.

The fifth suggestion for future research would be to further explore the relationship between product functionality ('transformational apparel' attribute vs. no 'transformational apparel' attribute) framing influence on consumers' attitude toward the advertisement for a transformational outdoor apparel product other than a jacket. Wang et al. (2014) explored the design feasibility for transformational jackets, but to date, researchers have not explored consumers' responses to other outdoor apparel items (i.e. pants, shirts, hats, etc.). In general, exploring consumer responses to transformational apparel is strongly recommended as there is limited research on consumers' preferences for and/or purchases of this type of apparel.

The final suggestion for future research would be to expand upon the current study by exploring consumers' responses to transformational apparel for more commonly recognized brands such as North Face, Marmot, or Patagonia. Bucic et al.'s (2012) findings indicated that for Indonesian consumers, brand, quality, and convenience were the most significant factors in their apparel purchase decisions. Although, findings from Yan et al.'s (2012) study revealed that brand name did not influence intentions to purchase an environmentally friendly apparel brand among college students, Tsai (2007) suggested that consumer knowledge of a product or brand may influence an individual's interpretation of marketing messages. Future studies with well-known apparel brands may provide greater insight into the influence of attitude toward brand and other variables on consumers' purchase intentions for transformational apparel.

## REFERENCES

- Adamson, A. (2015, May 26). Winning lessons from Nike, Patagonia and other marketing hall of famers. *Forbes*. Retrieved from <https://www.forbes.com/sites/allenadamson/2015/05/26/winning-lessons-from-nike-patagonia-and-other-marketing-hall-of-famers/2/#2c772493205f>
- Ajzen, I. (1991) Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50 (2), 179-211.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*, Englewood Cliffs, NJ: Prentice-Hall.
- Akl, E., Oxman, A., Gerrin, J., Vist, G., Terrenato, I., Sperati, F., Costiniuk, C., Blank, F., & Schunemann, H. (2011). *Framing of health information messages*. Hoboken, NJ: John Wiley & Sons, Ltd.
- Bain, M. (2017, January 23). Sportswear is carrying the global apparel industry. *Quartz*. Retrieved from <https://qz.com/889672/sportswear-is-carrying-the-global-apparel-industry/>
- Barton, C., Fromm, J., & Egan, C. (2012, April). The millennial consumers: Debunking stereotypes. *The Boston Consulting Group*. Retrieved from <https://www.bcg.com/documents/file103894.pdf>
- Bennett, J. (2014). The outdoor industry: An evolving market. *College Outside, Inc*. Retrieved from [https://s3.amazonaws.com/collegeoutsidemedia/partnermedia/The+Outdoor+Industry\\_An+Evolving+Market.pdf](https://s3.amazonaws.com/collegeoutsidemedia/partnermedia/The+Outdoor+Industry_An+Evolving+Market.pdf)

- Bickart, B. A., & Ruth, J. A. (2012). Green eco-seals and advertising persuasion. *Journal of Advertising*, 41(4), 51-67.
- Brosdahl, D. J., & Carpenter, J. M. (2010). Consumer knowledge of the environmental impacts of textile and apparel production, concern for the environment, and environmentally friendly consumption behavior. *Journal of Textile and Apparel, Technology and Management*, 6(4), 1-9.
- Bisht, P. (2015). Sports apparel market by end user (men, women, kids) and mode of sale (retail stores, supermarkets, brand outlets, discount stores, online stores) – global opportunity analysis and industry forecast, 2014 – 2020. *Allied Market Research*. Retrieved from <https://www.alliedmarketresearch.com/sports-apparel-market?sports-apparel-market>
- Bucic, T., Harris, J., & Arli, D. (2012). Ethical consumers among the Millennials: A cross-national study. *Journal of Business Ethics*, 110(1), 113-131.
- Cao, H., Chang, R., Kallal, J., Manalo, G., McCord, J., Shaw, J., & Starner, H. (2014). Adaptable apparel: A sustainable design solution for excess apparel consumption problem. *Journal of Fashion Marketing and Management*, 18(1), 52-69.
- Calkins, K. (2016, July 28). From athletic apparel to lifestyle brands: Nike, Under Armour, and Lululemon. Retrieved from <http://www.salsify.com/blog/from-athletic-apparel-to-lifestyle-brands-nike-under-armour-and-lululemon>
- Cone Communications (2015). CRS & Millennials. Retrieved from <http://conemillennialcsr.com/millennialoverview>
- Flynn L, & Goldsmith, R. (1999). A short, reliable measure of subjective knowledge. *Journal of Business Research* 46(1), 57-66.

- Fromm, J. (2014). Millennials are changing personal fitness (and what your company can learn from the trend). *The Business Journals*. Retrieved from <http://www.bizjournals.com/bizjournals/how-to/marketing/2014/06/how-millennials-are-changing-personal-fitness.html>
- Fry, R. (2016, April 25). Millennials overtake Baby Boomers as America's largest generation. *Pew Research Center*. Retrieved from <http://www.pewresearch.org/fact-tank/2016/04/25/millennials-overtake-baby-boomers/>
- Graeve, K. (2016, September 3). Global sportswear industry: Steadily growing but fragmented. *Societe Generale: Private Banking*. Retrieved from <https://www.privatebanking.societegenerale.com/en/investment-strategy/equity-solutions/equity-watcher/the-watcher-details/news/global-sportswear-industry-steadily-growing-but-fragmented/>
- Gupta, D. (2011). Functional clothing: Definition and classification. *Indian Journal of Fibre and Textile Research*, 36(4), 321-326.
- Gwin, C. F., & Gwin, C. R. (2003). Product attributes model: A tool for evaluating brand positioning. *Journal of Marketing Theory and Practice*, 10(1), 30-42.
- Hill, J., & Lee, H. H. (2012). Young Generation Y consumers' perceptions of sustainability in the apparel industry. *Journal of Fashion Marketing and Management*, 16(4), 477-491.
- Holmes, J. H., & Crocker, K. E. (1987). Predispositions and the comparative effectiveness of rational, emotional and discrepant appeals for both high involvement and low involvement products. *Journal of the Academy of Marketing Science*, 15(1), 27-35.
- Hossaini, F. (2011). *Customer quality analysis of outdoor clothing*. (Unpublished Thesis) Malardalen University, Scholl of Sustainable Development of Society and Technology, Sweden.

- Hyllegard, K. H., Ogle, J. P., & Yan, R.-N. (2014). College students' responses to prosocial marketing claims on apparel hang tags. *Journal of Fashion Marketing and Management*, 18(3), 269-283.
- Hyllegard, K. H., Yan, R.-N., Ogle, J. P., & Lee, K.-H. (2012). Socially responsible labeling: The impact of hang tags on consumers' attitudes and patronage behaviors toward an apparel brand. *Clothing and Textiles Research Journal*, 30(1), 51-66.
- ISPO. (2017, January 20). Patagonia and Nike: "circular economy multinational award" for exemplary recycling economy. Retrieved from [http://www.ispo.com/en/companies/id\\_79695200/world-economic-forum-praises-patagonia-and-nike.html](http://www.ispo.com/en/companies/id_79695200/world-economic-forum-praises-patagonia-and-nike.html)
- Jain, K., & Srinivasan, N. (1990). An empirical assessment of multiple operationalizations of involvement. In Goldberg, M. E., Gorn, G., and Pollay, R. (Eds.), *Advances in Consumer Research* (pp. 594-602). UT: Association for Consumer Research.
- Just Style (2015). Outdoor performance apparel: Peaks, valleys, and green fields. Retrieved from <https://www.marketresearch.com/product/sample-8684095.pdf>
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica: Journal of the Econometric Society*, 47(2), 263-291.
- Kahneman, D., & Tversky, A. (1984). Choices, values, and frames. *American Psychologist*, 39(4), 341-350.
- Kell, J. (2014, December 25). Athletic apparel: Outperforming the competition in 2014. *Fortune*. Retrieved from <http://www.bizjournals.com/bizjournals/how-to/marketing/2014/06/how-millennials-are-changing-personal-fitness.html>

- Kim, H. S., & Damhorst, M. L. (1999). Environmental attitude and commitment in relation to ad message credibility. *Journal of Fashion Marketing and Management: An International Journal*, 3(1), 18-30.
- Ko, E., Taylor, C. R., Sung, H., Lee, J., Wagner, U., Navarro, D. M. C., & Wang, F. (2012). Global marketing segmentation usefulness in the sportswear industry. *Journal of Business Research*, 65(11), 1565-1575.
- Kosmas, N (2013) Leaders in performance wear industry. *Novembre Magazine*. Retrieved from <http://novembremagazine.com/leaders-in-the-performance-wear-industry-by-nik-kosmas>  
<http://novembremagazine.com/leaders-in-the-performance-wear-industry-by-nik-kosmas>
- Kozar, J. M., & Hiller Connell, K. Y. (2010). Socially responsible knowledge and behaviors: Comparing upper vs. lower-classmen. *College Student Journal*, 44(2), 279-293.
- Landrum, S. (2017, October 6). Millennials link money with happiness, but not how you expect. Retrieved from <https://www.forbes.com/sites/sarahlandrum/2017/10/06/millennials-link-money-with-happiness-but-not-how-you-expect/#449186c5dd62>
- Lastovicka, J., & Gardner, D. (1979). Components of involvement. In Maloney, J. C., and Silverman, B. (Eds.), *Attitude Research Plays for High Stakes* (pp. 53-73). Chicago, IL: American Marketing Association.
- Lieber, C. (2015) Selling the great outdoors: The billion-dollar brand battle for casual camper. Retrieved from <http://www.racked.com/2015/5/7/8565149/outdoor-brands-patagonia-rei-nike-lululemon>
- Loki (2015). Company Website. Retrieved from <http://www.lokiusa.com/>

- Main, D. (2017, September 8). Who are the Millennials. *Live Science*. Retrieved from <https://www.livescience.com/38061-millennials-generation-y.html>
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2), 224-253.
- Matsunaga, M., (2010). How to factor-analyze your data right: Do's, don'ts and how-to's. *International Journal of Psychological Research*, 3(1), 97-110.
- Millennial Marketing (2017). Who are Millennials. Retrieved from <http://www.millennialmarketing.com/who-are-millennials/>
- Neese, W. T., & Taylor, R. D. (1994). Verbal strategies for indirect comparative advertising. *Journal of Advertising Research*, 34(2), 56-70.
- Newman, C., Howlett, E., Burton, S., Kozup, J., Tangari, A. (2015). The influence of consumer concern about global climate change on framing effects for environmental sustainability messages. *International Journal of Advertising*, 31(3), 511-527.
- Nickelsburgh, M. (2016) Outdoor retailer REI reports 23% increase in digital sales, record membership growth. Retrieved from <http://www.geekwire.com/2016/outdoor-retailer-rei-reports-23-increase-digital-sales-record-membership-growth/>
- Nike News. (2015, September 25). MIT climate colab and Nike call for materials innovation to combat climate change. Retrieved from <http://news.nike.com/news/nike-inc-and-mit-climate-colab-materials-innovation-to-combat-climate-change>
- Ogle, J. P., Hyllegard, K. H., & Dunbar B. (2004). Predicting patronage behaviors in a sustainable retail environment: Adding retail characteristics and consumer lifestyle orientation to the belief-attitude-behavior intention model. *Environment & Behavior*, 36(5), 717-741.

- Olsen, M., Slotgraaf, R., Chandukala, S. (2014). Green claims and message frames: how green new products change brand attitude. *Journal of Marketing* 78(5), 119-137.
- Outdoor Industry Association (2015). 2015 annual report. Retrieved from <https://outdoorindustry.org/2015-annual-report/#milestones>
- Patagonia. (n.d.a). Company Website. Retrieved from <http://www.patagonia.com/company-info.html>
- Patagonia. (n.d.b) Company Website. Retrieved from <http://www.patagonia.com/materials-tech.html>
- Pew Research Center (2012). Millennials: Confident. Connected. Open to change. [Executive Summary] Retrieved from <http://www.pewsocialtrends.org/2010/02/24/millennials-confident-connected-open-to-change/>
- Phau, I., & Ong, D. (2007). An investigation of the effects of environmental claims in promotional messages for clothing brands. *Marketing Intelligence & Planning*, 25(7), 772-788.
- Sambandam, R., & Lord, K. (1995). Switching behavior in automobile markets: A consideration-sets model. *JAMS*, 23(1), 57-65.
- Shishoo, R. (2015). *Textiles in sportswear*. Cambridge: Woodhead Publishing Ltd.
- Solomon, M. (2014, December 29). 2015 is the year of the Millennial customer: 5 key traits these 80 million consumers share. *Forbes*. Retrieved from <https://www.forbes.com/sites/micahsolomon/2014/12/29/5-traits-that-define-the-80-million-millennial-customers-coming-your-way/#599394fb25e5>
- Statista. (n.d.). Size of the sportswear market worldwide from 2009 to 2017. Retrieved from <https://www.statista.com/statistics/613169/size-of-the-global-sportswear-market/>

- Stevens, J., Lathrop, A., & Bradish, C. (2005). Tracking Generation Y: A contemporary sport consumer profile. *Journal of Sport Management, 19*(3), 254.
- The Center for Generational Kinetics. (2016, November 28). How to determine generational birth years. Retrieved from [http://genhq.com/generational\\_birth\\_years/](http://genhq.com/generational_birth_years/)
- Tsai, S. P. (2007). Message framing strategy for brand communication. *Journal of Advertising Research, 47*(3), 364-377.
- UCLA Sustainability. (n.d.). What is sustainability? Retrieved from <https://www.sustain.ucla.edu/about-us/what-is-sustainability/>
- United States Census Bureau (2017a). Highest Educational Levels Reached by Adults in the U.S. Since 1940. Retrieved from <https://www.census.gov/newsroom/press-releases/2017/cb17-51.html>
- United States Census Bureau (2017b). QuickFacts United States. Retrieved from <https://www.census.gov/quickfacts/fact/table/US/PST045217>
- Wang, W., Wang, Y., Lian Yu, S., Sun, L., Liu, J., & Min Wei, X. (2014). Design for mutual transformation between outdoor wear and camping tent. *International Journal of Clothing Science and Technology, 26*(4), 291-304.
- White, K., MacDonnell, R., & Dahl, D. W. (2011). It's the mind-set that matters: The role of construal level and message framing in influencing consumer efficacy and conservation behaviors. *Journal of Marketing Research, 48*(3), 472-485.
- Yan, R. N., Hyllegard, K. H., & Blasei, L. F. (2012). Marketing eco-fashion: The influence of brand name and message explicitness. *Journal of Marketing Communications, 18*(2), 151-168.

## APPENDIX 1

### Instruments and Survey

#### Demographics:

1. Gender (select one):
  - a. Male
  - b. Female
  - c. Bi-gender, gender non conforming, undecided, questioning or other
2. Age: \_\_\_\_\_ years
3. Ethnicity/Race: \_\_\_\_\_
4. Country of Residence: \_\_\_\_\_
5. Level of education (please select the highest level of education you have achieved):
  - a. High school graduate
  - b. Vocation/technical school graduate
  - c. College graduate (A.A., B.A, B.S.)
  - d. Graduate degree (J.D., M.A., M.D., M.S., Ph. D. Ed. D., etc.)
6. Please indicate how often you participate in the following outdoor activities (during the appropriate season) by selecting the corresponding response. [1=never, 3=two times per month, and 5=two or more times per week]
  - a. Bicycling
  - b. Backpacking/hiking
  - c. Canoeing
  - d. Rock Climbing
  - e. Fishing
  - f. Kayaking
  - g. Mountaineering
  - h. Camping
  - i. Rollerblading
  - j. Skiing, cross-country
  - k. Skiing, downhill
  - l. Snowboarding
  - m. Snowshoeing
7. Please select the phrase below that best describes your lifestyle (select one):
  - a. Competitive athlete, please state sport/activity \_\_\_\_\_
  - b. Avid outdoor enthusiast (engage/participate in various outdoor sports on a weekly basis)
  - c. Recreational participant (engage/participate in one/few outdoor sports on a monthly basis)
  - d. I do not regularly participate in outdoor sports
8. Are you a member of an outdoor club or organization?
  - a. Yes, please state club or organization \_\_\_\_\_
  - b. No

9. Please indicate your occupation(s) \_\_\_\_\_

10. Please indicate your annual income \$ \_\_\_\_\_

**11. Environmental Commitment:** Kim, H. S., & Lynn Damhorst, M. (1999). Environmental attitude and commitment in relation to ad message credibility. *Journal of Fashion Marketing and Management: An International Journal*, 3(1), 18-30 (as modified by Ogle, Hyllegard, Dunbar, 2004). Four additional items, specific to clothing, “purchased used or upcycled clothing”, “Purchase sustainable clothing”, “Rent clothing/accessories for personal use”, “Discard clothing in a responsible manner” were added to this scale to more fully assess the behaviors of today’s outdoor-enthusiast consumer.

**Please indicate the level of frequency with which you do the following by selecting the appropriate response. [1=never and 7=always]**

1. Recycle bottles, cans, or glass containers
2. Recycle newspapers
3. Avoid buying products from companies who are not environmentally responsible
4. Buy products made from or packaged in recycled materials
5. Buy products in refillable containers
6. Contribute money to environmental groups
7. Cut down on auto exhaust by taking public transportations, car-pooling, biking, ect.
8. Buy more durable goods rather than disposable goods
9. Buy in bulk or large quantities
10. Buy energy efficient appliances
11. Follow water use restrictions
12. Purchase sustainable clothing (i.e. products made from organic cotton, non-toxic dyes, etc.)
13. Purchase used or upcycled clothing
14. Rent clothing/accessories for personal use
15. Discard clothing in a responsible manner (i.e., do not throw it away)

**12. Self-Construal (independent):** Tsai, S. P. (2007). Message framing strategy for brand communication. *Journal of Advertising Research*, 47(3), 364-377.

**Please indicate your degree of agreement with the following statements by selecting the appropriate response. [1=strongly disagree and 7=strongly agree]**

1. I should be judged on my own merits.
2. I prefer to be self-reliant rather than depend on others.
3. I take responsibility for my own actions.
4. Being able to take care of myself is a primary concern for me.
5. I enjoy being unique and different from others.

**13. Self-Construal (interdependent) :** Tsai, S. P. (2007). Message framing strategy for brand communication. *Journal of Advertising Research*, 47(3), 364-377.

**Please indicate your degree of agreement with the following statements by selecting the appropriate response. [1=strongly disagree and 7=strongly agree]**

1. I consult others before making important decisions.
2. I respect decisions made by my group.
3. I depend on others to help me solve difficult problems.
4. I try to abide by customs and conventions.
5. I care a lot about what others think of me.

#### **14. Product Involvement:**

Lastovicka, J., & Gardner, D. (1979). Components of involvement. In Maloney, J. C., and Silverman, B. (Eds.), *Attitude Research Plays for High Stakes* (53-73). Chicago, IL: American Marketing Association.

**Please indicate your degree of agreement with the following statements by selecting the appropriate response. [1=strongly disagree and 7=strongly agree]**

Outdoor apparel . . .

1. is a product that I could talk about for a long time.
2. is a product that I understand the features of well enough to evaluate products/brands.
3. is a product that helps me attain the lifestyle I strive for.
4. allows me to make connections between life experiences and product use.

**15. Jain, K., & Srinivasan, N. (1990). An empirical assessment of multiple operationalizations of involvement. In Goldberg, M. E., Gorn, G., and Pollay, R. (Eds.), *Advances in Consumer Research* (pp. 594-602). UT: Association for Consumer Research.**

**Please indicate your degree of agreement with the following statements by selecting the appropriate response. [1=strongly disagree and 7=strongly agree]**

When purchasing outdoor apparel items . . .

1. It is not a big deal if I make a mistake in my selection.
2. I never know if I am making the right selection. (r)
3. I am certain of my selection.

**16. Product Knowledge:** Tsai, S. P. (2007). Message framing strategy for brand communication. *Journal of Advertising Research*, 47(3), 364-377.

Sambandam, R., & Lord, K. (1995). Switching behavior in automobile markets: A consideration-sets model. *JAMS*, 23(1), 57-65.

Flynn L, & Goldsmith, R. (1999). A short, reliable measure of subjective knowledge. *Journal of Business Research* 46(1), 57-66.

**Please indicate your degree of agreement with the following statements by selecting the appropriate response. [1=strongly disagree and 7=strongly agree]**

1. Compared to the average person, I know a lot about outdoor apparel.
2. I feel quite knowledgeable about outdoor apparel.
3. Among my circle of friends, I'm one of the "experts" on outdoor apparel.
4. I rarely come across a piece of outdoor apparel I haven't heard of.
5. I know pretty much everything about outdoor apparel.
6. I do not feel very knowledgeable about outdoor apparel. (r)
7. Compared to most other people, I know less about outdoor apparel. (r)
8. When it comes to outdoor apparel, I really don't know a lot. (r)
9. I have heard of most of the new pieces of outdoor apparel that are around.

**17. Attitudes toward the Ad:** Holmes, J. H., & Crocker, K. E. (1987). Predispositions and the comparative effectiveness of rational, emotional and discrepant appeals for both high

involvement and low involvement products. *Journal of the Academy of Marketing Science*, 15(1), 27-35.

Neese, W. T., & Taylor, R. D. (1994). Verbal strategies for indirect comparative advertising. *Journal of advertising research*, 34(2), 56-70.

**Please indicate your degree of agreement with the following statements by selecting the appropriate response. [1=strongly disagree and 7=strongly agree]**

1. This ad is believable.
2. This ad is useful.
3. This ad is informative.
4. The meaning in this ad is clear.
5. This ad is likable.
6. This ad is convincing.

**18. Attitudes toward the Brand (belief strength):**

**Please indicate your degree of agreement with the following statements by selecting the appropriate response [1=strongly disagree and 7=strongly agree]**

Loki ...

1. creates durable, quality goods.
2. promotes environmentally conscious behavior.
3. is inventive with it's design, constantly pushing for lighter and better gear.
4. creates products that protects the wearer from the elements.

**19. Attitudes toward the Brand (belief evaluation or importance of belief):**

**Please indicate your degree of agreement with the following statements by selecting the appropriate response [1=strongly disagree and 7=strongly agree]**

It is important for an outdoor apparel company to....

1. create durable, quality goods.
2. promote environmentally conscious behavior.
3. be inventive with it's design, constantly pushing for lighter and better gear.
4. create products that protect the wearer from the elements.

**20. Subjective Norm (Perceptions of others' beliefs):** Ajzen, I., & Fishbein, M. (1980).

*Understanding Attitudes and Predicting Social Behavior*, Englewood Cliffs, NJ: Prentice-Hall.

**Please indicate your degree of agreement with the following statements by selecting the appropriate response. [1= I should not and 7= should]**

Most people who are important to me think I should ...

1. be concerned about environmental conservation.
2. be concerned about over consumption.
3. be concerned about supporting companies that design apparel that can serve more than one function.
4. be concerned about supporting the use of recycled material in apparel design.
5. be concerned about natural environment education.

**21. Subjective Norm (Motivation to Comply): Please indicate your degree of agreement with the following statements by selecting the appropriate response. [1=not at all and 7=very much]**

1. Generally speaking, how much do you want to do what other people who are important to you think you should do?

**22. Perceived Behavioral Control – Ajzen, I. (1991) Theory of Planned Behavior.**

*Organizational Behavior and Human Decision Processes*, 50(2), 179-211.

**Please indicate your degree of agreement with each of the following statements by selecting the appropriate response. [1=strongly disagree and 7=strongly agree]**

1. I am confident that I could purchase this Loki jacket.
2. I expect that it will be easy for me to purchase a Loki jacket.
3. The decision to purchase a Loki jacket is beyond my control. (r)
4. Whether I purchase the Loki jacket or not is not entirely up to me. (r)

**23. Behavior Intention:** Ajzen, I., & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*, Englewood Cliffs, NJ: Prentice-Hall. Additional items were added to this scale to better reflect behaviors of the modern outdoor enthusiast's consumer.

**Please indicate your degree of agreement with each of the following statements by selecting the appropriate response. [1=strongly disagree and 7=strongly agree]**

1. I intend to learn more about outdoor wear that is designed to serve more than one purpose (i.e. a jacket that can be used as a backpack).
2. I intend to purchase outdoor wear that is designed to serve more than one purpose (i.e. a jacket that can be used as a backpack).
3. I intend to follow Loki on social media.
4. I would visit the Loki physical or online store.
5. I would visit the Loki website to learn more about their products.
6. I would purchase the Loki brand.
7. I would tell a friend about Loki.

## APPENDIX 2

### **Stimuli**

Advertisement #1:

**LOKI**

# PACK LIGHT WITH THE JACKET THAT GIVES YOU MORE.

**The 4 in 1 LOKI jacket features:**

1. An adjustable hood
2. Built in optional mittens
3. Optional face shield
4. Unique, zippered lumbar pocket that converts into a low profile day pack large enough to carry the shell itself, a bottle of water, keys, a wallet and other small items.

Much can be gained when we think about how our choices for outdoor wear may impact the environment. More than 115 million tons of used fabric/clothing waste is generated each year in the United States, and the amount has doubled over the last 20 years. The choice to recycle, repurpose, and/or purchase transformational apparel will decrease the total amount of clothing that ends up in landfills every year. Make the right choice for outdoor wear - the LOKI Tak Shell.

**LOKI TAK SHELL**

Advertisement #2:



**LOKI**

**PACK LIGHT WITH THE JACKET THAT GIVES YOU MORE.**

Much can be gained when we think about how our choices for outdoor wear may impact the environment. More than 15 million tons of used fabric/clothing waste is generated each year in the United States, and the amount has doubled over the last 20 years. The choice to recycle, repurpose, and/or purchase transformational apparel will decrease the total amount of clothing that ends up in landfills every year. Make the right choice for outdoor wear - the Løki Tak Shell.

**LOKI TAK SHELL**

Advertisement #3:

**LOKI**

# PACK LIGHT WITH THE JACKET THAT GIVES YOU MORE.

**The 4 in 1 LOKI jacket features:**

1. An adjustable hood
2. Built in optional mittens
3. Optional face shield
4. Unique, zippered lumbar pocket that converts into a low profile day pack large enough to carry the shell itself, a bottle of water, keys, a wallet and other small items.

Much can be lost when we don't think about how our choices for outdoor wear may impact the environment. More than 15 million tons of used fabric/clothing waste is generated each year in the United States, and the amount has doubled over the last 20 years. The choice not to recycle, repurpose, and/or purchase transitional apparel will increase the total amount of clothing that ends up in landfills every year. Make the right choice for outdoor wear - the LOKI Tak Shell.

## LOKI TAK SHELL

**1**

**2**

**3**

**4**

Advertisement #4:



**LOKI**

**PACK LIGHT WITH THE JACKET THAT GIVES YOU MORE.**

Much can be lost when we don't think about how our choices for outdoor wear may impact the environment. More than 15 million tons of used fabric/clothing waste is generated each year in the United States, and the amount has doubled over the last 20 years. The choice not to recycle, repurpose, and/or purchase transformational apparel will increase the total amount of clothing that ends up in landfills every year. Make the right choice for outdoor wear - the Loki Tak Shell.

**LOKI TAK SHELL**