The Influence of Low- versus High-Threat Fear Appeals on Advertisement Believability for Eco-Friendly Fashion Brands: Exploring the Moderating Effects of Message Framing and Consumer Involvement

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Abstract

The Influence of Low- versus High-Threat Fear Appeals on Advertisement Believability for Eco-Friendly Fashion Brands: Exploring the Moderating Effects of Message Framing and Consumer Involvement

Swananya Mukherjee Nath

Despite the widespread prevalence of greenwashing and escalating consumer skepticism in the sustainability sector, limited research exists on identifying ways to enhance the believability of eco-friendly fashion brands' communications. This gap is critical, especially given the need to promote such brands, considering the harmful environmental and health effects of unsustainable fashion practices. The current research aims to address this gap by investigating the interplay of fear appeal threat level, message framing, and consumer message involvement on message believability, which is critical in shaping consumer attitudes and purchase intentions toward eco-friendly fashion brands. Through a pre-test and two online experiments, the results suggest that high-threat fear appeals are likely to increase advertising message believability compared to low-threat fear appeals (Study 2). Additionally, it was found that in the low-threat condition, there was a slight preference for promotion-focused advertisements over prevention-focused ones in terms of believability (Study 1). Furthermore, in instances of low-threat fear appeals, heightened consumer involvement might enhance the believability of advertising messages (Study 2). The study also explores the downstream effects of message believability on consumer attitudes and purchase intentions (Study 2). This study investigates the persuasive power of fear appeals in the realm of eco-friendly fashion, identifying cues to enhance message believability and offering actionable strategies for marketers to address consumer skepticism.

Furthermore, it proposes strategies to augment the effectiveness of governmental campaigns aimed at encouraging more sustainable consumption habits within the fashion industry.

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Dedication

To my beloved husband, dear mother, and super-supportive supervisor
Your unwavering love and guidance have fueled my journey—this work is dedicated to you.

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Introduction

In exploring the less glamorous facets of the fashion industry, the backstage reality unveils a narrative often overshadowed by glitz and glamour (Zach, 2023). Recent United Nations (UN) news reports in July 2023 have highlighted the alarming consequences of climate change, including children swept away by monsoon rains, families fleeing wildfires, and workers succumbing to extreme heat—signifying the onset of a global boiling era (UN News, 2023). The fashion industry has emerged as a significant contributor to this environmental crisis (UNEP, 2022), with the clothing production sector accounting for 8-10% of worldwide greenhouse gas emissions, a figure surpassing the combined emissions of the aviation and shipping industries, as reported by the UN (Stallard, 2022). Furthermore, every year, our oceans receive millions of metric tons of plastic waste, among which 1.5 million metric tons consist of microplastics (AnuMeena Care Foundation, 2023). Notably, the petrochemical textile industry significantly contributes to this environmental crisis (AnuMeena Care Foundation, 2023). These microscopic plastic particles, measuring less than 5 mm, pose severe threats to marine life and ecosystems (Rovira & Domingo, 2019). The textile processing industry's use of fertilizers, chemicals, dyes, and water-intensive practices further contributes to the pollution of rivers, freshwater, and marine ecosystems on a global scale (Pollak, 2022). Additionally, the industry's unsustainable practices, involving the use of harmful chemicals during fabric and dye production, pose health risks for consumers, ranging from skin irritation to allergies, and potentially increasing the risk of skin cancer (Rovira & Domingo, 2019; Wilson, 2022). Despite the magnitude of these environmental and health issues, public awareness and understanding of the fashion industry's impact remain surprisingly limited (Adamkiewicz et al., 2022). Moreover, the industry's reliance on fast fashion exacerbates environmental degradation by promoting rapid production cycles and encouraging

overconsumption (Feldstein, 2023). This culture of disposability, driven by the constant pursuit of trends, perpetuates a cycle of waste and environmental harm (Feldstein, 2023).

Given the fashion industry's significant environmental and health consequences, the establishment of eco-friendly fashion brands has risen (Shen & Kim, 2020). According to Ray and Nayak (2023), eco-friendly fashion brands integrate sustainability practices throughout their lifecycle to minimize environmental impact and promote social responsibility, aligning with the principles of the slow fashion movement. Over the past few years, companies have started allocating substantial resources to develop and promote such green products. However, the successful adoption of such brands by consumers hinges on effective communication strategies (Shen & Kim, 2020). In the realm of advertising and communication research, scholars have extensively explored the impact of various appeals on consumer attitudes and behavioural changes. Negative emotional appeals, particularly fear, are frequently employed to induce such changes (Shin et al., 2017). Despite widespread research in this domain, there is a dearth of scholarly attention on how fear appeals influence consumer trust, particularly within the context of eco-friendly fashion brands.

Adding complexity to this scenario is the growing concern of greenwashing within the fashion industry, posing a challenge for companies to gain consumer trust (Adamkiewicz et al., 2022). Greenwashing involves the deceptive promotion of an organization's environmental efforts, leading to consumer skepticism and doubt about sustainability claims (Becker-Olsen & Potucek, 2013; & Walker, 2023). Despite the widespread prevalence of greenwashing, there is limited research exploring how to earn consumer trust within this realm of deceptive practices (Wang & Walker, 2023). This study aims to address this existing gap by investigating how low-threat versus high-threat fear appeals, as outlined by Popova (2011), shapes consumer trust and

intentions toward eco-friendly brands. The research delves into the intricate interplay between fear appeal, the framing of advertising messages (Lee & Aaker, 2004) and consumer engagement with the campaign (Wang & Calder, 2006) on consumer advertising believability. Through this examination, the study seeks to elucidate the factors that contribute to shaping consumer trust in eco-friendly fashion brand claims (Shin et al., 2017).

Specifically, the thesis aims to address the following questions: (1) What is the impact of high-threat versus low-threat fear appeals on the believability of advertising messages?; (2) How do promotion versus prevention-focused message framing and consumer involvement in a campaign moderate the relationship between fear appeal threat levels and consumers' believability in advertising messages?; (3) Does believability of the advertising message influence consumer attitudes and purchase intention toward eco-friendly fashion brands?

Theoretical Background

The theoretical background of this study lays the groundwork for comprehending the constructs under investigation and formulating hypotheses based on existing research. Through a thorough review of theoretical concepts and empirical research, our objective is to synthesize existing knowledge in the field, facilitating the proposal of informed hypotheses.

Direct Effect of Fear Appeal on Believability

Fear appeals are persuasive messages that aim to evoke fear in individuals to motivate them to change their behaviour (Maddux & Rogers, 1983). For instance, anti-smoking campaigns often resort to fear appeals to dissuade consumers from smoking (Wong & Cappella, 2009). These appeals highlight potential threats or negative consequences associated with not taking the desired action, such as health risks or social disapproval (Maddux & Rogers, 1983). The intention behind fear appeals is to prompt individuals to adopt the recommended behaviour

to mitigate the perceived threat (Moussaoui et al., 2021). According to the Extended Parallel Process Model (EPPM), the threat is conceptualized as "a danger or harm that exists in the environment whether we know it or not" (Witte et al.,1996, p. 320). According to this theoretical framework, it is not the objective presence of the threat itself, but rather individuals' subjective perception and appraisal of the threat that serves as the primary motivator for action.

Drawing from the health belief model (Becker, 1974), fear appeal threat level within the EPPM consists of two key elements: perceived severity and perceived susceptibility (Witte et al., 1996, p. 320). Perceived severity refers to individuals' beliefs about the significance or magnitude of the threat posed by a particular situation or stimulus (Maloney et al., 2011). This encompasses the perceived seriousness of the potential consequences associated with the threat, such as the extent of physical harm, emotional distress, or social implications that may result from exposure to the threat (Maloney et al., 2011). Perceived susceptibility, on the other hand, pertains to individuals' beliefs about their own vulnerability to experiencing the threat (Maloney et al., 2011). It involves assessing the perceived likelihood of being affected by the threat based on various factors such as personal characteristics, past experiences, and situational contexts (Maloney et al., 2011). Individuals may evaluate their susceptibility to the threat by considering factors such as their health status, lifestyle behaviours, environmental exposures, and perceived control over the situation (Shin et al., 2017).

Together, these components of fear appeal threat level enable individuals to evaluate the severity of the situation and make judgments about how serious or imminent the threat is (Witte et al., 1996; Popova, 2011). By assessing both the perceived severity and susceptibility of a threat, individuals can determine the level of concern or urgency warranted in response to the threat (Witte et al., 1996). This process of fear appeal threat level plays a critical role in shaping

individuals' emotional reactions, cognitive processing, and behavioural responses to potential threats, ultimately influencing their decision-making and adaptive coping strategies (Witte et al., 1996; Popova, 2011).

On the other hand, believability in advertising messages refers to how reliably, truthfully, and authentically they are perceived by the target audience (Chen & Chang, 2012). This perception involves ensuring that claims are neither exaggerated nor deceptive, maintaining a sense of genuineness. Given the prevalence of greenwashing and heightened consumer skepticism in green advertising, understanding believability is paramount (Adamkiewicz et al., 2022). Therefore, our research seeks to explore marketing communication cues within the fashion industry that can enhance the believability of eco-friendly advertisements.

To my knowledge, there is scarce research looking at the correlation between fear appeal's threat level (i.e., low vs. high appraisal of threat severity and likelihood) and the believability of advertising messages in eco-friendly fashion contexts. Instead, the predominant focus of previous fear appeal research centred on discerning the behavioural responses to fear appeals, including behaviours aimed at mitigating perceived threats or eliciting defensive reactions (Tannenbaum et al., 2015; Moussaoui et al., 2021). The emphasis placed on believability as a key outcome variable holds particular significance, given its pivotal role in addressing consumer skepticism amid the escalating prevalence of greenwashing within the fashion industry (Adamkiewicz et al., 2022).

Another thing to mention, in my research, is the fear appeal threat level stimuli not only depict the harmful effects of unsustainable fashion on the environment but also on consumer health. By highlighting both consequences of unsustainable fashion practices, the fear appeal

increases the proximal and relevant nature of these consequences as the fear appeal becomes more salient and personally relevant to the consumer (Shen & Kim, 2020).

In this study, I propose that fear appeals can directly influence consumers' believability in the advertising message, with high-threat fear appeals being evaluated as more believable compared to low-threat fear appeals. This hypothesis is supported by two key theoretical perspectives: (1) the concept that high emotional arousal decreases skepticism in message processing, and (2) the strong correlation between risk perception and the trustworthiness of a message, as outlined in the risk perception literature.

Studies by Luna & Martín-Luengo (2018) found that heightened emotional arousal, stemming from exposure to emotionally charged content related to the COVID-19 pandemic on social media, reduced skepticism toward communication messages. This suggests that individuals are more likely to trust information during times of heightened emotional arousal (Luna & Martín-Luengo, 2018). Consistently, Tannenbaum et al. (2015) investigated the impact of emotional arousal on skepticism and receptivity to persuasive messages. Participants were exposed to emotionally charged (versus neutral) messages (Tannenbaum et al., 2015) and it was found that heightened emotional arousal led to decreased skepticism and increased receptivity to persuasive messages, suggesting that emotional engagement enhances message effectiveness (Tannenbaum et al., 2015). High-threat fear appeal, which typically induces high emotional arousal, triggers the body's fight-or-flight response, as demonstrated by Šimić et al. (2021). Carey and Sarma (2016) further build on this, showing that emotional intensity resulting from fear can override the typical skepticism toward messages. Participants exposed to fear-inducing (versus neutral) messages about smoking's health risks exhibited reduced skepticism toward anti-smoking advertisements, suggesting that heightened emotional arousal diminishes critical

evaluation and enhances message credibility. Therefore, when individuals experience high emotional arousal, they are less likely to scrutinize message content and more inclined to perceive it as believable.

The risk literature further supports the link between individuals' perceptions of risk and their evaluation of message trustworthiness (Peters et al., 1997; Eiser et al., 2002). According to this perspective, when individuals perceive an elevated level of risk associated with a specific threat, they tend to perceive messages addressing that threat as more trustworthy. Stewart (2019) further expands on this concept by emphasizing that when individuals perceive a high level of risk linked to a particular threat, they are inclined to regard messages addressing that threat as credible and trustworthy (Stewart, 2019). This is because messages aligned with these risk perceptions are deemed more relevant and informative, as they directly address individuals' concerns and uncertainties. For example, messages providing practical tips on reducing carbon footprint are likely to be perceived as credible and trustworthy by individuals who perceive a high level of risk associated with climate change (Stewart, 2019). By acknowledging and providing guidance on addressing these concerns, such messages are perceived as more credible and trustworthy, thereby enhancing their overall effectiveness in communication (National Research Council (US) Committee on Risk Perception and Communication, 2011).

Combining these theoretical perspectives, I propose the following hypothesis:

H1: When the fear appeal focuses on a high (versus low) threat, the message's believability will be higher.

Moderating Role of Message Framing

My investigation now turns toward examining the moderating effect of message framing on the relationship between fear appeal threat level and the believability of advertising messages. Marketing message framing, as delineated by Grappi et al. (2024), pertains to how information is

presented to consumers to influence their perceptions and behaviours. In the present context, the goal-oriented message framing framework, which is based on the regulatory focus theory (Higgins, 1997), will be applied. The regulatory focus theory posits that there exist two distinct systems of goal pursuit: (1) the promotion system, which is oriented toward achieving gains as well as striving for growth, advancement and the pursuit of ideals; and (2) the prevention system, which is focused on maintaining non-losses, ensuring safety and security, as well as avoiding negative outcomes (Higgins, 1997). Goal-oriented message framing aligns with these two systems of goal pursuit. Promotion-focused appeals highlight the attainment of positive outcomes and target individuals motivated by advancement, success, and positive results (Lee et al., 2018). These messages emphasize the benefits and rewards of taking action, appealing to individuals' aspirations for growth and achievement. Conversely, prevention-focused appeals emphasize the avoidance of negative outcomes and are tailored to individuals who prioritize security, safety, and the prevention of undesirable consequences (Lee et al., 2018). These messages emphasize the risks and potential losses associated with not taking action, appealing to individuals' concerns about avoiding harm and maintaining the status quo.

In this research, I propose that when a fear appeal highlights a high threat, the message's believability will be higher for prevention-focused message framing than for promotion-focused framing. Conversely, when the threat in the fear appeal is perceived as low, I propose that the message's believability will remain consistent regardless of the framing. I will now delve deeper to understand the reason behind the hypothesis proposal. This proposition is rooted in the regulatory fit theory and supported by existing research literature pertaining to the theory.

The regulatory fit theory, proposed by Higgins in 1997, provides a framework for understanding how individuals respond to messages based on the alignment between their goal orientation and the means of approach (Higgins, 1997). Goal orientation refers to the underlying motivational focus individuals adopt when striving for objectives or outcomes, which can be categorized as either promotion-focused or prevention-focused (Higgins, 1997). Means of approach, on the other hand, represent the strategies individuals use to pursue their goals. These means can take the form of prevention-focused or promotion-focused strategies, depending on whether they emphasize avoiding negative outcomes or achieving positive outcomes, respectively (Higgins, 1997). When there is alignment between an individual's goal orientation and the means of approach in an advertising message, a regulatory fit is achieved. For instance, in the context of prevention-focused fear appeals, regulatory fit occurs when the goal orientation (prevention of negative outcomes mentioned in the fear appeal) aligns with the means of approach (prevention-focused message) (Lee & Aaker, 2004). Similarly, an individual who encounters a fear appeal related to lung cancer due to smoking may adopt a prevention-focused goal orientation, aiming to avoid negative health outcomes, creating a regulatory fit. This alignment enhances task engagement, fosters cognitive consonance, and makes the message more coherent and resonant with individuals' psychological frameworks (Lerner et al., 2015).

As previously discussed, in high-threat fear contexts, individuals are emotionally primed to accept messages and perceive them as trustworthy due to the evoked emotional arousal and risk perceptions associated with the threat (Peters et al., 1997; Eiser et al., 2002; Carey & Sarma, 2016; Šimić et al., 2021). This leads to a greater reliance on heuristics for decision-making (Paek et al., 2016). Therefore, when exposed to high-threat fear appeals, consumers are more likely to utilize heuristics for persuasion and believability assessment. Specifically, when individuals

encounter fear appeals about anti-smoking campaigns to prevent cancer or the importance of using sunscreen to avoid sunburns, those with a prevention-focused goal orientation are more likely to respond favorably due to regulatory fit between goal orientation and message framing (Lee & Aaker, 2004). Consequently, prevention-focused appeals, which stress the avoidance of negative outcomes, prove especially impactful in high-threat fear contexts as they resonate with individuals' goal orientation, which is to prevent the negative outcome highlighted in the fear appeal (Lee & Aaker, 2004). This alignment enhances fluency, as individuals "feel right" when the means they choose to achieve their goal aligns with their regulatory orientation (Higgins, 1997). Consequently, these prevention-focused appeals become more persuasive and convincing (Lerner et al., 2015). Hence, I hypothesize that in such contexts, the believability of prevention-focused messages will be higher than that of promotion-focused messages when the fear appeal threat level is high compared to low.

Conversely, in low-threat fear situations where emotional arousal and perceived risk are diminished, individuals may prioritize opportunities for advancement and growth rather than focusing on avoiding negative outcomes (Lee & Aaker, 2004). Therefore, promotion-focused appeals, which highlight the potential benefits of taking action despite the low threat, may resonate more with individuals' goal orientation and create processing fluency (Lee & Aaker, 2004) Consequently, they are likely to perceive promotion-focused messages as more convincing and believable in these contexts (Lerner et al., 2015).

Therefore, I propose that

H2a: When the fear appeal focuses on a high threat, the message's believability will be higher for prevention-focused (vs. promotion-focused) message framing.

H2b: When the fear appeal focuses on a low threat, the message's believability will be higher for promotion-focused (vs. prevention-focused) message framing.

Moderating Role of Consumer Message Involvement

Given the hypothesis that low-threat (versus high-threat) fear appeals are likely to undermine message believability, I propose an intervention that might mitigate this negative effect. Namely, I propose that increasing consumer involvement in processing the fear appeal message could enhance the effectiveness of low-threat fear appeal ads.

Consumer involvement with message processing signifies the depth of personal investment individuals allocate toward a product, service, or advertising message (Wang & Calder, 2006). Specifically, within the context of marketing communications, consumer involvement pertains to the extent of active engagement, interest, thoroughness, and attentiveness individuals demonstrate while interacting with the content. High levels of involvement are associated with greater attention and cognitive processing of ad content (Buchholz & Smith, 1991). This heightened cognitive engagement leads to more elaborate processing of information, deeper brand-related thoughts, and increased receptivity to persuasive messages (Wang & Calder, 2006). On the contrary, low involvement may result in minimal attention and cognitive processing of ads, leading to less effective advertising outcomes (Buchholz & Smith, 1991). In such cases, individuals may exhibit lower levels of interest, engagement, and motivation to process ad content thoroughly (Wang & Calder, 2006). In the research context, consumer involvement with the campaign and consumer involvement with message processing will be used interchangeably.

In this research, I propose that when a fear appeal highlights a high (vs. low) threat, the message's believability will remain consistent regardless of the level of consumer involvement.

Conversely, when the fear focuses on a low (versus high) threat, the message's believability will be higher when consumers exhibit high (vs. low) involvement in message processing.

The proposed hypotheses are rooted in the theory of consumer involvement with message processing and its relationship with fear appeal threat levels. Consumer involvement is widely recognized as a critical determinant of information processing and persuasion effectiveness (Iqbal et al., 2021). When consumers are highly involved in a narrative, they tend to become emotionally invested in the message (Gebbers et al., 2017).

In the context of low-threat fear appeals, high involvement with the campaign is associated with deeper processing and emotional engagement, leading to increased emotional arousal (Gebbers et al., 2017; Winkler et al., 2022). This heightened involvement fosters emotional flow and amplifies emotional arousal, thereby enhancing susceptibility to persuasive messages (Green & Brock, 2000; Tannenbaum et al., 2015; Winkler et al., 2022). Conversely, low involvement may result in shallow processing of the message, leading to weaker emotional arousal and diminished belief in the message due to limited emotional investment (Gebbers et al., 2017).

In the case of high-threat fear appeals, individuals strongly involved in message processing may experience a backfire effect due to intense emotional immersion into a feared narrative (Tannenbaum et al., 2015). High-threat appeals inherently induce heightened emotional arousal (Šimić et al., 2021), and when coupled with high involvement, this emotional arousal intensifies (Tannenbaum et al., 2015; Winkler et al., 2022), potentially leading to more defensive responses (Lewandowsky et al., 2012). This backfire effect entails individuals defensively rejecting fear-inducing messages, resulting in decreased believability of the fear appeal message (Lewandowsky et al., 2012).

Thus, I am proposing that

H3a: When the fear appeal focuses on a high threat, the message's believability will be higher when consumers exhibit low (vs. high) involvement in message processing.

H3b: When the fear appeal focuses on a low threat, the message's believability will be higher when consumers exhibit high (vs. low) involvement in message processing.

Downstream Consequences on Attitudes and Purchase Intentions

Now, my research aims to delve into past works on the influence of fear appeal message believability on two critical components: consumer attitude and purchase intentions, which are key indicators of the overall effectiveness of fear appeal campaigns (Adamkiewicz et al., 2022). In this study, it's crucial to clarify that the primary dependent variable under investigation is consumer message believability. The downstream consequences of believability on consumer attitudes and purchase intentions are considered secondary outcomes.

Extensive empirical research has consistently demonstrated that high message believability acts as a pivotal cue for consumers, indicating a level of reliability and authenticity in the advertised message (Kim & Song, 2020; Matzler et al., 2008). This perception of trustworthiness reduces consumers' perceived risk associated with purchasing from the advertised brand, thereby increasing their purchase intentions (Kim & Song, 2020; Matzler et al., 2008). Moreover, when consumers perceive advertising messages as trustworthy and authentic, they are more likely to develop favourable attitudes toward the advertising campaign (Valenzuela, 2020; Ekebas-Turedi et al., 2021). This positive attitude toward the campaign extends to the promoted brand itself, with consumers forming more positive attitudes toward its trustworthiness and likability when exposed to trustworthy advertising messages (Lou & Yuan, 2019; Liu & Zheng, 2024). By comprehensively understanding these relationships, it becomes

evident that high message believability not only enhances consumer attitudes toward advertisements but also toward the advertised brand, ultimately leading to increased purchase intentions. Therefore, I propose that:

H4a: High (vs. low) message believability will foster a positive attitude toward the specific advertising campaign.

H4b: High (vs. low) message believability will foster a positive attitude toward the promoted brand.

H4c: High (vs. low) message believability will increase purchase intentions of the promoted brand.

The framework which will be tested in the research is presented in Figure 1.

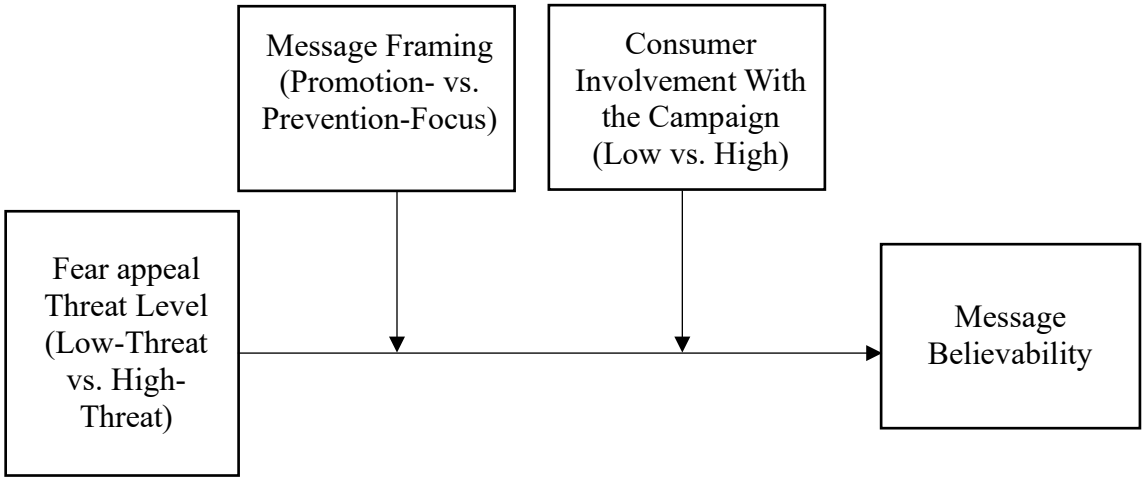

Figure 1: Proposed conceptual framework

Overview of the Experiments

This research employed two online experiments to test the effects of fear appeal threat level on consumer perception in the context of eco-friendly fashion advertising. Prior to the main studies, a pre-test assessed the validity of the fear appeal manipulation (high versus low threat level) and message framing (promotion versus prevention). Study 1 examined the direct impact of fear appeal threat level on message believability and explored the moderating role of message framing (H1, H2a, H2b). Study 2 investigated the moderating influence of consumer involvement (H3a, H3b). Additionally, Study 2 assessed the downstream effects of advertising message believability on attitudes toward the advertising campaign and the brand, as well as purchase intentions toward the brand (H4a, H4b, H4c). The studies sought to empirically evaluate the proposed conceptual model (refer to Figure 1), contributing valuable insights to the understanding of fear appeal effectiveness in eco-friendly fashion brand marketing. The studies were administered on the Qualtrics platform, and data collection was conducted via Amazon's Mechanical Turk (Murk). The choice of MTurk was based on its established reliability and replicability in producing robust results, as demonstrated in prior research (Goodman et al., 2013).

Pre-Test

The main goal of the pre-test was to determine the effectiveness of the fear appeal stimuli, in order to be able to manipulate fear appeal threat level and message framing in the following studies.

Message Stimuli

To test the fear appeal effectiveness, a 2 (fear appeal threat level: low vs. high) x 2 (message framing: promotion-focused vs prevention-focused) between-subject design was employed. A

hypothetical brand named "Green Genius" was the focus of the advertising campaign. A fictitious brand was deliberately chosen to systematically eliminate potential biases and preconceived notions associated with established fashion brands.

The severity and susceptibility of fear appeal threat levels were manipulated via the content's visual cues and the text. The visual cues, depicting skin diseases utilized in the study by Shen and Kim (2020), which investigated the impact of fear appeals and temporal frames on consumers' attitudes and purchase intentions, were obtained from their research findings. The message text was created for this study and focused on highlighting the detrimental environmental impact of the fashion industry, including its contribution to carbon emissions and water consumption, as well as the health risks posed by the chemicals used in clothing production (see Figure 2).

High-fear appeal threat level	Low-fear appeal threat level
Did you know that the fashion industry contributes to a staggering 10% of global carbon emissions and consumes a whopping 93 billion cubic meters of water each year? What's worse, the chemicals used to produce unsustainable clothes lead to **skin cancer** affecting 10 million people annually, and a mere 1 kg of harmful chemicals are used to create just 10 gm of fabric.	Did you know that the fashion industry contributes to a staggering 10% of global carbon emissions and consumes a whopping 93 billion cubic meters of water each year? What's worse, the chemicals used to produce unsustainable clothes lead to **skin diseases** affecting 10 million people annually, and a mere 1 kg of harmful chemicals are used to create just 10 gm of fabric.

Figure 2: Fear appeal threat level manipulation via messaging in the campaign

The manipulation of message framing transpired in the content's text. In the prevention-oriented text, the focus was on encouraging individuals to join the Eco-Fashion Movement to prevent environmental harm caused by the fashion industry, emphasizing the role of consumers in reducing carbon emissions, water waste, and negative health consequences associated with unsustainable clothing production. In the promotion-oriented text, the emphasis was on encouraging individuals to join the Eco-Fashion Movement to promote a more eco-conscious fashion world, highlighting the benefits to personal well-being and the environment, including cleaner air and healthier bodies of water, thereby positioning consumers as heroes for the planet (see Figure 3). See Appendix A for the pre-test's materials.

Prevention Focused	Promotion focused
Prevent a Fashion Catastrophe Become part of the **prevention solution** today. Unite with our brand within the Eco-Fashion Movement to **avert harm to our environment** for the well-being of future generations. With every purchase, you are not only **preventing carbon emissions and water waste** but also **safeguarding yourself against negative health consequences.** **Embrace your role as the protector our planet seeks.**	**Promote a Fashion Success Story** Become part of the Eco-Fashion Movement today to **promote a more eco-conscious fashion world**, in order to **help our environment and promote the well-being of future generations**. With every purchase, you are not only **enhancing your well-being** but also **contributing to cleaner air and fuller bodies of water.** **Embrace your role as the hero our planet seeks.**

Figure 3: Message framing manipulation via textual cues in the campaign

Participants and Procedure

After the ethics approval was received from Concordia University, data collection was administered. One hundred and fifty-one participants were recruited from Amazon Mechanical Turk (MTurk) through Cloud Research (M_{age} = 39.6; SD_{age} = 10.85; 43% male, 54% female and 3% non-binary/third gender) and were compensated US $0.65 for a 3-minute study. After an informed consent agreement, participants were presented with a short introductory paragraph about the eco-friendly fashion brand and the advertisement campaign to provide some context. They were then assigned to one of the four focal advertisements. They were notified to thoroughly examine the advertisement, after which they proceeded to answer related questions. Message framing was assessed using a 1-item scale (Lockwood et al., 2002; "In the campaign, is the Eco-Fashion Movement depicted as something that promotes environmental and well-being benefits OR a movement that prevents harm to the environment and consumer well-being**?** Is the message framed in terms of positive consequences of sustainable fashion OR negative consequences of fast fashion?"; 1 = promotion-oriented response; 7 = prevention-oriented response). Perceived severity of the advertised threat was measured using a three-item scale (Popova, 2011; e.g., "To what extent are the skin-related health issues mentioned in the advertisement severe/ threatening/ significant?"; 1 = not at all to 7 = extremely; α = .91). Perceived susceptibility of that advertisement was measured using a two-item scale (Popova, 2011; e.g., "According to you, what is the probability that you / someone close to you will ever be affected by skin-related health issues??"; 1 = extremely unlikely to 7 = extremely likely; r = 0.78; $p<0.001$). Finally, participants' age, gender and level of English proficiency were recorded.

Results and Discussion

A one-way analysis of variance (ANOVA) confirmed the validity of the promotion vs. prevention manipulation. The analysis revealed that the prevention message was perceived as more prevention-focused than the promotion message (M_{prev} = 5.42, SD = 1.83, M_{promo} = 4.81, SD = 2.18, F(1,149) = 3.48, p=0.064).

Two subsequent one-way ANOVAs are performed to verify that the threatening message is perceived as differentially severe and likely across the fear appeal conditions. As predicted, the analysis revealed that the high-threat message was perceived as more severe than the low-threat advertisement (M_{high} = 5.98, SD = 1.16, M_{low} = 4.55, SD = 1.30, F(1,147) = 51.14, p<0.001). However, participants did not report differential levels of threat susceptibility across the two threat (low vs. high) conditions (M_{high} = 4.52, SD = 148, M_{low} = 4.53, SD = 1.50, F(1,147) = 0.003, p= 0.955). In summary, the analyses suggest that the threat severity and message framing manipulations were effective.

Study 1

Study 1 was designed with the primary objective of examining the direct impact of fear appeal threat level on the believability of advertising messages (H1). Additionally, the study aims to explore how this relationship is influenced by the moderating factor of prevention-focused versus promotion-focused message framing (H2a, H2b). The conceptual framework, illustrated in Figure 4, served as the foundation for the empirical investigation in Study 1. Through this research, I sought to gain insights into the interplay between fear appeal threat level, message framing, and the believability of advertising messages.

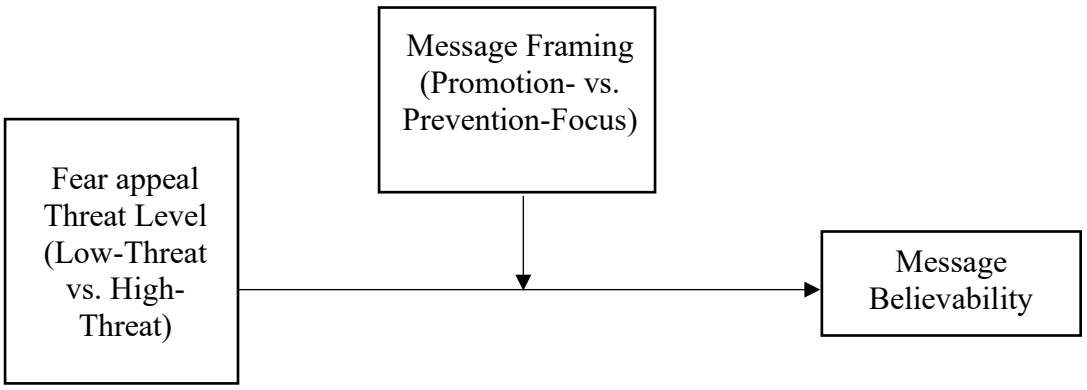

Figure 4: Proposed conceptual framework (Study 1)

Participants and Procedure

Three hundred eighty-seven (389) participants were recruited from Amazon Mechanical Turk (MTurk) through Cloud Research and were compensated US$ 0.85 for a 5-minute study. Seven participants included suspicious comments to the researcher and were excluded from the analysis (e.g., "False advertising about the competition is a turn off", "I do not participate in any fast fashion. I don't understand why people need or even want these products"). 382 participants' responses were considered for data analysis. Due to a technical glitch, we were unable to obtain the participants' demographic information.

Following the completion of the informed consent process, participants were introduced to an eco-friendly fashion brand and its associated, pre-tested advertising campaign, without any alterations. Participants were randomly assigned to one of four conditions in a 2 (fear appeal threat level: low vs. high) x 2 (message framing: promotion-focused vs prevention-focused) between-subjects design and presented with one of the four advertisements. After being instructed to carefully evaluate the advertising, participants responded to a set of questions designed to capture the main dependent variable. Specifically, message believability was gauged using Chang's (2011) four-item scale ("To what extent do you agree that the claims in the

advertisement suggesting that the fashion label "Green Genius" has the capability to avert health issues are believable/ not exaggerated/ not misleading/ real?"; 1 = Strongly disagree to 7 = Strongly agree; $\alpha = .81$). Subsequently, the same questions as in the pre-test were used to check the validity of the fear appeal threat level manipulation, namely perceived severity of threat ($\alpha = .92$) and perceived susceptibility of threat ($r = 0.77$; $p < .001$), as well as the message framing manipulation. To identify and screen out careless respondents, an attention-check question was incorporated into the survey ("Please select strongly agree as an answer to this question?" 1 = Strongly disagree to 7 = Strongly agree). Several potential control variables were measured, namely consumer environmental engagement, environmental consciousness, and brand liking. The environmental engagement was assessed by evaluating the level of involvement and actions undertaken by individuals in relation to protecting and preserving the environment (Shen & Kim, 2020) and measured using a four-item scale (Schuhwerk and Lefkoff-Hagius, 1995; "To what extent do you worry about the well-being of the environment / you agree that the state of the environment has an impact on your overall quality of life/ agree that you are prepared to make personal concessions to safeguard the environment/ agree that your individual actions contribute to environmental outcomes?"; 1 = Strongly disagree to 7 = Strongly agree; $\alpha = .91$). Environmental consciousness refers to individuals' willingness and intention to opt environmentally friendly products (Sweeney et al., 1999) was measured using a 1-item scale (Sweeney et al., 1999; "If available, how likely are you to buy green products over regular (non-green) products?"; 1 = Extremely unlikely to 7 = Extremely likely). Furthermore, brand liking was evaluated was gauged using a 1item scale (Srivastava & Lurie, 2004; "In the advertisement, there are images of clothing from our brand "Green Genius", how much did you like our brand's clothes?"; 1 = Not at all to 7 = A lot"). Demographic information, including participants' age,

gender, level of English proficiency, and the device used during the experiment (e.g., laptop, smartphone), was also collected.

A brief debriefing followed, elucidating the experiment's true purpose, and providing information about the fictitious nature of the "Green Genius" fashion brand. Finally, participants were presented with a final consent notice, seeking permission to include their responses in the data analysis.

Results and Discussion

Manipulation checks

Manipulation checks were conducted to verify that participants perceived the stimuli as intended. This step aimed to confirm that the participants' interpretation aligned with the anticipated reception of the stimuli, ensuring the validity of the experimental conditions (Gruijters, 2022).

First, unexpectedly, a one-way ANOVA showed that the prevention message was perceived as similarly prevention-focused as the promotion message (M_{prev} = 5.15, SD = 1.59, M_{promo} = 5.22, SD = 1.68, ($F(1,380) = 0.138$, $p=0.711$). This finding contrasts with the pre-test results, where successful manipulation of message framing was observed using identical stimuli. One possible explanation for the unexpected outcome could be the lack of participant engagement in the online experiment as they may face challenges related to attention, distractions or technical glitches (Anwyl-Irvine et al., 2020).

A second one-way ANOVA however did confirm that the high-threat advertisement was perceived as more severe than the low-threat advertisement (M_{high} = 6.10, SD = 1.11, M_{low} = 4.50, SD = 1.05, $F(1,380) = 209.52$, $p<0.001$). Participants exposed to the high-threat message also reported higher susceptibility to threat than participants in the low-threat condition (M_{high} =

4.31, SD = 1.48, M_{low} = 3.77, SD = 1.56, F(1,380) = 11.93, p<0.001). These results validate the threat manipulation, however suggest that participants might not have correctly recognized or paid attention to the message framing.

Additionally, potential covariates were considered in the study, namely participants' environmental engagement, environmental consciousness, brand liking, age, gender, device used, and English proficiency. While environmental engagement was significantly correlated to the main dependent variable (r = 0.44, p< 0.001), the other variables did not exhibit significant associations with the dependent variables (see Appendix B). Consequently, these latter variables were not considered in the analyses.

Direct and Moderating Effects of Fear Appeal Threat Level and Message Framing on Message Believability

Two-way ANOVA assessed the effects of fear appeal threat level and message framing as the independent variables on message believability as the dependent variable. The analysis did not reveal a main effect of fear appeal threat level on believability (F (1, 378) = 0.41, p = 0.841), thereby failing to support H1. Message framing also did not exhibit a significant main effect on message believability either (F (1, 378) = 0.526, p = 0.469). Importantly, the interaction was marginally significant (F (1, 378) = 3.072, p = 0.80) (see Figure 5).

Follow-up pairwise contrast analyses revealed that in the high-threat condition, although participants reported higher levels of believability when exposed to a prevention-focused advertisement compared to a promotion-focused advertisement (M_{prev} = 4.68, SD = 1.30, M_{promo} = 4.54, SD = 1.50) this difference in scores was not significant (p= 0.467), failing to support H2a. Conversely, in the low-threat condition, participants reported higher believability with a promotion-focused advertisement than a prevention-focused one (M_{promo} = 4.80, SD = 1.10, M_{prev}

= 4.47, SD = 1.29; p = .081). Given the difference in the scores is marginally significant I can conclude that these results provide some support for H2b.

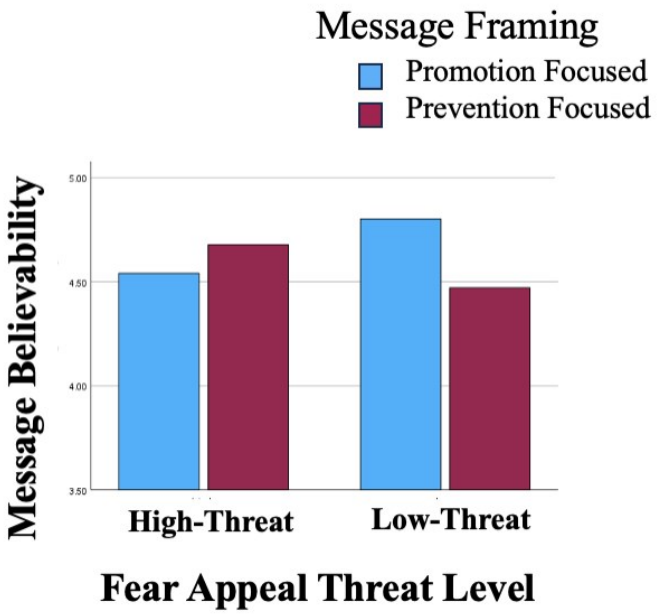

Figure 5: The main effect of fear appeal threat level and the moderating effect of message framing on the believability of the advertising message

The findings from Study 1 reveal no direct effect of fear appeal threat level on message believability (H1). But I found an interaction effect with message framing, with promotion- (vs. prevention-) focused framing being more believable for low-threat fear appeals (H2b). While I predicted that for high-threat fear appeals prevention- (vs. promotion-) focused messages will be more believable, the results of Study 1 did not corroborate this hypothesis (H2a). As such, the decision was made to delve deeper into identifying how to boost the effectiveness of prevention-focused fear appeals. Therefore, in Study 2, consumer involvement was manipulated to explore its potential to improve the effectiveness of prevention-focused framing.

Study 2

Study 2 investigated the moderating role of consumer involvement with the campaign, as posited by hypotheses H3a and H3b. Additionally, Study 2 sought to explore the downstream effects of fear appeal advertisement believability on attitudes toward the advertising campaign and the brand, as well as purchase intentions toward the brand, as hypothesized by H4a, H4b, and H4c, respectively. The conceptual framework, depicted in Figure 6, provided the structural backbone for the empirical investigation in Study 2. This study set out to explore how the interplay of fear appeal and consumer involvement impacted the believability of the advertising message. The study also unveiled how these factors collectively influenced downstream effects on consumer intentions and attitudes toward the brand and the advertisement, offering a nuanced understanding of advertising effectiveness within the eco-friendly fashion brand context. Study 2's hypotheses and analyses were preregistered using AsPredicted (see Appendix C or https:/aspredicted.org/see_one.php)

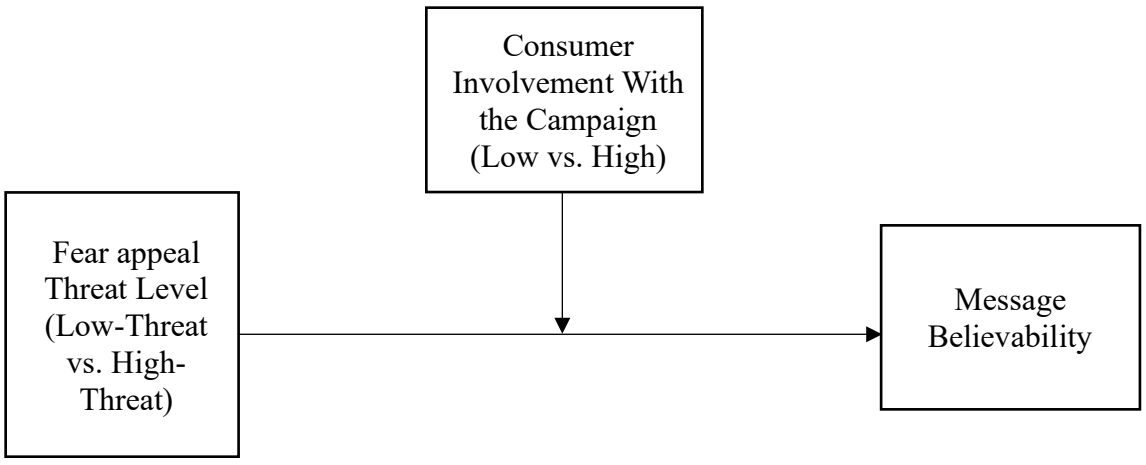

Figure 6: Proposed conceptual framework (Study 2)

Participants and Procedure

Four hundred participants were recruited from Amazon Mechanical Turk (MTurk) through Cloud Research and were compensated US$0.85 for a 5-minute study. Following the pre-registered data-exclusion criteria outlined in AsPredicted, four participants were excluded from the analysis due to their failure to pass the attention check question. The remaining 396 participants' (M_{age} = 43.13; SD = 12.16; 52.5% male, 46.2% female and 0.5% non-binary/third gender; 0.8% preferred not to say) responses were considered for data analysis. Their command in English was also tested with 98.2% with excellent command and 1.8% with good command in English. 42.9% of participants used desktops during the study; 55.3% used laptops; 1.3% used mobile phones and 0.5% used tablets during the study. To test the conceptual model delineated in Figure 6, a 2 (fear appeal threat level: low vs. high) x 2 (consumer involvement: low vs. high) between-subject design was implemented. After familiarizing themselves and signing the consent form, participants were invited to complete the study. Consumer involvement with the advertisement campaign was first manipulated by informing half of the participants (high-involvement condition) that they had been specifically selected to participate in the study and that their valuable insights would contribute significantly to the research, emphasizing their importance in the process. Additionally, participants were informed that, as a token of appreciation for their participation, they would be entered into a draw to win a $20 gift. Conversely, participants in the low-involvement condition did not receive this instruction upfront. Instead, they were only informed about their chances of winning a prize after the survey. This manipulation was adapted from Wang and Calder (2006). Refer to Appendix D for the detailed manipulation of consumer involvement conditions.

In Study 2, participants were exposed to the same low- and high-threat fear appeal stimuli utilized in Study 1, alongside the prevention-focused messages. By maintaining consistency in message content while adjusting consumer involvement with the message, I sought to ascertain whether the perceived effectiveness of the prevention-focused messages could be improved. For detailed descriptions of the advertisements employed in this study, please refer to Appendix A.

Following this, participants responded to a series of questions gauging their evaluation of the advertising. First, ad believability was assessed using the same four-item scale as in study 1 (Chang 2011; $\alpha = .93$). Subsequently, downstream consequences of message believability were measured, including the purchase intention of products from the brand, attitude toward the brand, and attitude toward the advertisement campaign for the brand. The purchase intention of products from the brand, denoting the likelihood or inclination of consumers to buy goods or services offered by that particular brand (Shen & Kim, 2020) was assessed using a three-item scale (Shen & Kim, 2020; “Suppose you were considering purchasing clothing, how probable is it that you would select products from the brand "Green Genius"?; 1 = Extremely improbable to 7 = Extremely probable, 1 = Extremely impossible to 7 = Extremely possible, 1 = Extremely unlikely to 7 = Extremely likely; $\alpha = .92$). Attitude toward the brand, representing the overall evaluation or perception that consumers hold about a particular brand (Chang, 2011) was measured using a three-item scale (Shen & Kim, 2020; “Please express your overall feelings about the brand “Green Genius"?; 1 = Very unfavourable to 7 = Very favourable, 1 = Very negative to 7 = Very positive, 1 = Very undesirable to 7 = Very desirable; $\alpha = .91$). Attitude toward the advertisement campaign, reflecting the collective perception and evaluation of a specific advertising initiative undertaken by that particular brand Chang, 2011) was assessed using a three-item scale (Shen & Kim, 2020; “Please express your overall feelings about the

campaign for the brand “Green Genius"?; 1 = Very unfavourable to 7 = Very favourable, 1 = Very negative to 7 = Very positive, 1 = Very undesirable to 7 = Very desirable; $\alpha = .93$). Then, a manipulation check of consumer involvement with the campaign was gauged using a four-item scale (Wang & Calder, 2006; “How engaged/ interested/ thorough/ attentive were you while reading the advertisement campaign?”; 1 = Not at all to 7 = Extremely; $\alpha = .94$). To validate the fear appeal threat level manipulation, participants responded to the same questions as in Study 1, assessing perceived severity of threat ($\alpha = .94$) and perceived susceptibility of threat ($r = 0.88$; $p < .001$). Similar to Study 1, an attention-check question was included in the survey to identify and screen out careless respondents (“Please select strongly agree as an answer to this question?” 1 = Strongly disagree to 7 = Strongly agree). Several potential control variables were measured, namely green product preference and advertised product perception. Green product preference, denoting the inclination of consumers to choose environmentally friendly products rather than traditional, non-environmentally friendly alternatives was assessed using a 1-item measure (Urbanski & ul Haque, 2020; “If available, how likely are you to buy green products over regular (non-green) products?”; 1 = Extremely unlikely to 7 = extremely likely). Advertised product perception, capturing the evaluation of the stimuli presented in the advertisement, specifically focusing on consumers' immediate impressions, beliefs, and attitudes toward the products featured in the advertisement campaign was measured using a 1-item scale (Surovaya, 2014; “In the advertisement, there are images of clothing from our brand "Green Genius". How much did you like our brand's clothes?”; 1 = Not at all to 7 = A lot). Demographic information, encompassing participants' age, gender, level of English proficiency, and the device utilized during the experiment (e.g., laptop, smartphone), was collected, mirroring the approach adopted in Study 1. Subsequently, participants were (re-)informed about the opportunity to enter a raffle

as a token of appreciation for their time and input, with one fortunate participant standing a chance to receive a $20 bonus through the MTurk platform. They were then asked if they were interested in participating. Following the completion of the study, a brief written debriefing ensued, elucidating the true purpose of the experiment and providing clarification regarding the fictitious nature of the "Green Genius" fashion brand. Lastly, participants were presented with a final consent notice, soliciting permission to include their responses in the data analysis.

Results and Discussion[1]

Manipulation checks

Manipulation checks were conducted to ascertain participants' perception of the stimuli as intended. Firstly, a two-way ANOVA revealed that participants in the high consumer involvement conditions demonstrated significantly greater involvement with the campaign compared to those in the low consumer involvement conditions ($F(1,392) = 9996.07$, $p<0.001$) in both the high-threat fear appeal ($M_{high\text{-}involvement} = 5.97$, $SD = 0.36$ vs $M_{low\text{-}involvement} = 2.03$, $SD = 0.41$, $F(1, 392) = 4887.07$, $p<0.001$) and low-threat fear appeal ($M_{high\text{-}involvement} = 5.96$, $SD = 0.43$ vs $M_{low\text{-}involvement} = 1.97$, $SD = 0.36$, $F(1, 392) = 5111.65$, $p<0.001$) conditions. A second two-way ANOVA confirmed that the high-threat advertisement was perceived as more severe than the low-threat advertisement ($F(1,392) = 33216.94$, $p<0.001$) for both the high-involvement ($M_{high\text{-}threat} = 6.46$, $SD = 0.29$ vs $M_{low\text{-}threat} = 1.54$, $SD = 0.26$, $F(1,392) = 16222.99$; $p<0.001$) and low-involvement ($M_{high\text{-}threat} = 6.47$, $SD = 0.27$ vs $M_{low\text{-}threat} = 1.45$, $SD = 0.27$, $F(1,392) = 17000.73$; $p<0.001$) conditions. Furthermore, a two-way ANOVA further revealed that participants perceived themselves to be more susceptible to the high-threat

[1] The quality of the data in Study 2 has been compromised by unexpected glitches that occurred on the Qualtrics platform during the data collection process.

versus low-threat in the advertising ($F(1,392) = 19769.90$, $p<0.001$) for both the high-involvement ($M_{high\text{-}threat} = 6.47$, $SD = 0.34$ vs $M_{low\text{-}threat} = 1.56$, $SD = 0.33$, $F(1,392) = 9784.50$; $p<0.001$) and low-involvement ($M_{high\text{-}threat} = 6.41$, $SD = 0.33$ vs $M_{low\text{-}threat} = 1.48$, $SD = 0.38$, $F(1,392) = 9986.57$; $p<0.001$) conditions. These analyses provide evidence confirming the successful manipulation of consumer involvement and fear appeal threat level as intended.

Additionally, potential covariates were considered in the study, namely, green product preference, advertised product perception, age, gender, device used, and English proficiency. However, correlation analyses revealed that none of these variables demonstrated significant associations with the dependent variables (see Appendix E). As a result, these variables were not included in the subsequent analyses.

It is important to note that while the analyses indicate robust evidence confirming the manipulations, the compromised data quality resulting from technical glitches necessitates further verification of these experimental results.

Direct and Moderating Effects of Fear Appeal Threat Level and Consumer Involvement on Message Believability

A two-way ANOVA was conducted to examine the effects of fear appeal threat level and consumer involvement as independent variables on message believability as the dependent variable, following the same procedure as in Study 1. The analysis revealed significant main effects for both the advertising appeal ($F (1,392) = 15196.80$, $p <0.001$) and consumer involvement ($F (1,392) = 2692.22$, $p <0.001$) on message believability. Furthermore, a significant interaction effect was observed ($F (1,392) = 2808.34$, $p < .001$)

Specifically, when the threat level presented in the appeal was high, the believability of the message was significantly higher ($M_{high\text{-}threat} = 6.49$, $SD = 0.26$) compared to when the threat level was low ($M_{low\text{-}threat} = 3.06$, $SD = 1.50$, $F (1,394) = 1006.630$, $p<0.001$). These results

provide support for H1 in Study 2 (See Figure 7). However, it is imperative to acknowledge that the compromised data quality resulting from technical glitches necessitates further verification of these experimental results. This precautionary measure ensures the integrity and reliability of the findings, despite their initial alignment with theoretical expectations and previous research.

Follow-up pairwise contrast analyses were performed to elucidate the nature of the interaction effect. In the high-threat condition, participants reported similar levels of believability regardless of whether their ad involvement was high (M = 6.47, SD = 0.03) versus low (M = 6.50, SD = 0.03; F (1,392) = 0.607, p = .437). Thus, the backfire effect of the fear appeal was not evident, and H3a was not supported. In the low-threat condition, participants reported higher believability when consumer involvement was high (M = 4.52, SD = 0.03) compared to low (M = 1.60, SD = 0.03; F (1,392) = 5556.36, p < .001), supporting H3b (Refer to Figure7).

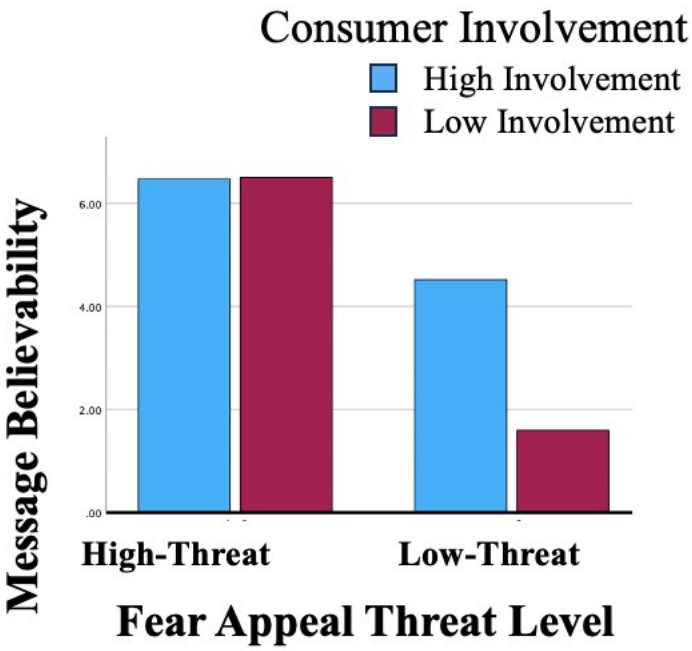

Figure 7: The main effect of fear appeal threat level and the moderating effect of consumer involvement on the believability of the advertising message

Downstream Consequences of Message Believability on Attitudes and Purchase Intentions

In this study, I focus on investigating the downstream consequences of message believability on consumer attitudes and purchase intentions. To investigate the influence of message believability on the attitude toward the campaign using PROCESS Model 7 (Hayes, 2017) with 5,000 bootstrapped samples.

The study examined the intricate relationships among fear appeal threat level as the independent variable, attitude toward the advertising campaign as the dependent variable, consumer involvement as the moderator, and message believability as the mediator. Upon analysis, the results indicated a significant indirect effect of fear appeals threat level on attitude toward the campaign through message believability as a mediator. The 95% confidence interval for the indirect effect (index = -2.80, 95% CI = [-2.92, -2.70]) excluded zero, providing evidence of a significant moderated mediation, thus supporting H4a. Notably, the inclusion of believability in the model did not render the direct effect of fear appeal threat level on attitude toward the campaign non-significant ($b = -0.25$, $t = -3.45$, $p < 0.001$), suggesting partial mediation by message believability (Refer to Figure 8).

After diving deeper into the components of the model, results demonstrated that fear appeal threat level significantly influenced the advertising message's believability ($b = 0.99$, $t = 11.27$, $p < 0.001$), with consumer involvement also exerting a significant effect on message believability ($b = 2.98$, $t = 33.76$, $p < 0.001$). The interaction between fear appeal threat level and consumer involvement further significantly impacted message believability ($b = -2.95$, $t = -52.99$, $p < 0.001$). Moreover, message believability was also significantly influencing the attitude toward the campaign ($b = 0.95$, $t = 52.91$, $p < 0.001$) (See Figure 8)

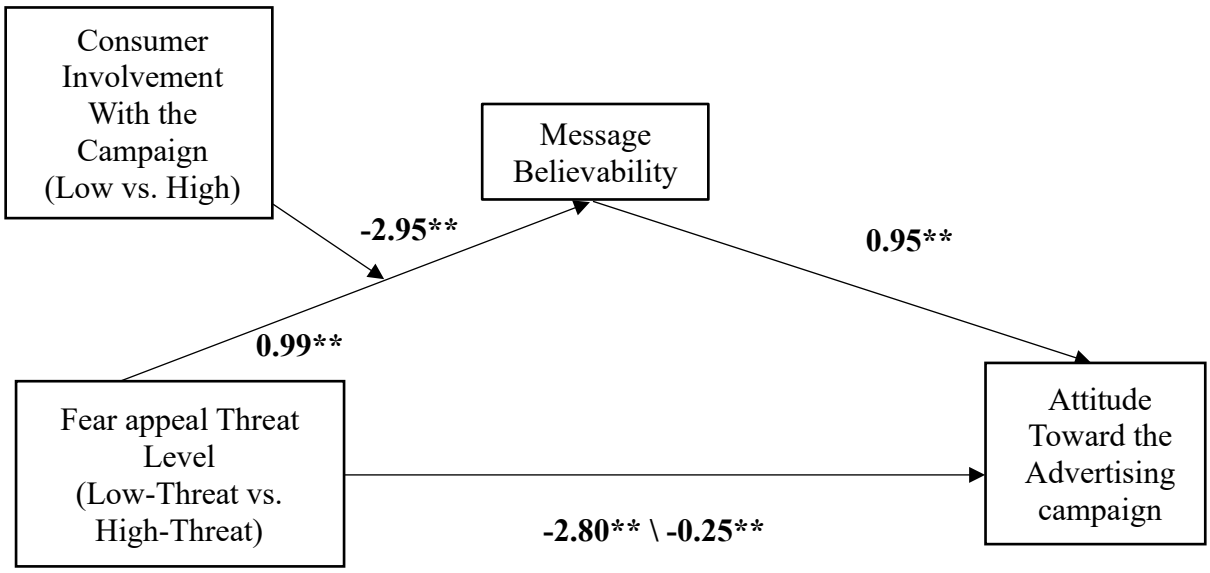

Figure 8: Downstream consequences of message believability on attitude toward the campaign
Note. **indicates p < .001, NS indicates non-significant.

Another moderated mediation analysis was performed to test the influence of message believability on the attitude toward the brand employing PROCESS Model 7 (Hayes, 2017) with 5,000 bootstrapped samples. The study examined the relationships among fear appeal threat level as the independent variable, attitude toward the promoted brand as the dependent variable, consumer involvement as the moderator, and message believability as the mediator. The examination of the indirect effect of fear appeal threat level on attitude toward the brand through message believability as a mediator unveiled a significant outcome, as evidenced by the 95% confidence interval for the indirect effect excluding zero (index = -2.85, 95% CI = [-2.96, -2.75]), thus substantiating the hypothesis (H4b) because of significant moderated mediation. Interestingly, the inclusion of believability in the model did not render the direct effect of fear appeal threat level on attitude toward the brand non-significant (b = -0.18, t = -2.31, p = 0.02), indicative of partial mediation by message believability. (Refer to Figure 9). After analysing the components of the model, the findings revealed that fear appeals threat level significantly impacted the advertising message's believability (b = 0.99, t = 11.27, p <0.001), with consumer involvement similarly demonstrating a substantial effect on message believability (b = 2.98, t =

33.76, p <0.001). Moreover, the interaction between fear appeal threat level and consumer involvement significantly contributed to the variation in message believability (b = -2.95, t = -52.99, p <0.001). Notably, the advertising message's believability also had a significant impact on the attitude toward the brand (b = 0.97, t = 50.97, p <0.001) (see Figure 9).

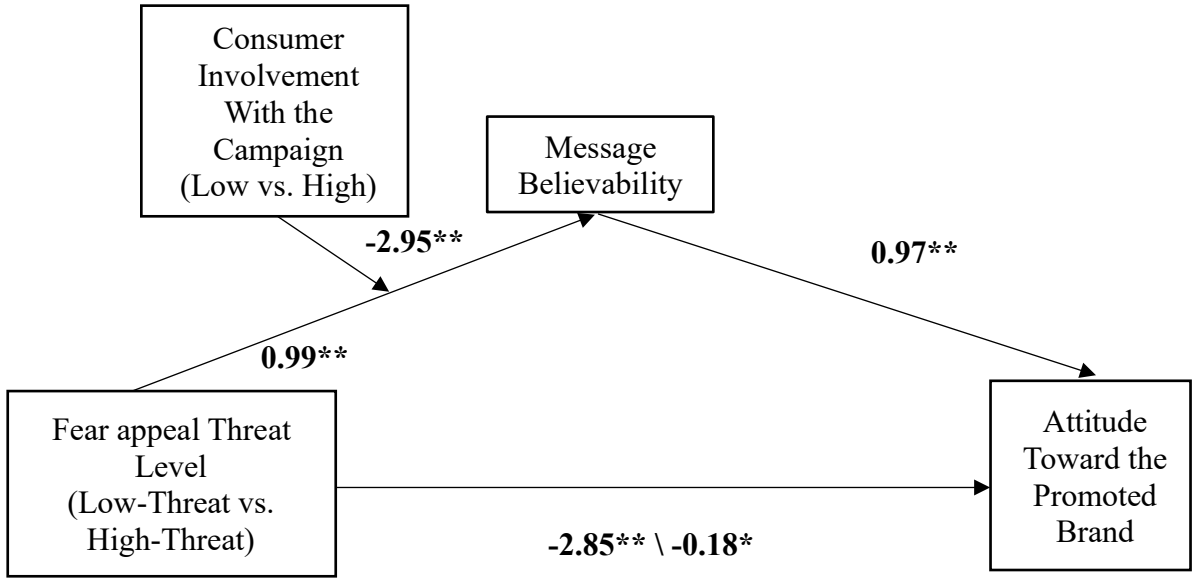

Figure 9: Downstream consequences of message believability on attitude toward the brand
Note. * Indicates p < .05, **indicates p < .001, NS indicates non-significant.

In the conclusive phase of my research, I conducted a moderated mediation analysis to scrutinize the influence of message believability on the purchase intentions of the brand, a moderated mediation analysis was conducted employing PROCESS Model 7 (Hayes, 2017) with 5,000 bootstrapped samples. The analysis included fear appeal threat level as the independent variable, consumer involvement as the moderator, message believability as the mediator, and purchase intentions of the promoted brand as the dependent variable. The analysis revealed that the indirect effect of fear appeal threat level on purchase intention through message believability as a mediator produced a significant result, as the 95% confidence interval for the indirect effect did not include zero (index = -2.89, 95% CI = [-3.00, -2.77]) suggesting that the moderated

mediation is significant thus supporting H4c. Furthermore, it was noteworthy that the inclusion of believability in the model made the direct effect of fear appeal threat level on purchase intention non-significant (b = -0.15, t = -1.90, p = 0.05), suggesting full mediation by message believability (Refer to Figure 10).

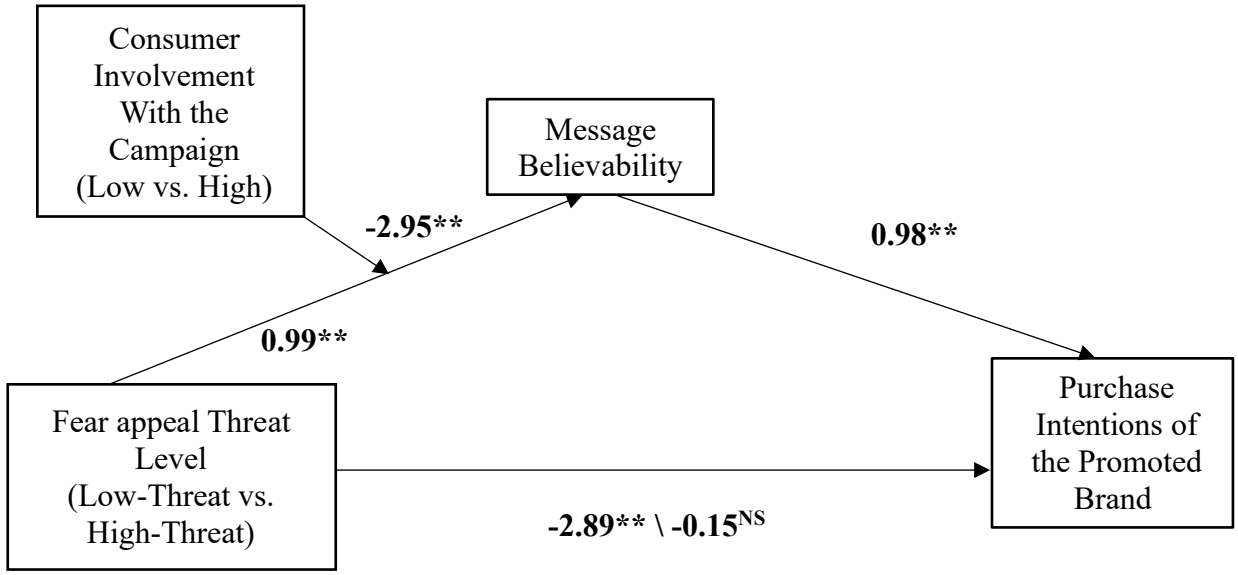

Figure 10: Downstream consequences of message believability on purchase intention
Note. **indicates p < .001, NS indicates non-significant.

While looking closer at the individual paths of the model, the analysis revealed that the fear appeal threat level had a significant impact on the advertising message's believability (b = 0.99, t = 11.27, p <0.001). Consumer Involvement with the campaign also had a significant impact on the advertising message's believability (b = 2.98, t = 33.764, p <0.001). Importantly, their interaction effect was also significant (b = -2.95, t = -52.99, p <0.001). Finally, the mediator, the advertising message's believability had a significant impact on the purchase intention (b = 0.98, t = 51.81, p <0.001) (See Figure 10)

General Discussion

This research endeavored to investigate several critical aspects related to the influence of fear appeals in advertising messages for eco-friendly fashion brands. The overarching research questions guiding this research were as follows: (1) What is the impact of high-threat versus low-threat fear appeals on the believability of advertising messages?; (2) How do promotion versus prevention-focused message framing and consumer involvement in a campaign moderate the relationship between fear appeal threat levels and consumers' believability in advertising messages?; (3) Does believability of the advertising message influence consumer attitudes and purchase intention toward eco-friendly fashion brands? I used an experimental approach to address these questions empirically.

The results from the pre-test confirmed the successful manipulation of fear appeal threat severity and message framing. However, the analysis of Study 1 did not uncover a significant main effect of fear appeal threat level on believability, leading to the failure to support H1. Nonetheless, a marginally significant interaction between fear appeal threat level and message framing emerged. Specifically, the findings revealed that in the high-threat condition, participants did not significantly differ in their perception of believability between prevention-focused and promotion-focused advertisements, contrary to the hypothesized expectation outlined in H2a. Conversely, in the low-threat condition, there was a marginal preference for promotion-focused advertisements over prevention-focused ones, offering marginal support for H2b.

Interestingly, Study 2's findings revealed that when the threat level presented in the appeal was high, the believability of the message was higher compared to when the threat level was low. These results provided support for H1 in Study 2. While Study 2's results support H1,

unlike Study 1, caution must be exercised due to potential compromised data quality from technical issues. Further validation of these findings is necessary to ensure their integrity and reliability, despite their initial alignment with theoretical expectations and prior research.

Subsequently, Study 2 delved into the moderating role of consumer message involvement on message believability and assessed its downstream consequences on attitudes and purchase intentions. The results of Study 2 indicated that when the fear appeal threat level was high, no significant disparity in believability emerged between participants with high and low involvement in processing the advertisement. This finding contradicted the backfire effect hypothesis (H3a), suggesting that consumer involvement did not significantly influence message believability under high-threat conditions. In contrast, when the fear appeal threat level was low, a noteworthy difference in believability was observed based on consumer involvement. Participants who exhibited high involvement in processing the advertisement reported significantly higher levels of believability compared to those with low involvement. This result provided support for hypothesis H3b, indicating that consumer involvement played a significant role in influencing message believability under low-threat conditions.

Study 2 yielded robust evidence supporting hypotheses H4a, H4b, and H4c, underscoring the pivotal role of message believability in shaping consumer attitudes and purchase intentions. Specifically, the analysis revealed that individuals exhibiting higher levels of message believability were more likely to develop positive attitudes toward the specific advertising campaign and the promoted brand. Moreover, the study findings demonstrated that heightened message believability positively influenced purchase intentions among participants.

In summary, the empirical findings of this research contribute insights into the dynamics of fear appeals in the realm of eco-friendly fashion advertising, shedding light on the intricate

interplay between fear appeal threat level, message framing, consumer involvement, message believability, and their consequent effects on consumer attitudes and intentions.

Theoretical Contributions and Practical Implications

Through the examination of fear appeals within the context of eco-friendly fashion brands, this study seeks to deepen the theoretical understanding of how such appeals operate, particularly within the unique landscape of sustainable fashion. This investigation aims to address specific gaps in the literature, particularly in understanding how fear appeals influence consumer trust against the backdrop of rising consumer skepticism associated with greenwashing practices (Adamkiewicz et al., 2022). Despite the prevalence of greenwashing, limited research exists on how to foster consumer trust amidst such deceptive practices (Wang & Walker, 2023). This study endeavours to fill this gap by examining the impact of low-threat versus high-threat fear appeals on consumer trust and intentions toward eco-friendly brands.

While existing literature has explored the moderating impact of message framing on fear appeals and their implications for message persuasion and consumer purchase intention (Kim, 2012; Lee & Aaker, 2004; Tannenbaum et al., 2015), very little attention has been paid to consumer trust as an outcome variable. Furthermore, limited studies have investigated the influence of consumer involvement in message processing on fear appeals. This study seeks to fill these gaps by examining the effect of fear appeals on consumer trust and considering the role of consumer involvement in message processing. In addition, the research extends prior investigations into the role of fear in promoting sustainable behaviour (Shen & Kim, 2020) by considering the impact of consumer involvement with the message.

Moreover, this study contributes to the comprehension of consumer responses within the fashion industry domain by delving into their reactions not solely to conventional environmental

issues, as commonly examined in prior research (Shin et al., 2017; Shen & Kim, 2020), but also to the health ramifications inherent in the fashion industry. By examining the impacts of fear appeals that highlight both environmental and health-related concerns, this study investigates how consumers react to such advertisement messaging.

From a managerial standpoint, this research provides valuable insights into navigating the intricate interplay of fear appeal threat levels and message framing within the fashion industry, especially amidst heightened consumer skepticism and prevalent greenwashing practices. While the study confirms that consumers generally find messages accompanied by high-threat fear appeals more believable than those with low-threat fear appeals (as per Study 2), it also uncovers a nuanced relationship regarding the moderating effect of message framing. Surprisingly, participants in the high-threat condition did not significantly distinguish between prevention-focused and promotion-focused advertisements in terms of believability, while in the low-threat condition, there was a marginal preference for promotion-focused advertisements over prevention-focused ones. These findings underscore the significance of meticulously considering both fear appeal intensity and message framing strategies when crafting advertising campaigns to effectively convey brand messages and foster consumer trust in sustainability efforts within the fashion industry.

Another crucial implication of the research is the role of consumer message involvement in shaping message believability, particularly under low-threat fear conditions. The findings suggest that when fear appeal threat levels are low, consumers with higher levels of message involvement are more likely to perceive advertising messages as believable. This underscores the importance of engaging consumers actively in the messaging process to enhance their trust. Brands can leverage this insight by creating interactive and immersive advertising experiences

that encourage consumer participation and engagement. For example, interactive online platforms or social media campaigns that invite consumers to share their sustainability stories or participate in eco-friendly challenges can enhance message involvement and reinforce believability. By fostering active participation, brands can strengthen consumer connections and bolster trust in their sustainability initiatives.

The societal impact of this research extends significantly into the realm of eco-friendly fashion. By investigating the factors that influence purchase intentions for environmentally sustainable brands, the study offers valuable insights for sustainable marketers and policymakers alike. Through an examination of communication design strategies, the research provides evidence-based approaches to enhance consumer attitudes and intentions toward eco-friendly fashion products. Policymakers and advocates can leverage this knowledge to design impactful campaigns and initiatives aimed at encouraging sustainable practices, especially within the fashion industry.

Limitations and Future Research

One potential limitation of this study arises from the unexpected findings in Study 1, where the anticipated main effect of fear appeal threat level on message believability was not confirmed. The absence of a significant main effect of fear appeal threat level contradicts the initial hypothesis (H1). One potential reason for the lack of predicted effect could be that the highly threatening stimuli (skin cancer with accompanying images) may have been perceived as overly alarming. Previous studies indicate that fear-based messages can demonstrate a curvilinear effect on consumer responses, resembling an inverted U-shape (Dillard et al., 2016). Where low-threat messages have little impact on consumer outcomes, moderate to high-threat messages have optimal impact, but excessively high-threat messages trigger defensive,

counterproductive reactions. It's plausible that using a less intense version of the high-threat stimuli could have yielded more promising results. It is also plausible that the believability of fear appeals does not solely depend on the level of threat evoked by the message, but rather on the interplay between the threat level and other factors, such as message framing. This would indicate that different threat levels would benefit from different message framing to optimize their effectiveness.

Additionally, while a marginally significant interaction between fear appeal threat level and message framing was detected, the main effects of threat level and message framing on believability were not observed in Study 1. Subsequent analysis revealed that in the high-threat condition, participants did not significantly differ in their perception of believability between prevention-focused and promotion-focused advertisements, contrary to the hypothesized expectation outlined in H2a. Conversely, in the low-threat condition, there was a marginal preference for promotion-focused advertisements over prevention-focused ones, offering partial support for H2b. These unexpected findings may be explained by participants potentially failing to accurately recognize or engage with the nuances of message framing, as suggested by the manipulation check results. It is plausible that participants did not fully comprehend or invest attention in processing the different message frames presented, thereby diluting the anticipated effects of message framing on believability. It is worth noting that the same stimuli were utilized in the pre-test, and the manipulation was successful. To address this limitation in future research, stronger manipulation of message framing could be implemented.

Also, it's important to note that I didn't account for individual differences in promotion versus prevention goal orientation in Study 1, which could potentially be a

significant oversight. Past research has shown that these individual differences significantly influence how people respond to prevention- versus promotion-framed messages (Lee et al., 2018). Our focus in this research has been from the perspective of brands, aiming to create advertising messages that aren't reliant on individual characteristics, as it's impractical in real-life scenarios to tailor messages to each individual. However, it's worth considering this potential construct in future studies and investigating whether it has any impact on the outcomes of the research.

Another limitation is that I did not find any backfiring effect of high-threat fear appeals in my research (Study 2). While these findings diverge from previous research on fear appeals, they align with some existing empirical evidence in this area (Tannenbaum et al., 2015). Several studies in the literature have failed to replicate the backfiring effect of high-threat fear appeals, suggesting various possible explanations. Some scholars argue that the backfire effect may be challenging to elicit consistently at the group level, or that it could be highly specific to particular items, situations, or individuals (Swire-Thompson et al., 2020). Additionally, there is debate over whether the backfire effect exists at all (Swire-Thompson et al., 2020). Moreover, it's plausible that the fear appeals utilized in this study were not sufficiently potent to induce a level of fear necessary to trigger the backfire effect (Henthorne et al., 1993). To address this limitation, future research could explore more potent fear appeals by manipulating factors such as perceived item importance or the use of vivid imagery to evoke higher levels of fear (Oberauer & Lewandowsky, 2019).

In Study 2, the research encountered technical glitches originating from the survey platform, Qualtrics, during the data analysis phase. These technical issues posed

challenges and potentially compromised the data which could have impacted the validity of the findings.

Additionally, the use of Amazon Mechanical Turk as the primary participant pool may introduce demographic biases, as Turkers may not be fully representative of the broader consumer base for eco-friendly fashion brands. While Turkers are acknowledged for their reliability (Goodman & Paolacci, 2017), caution is warranted in generalizing findings to potential consumers due to demographic differences between Turkers and the wider North American population. Future research should aim to replicate and extend these findings using more diverse and representative samples to enhance the external validity of the results.

Moreover, the thesis predominantly focuses on fear as a driving emotion in the promotion of fashion brands, and investigates its impact on consumer trust; overlooking the potential impacts of other emotions on consumer preferences for sustainable choices. Other negative (e.g., guilt, shame, sadness) and positive (e.g., hope, strength) emotions have been shown to play a role in impacting the sustainable behaviour of the consumer (Sharma et al., 2023) and future research should thus explore the role of a broader range of emotions and their impacts on consumer trust in the domain of eco-friendly fashion brands.

Furthermore, the limitation of exposing participants to advertisements only once in the study may deviate from real-life scenarios, where consumers typically encounter a brand's communications multiple times. Research suggests that repeated exposure to advertisements can lead to enhanced memory, familiarity, and liking for the brand or message, known as the mere exposure effect (Bornstein, 1989). Consequently, exploring multiple exposures in future studies could potentially strengthen the observed effects on

believability by reinforcing the persuasive message over time. Similarly, examining various advertising formats, such as print ads, online banners, and social media posts, could yield valuable insights into their differential impacts on believability. For instance, research suggests that interactive digital formats, such as social media ads or immersive experiences, may enhance consumer engagement and message processing, leading to higher believability compared to traditional print ads (e.g., Dwivedi et al., 2021). Therefore, expanding the study framework to include different advertising formats could provide a more nuanced understanding of how format-specific features influence the effectiveness of fear appeals in eco-friendly advertising.

Also, in the real world, consumer behaviour is influenced by a myriad of external factors that are not easily replicable in experimental settings. For instance, environmental cues, and social influences can all play significant roles in shaping consumer decisions regarding eco-friendly brands (Laroche et al., 2001). These contextual factors may interact with fear appeals in advertising in ways that are not fully captured in controlled experiments. Moreover, consumers' exposure to advertising messages in real-world settings is often accompanied by distractions, competing stimuli, and other environmental variables that can influence their attention, processing, and response to fear appeals (Carstensen et al., 2000). These real-world distractions and contextual factors may moderate the effectiveness of fear appeals, altering the magnitude of their impact on consumer beliefs and behaviours. Additionally, consumer decisions in the marketplace are often subject to time pressures, budget constraints, and other practical considerations that may not be present or adequately replicated in experimental settings (Roach et al., 2019). These situational factors can influence the salience of fear appeals and their persuasive impact on consumer attitudes and

behaviours. By incorporating measures of actual consumer behaviour within field studies, researchers can better capture the dynamic interplay between fear appeals and real-world contextual factors, providing a more nuanced understanding of their impact on eco-friendly brand choices.

Finally, the focus of this research on the fashion industry limits its generalizability to other sectors, such as technology and automotive, and food industries – also plagued with consumer skepticism and where consumer involvement is chronically high because of high prices, and recent health-conscious trends, respectively (Kreczmańska-Gigol & Gigol, 2022). Thus, future investigations should examine whether the findings extend to industries characterized by similar consumer behaviours or challenges. By examining the applicability of the findings beyond the fashion industry and across diverse sectors, researchers can contribute to a more comprehensive understanding of sustainable messaging and its impact on consumer behaviour.

In conclusion, this study provides valuable insight into the effectiveness of fear appeals in the realm of fashion brands and offers practical guidance for practitioners in navigating consumer skepticism and building trust within the context of sustainable branding, with potential societal impact in fostering sustainable consumption patterns. While further research is warranted to fully grasp the dynamics of sustainable behaviour, this thesis represents a crucial stride in aiding marketers to develop more effective marketing communications for eco-friendly fashion brands.

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Appendix A: Pre-test Materials

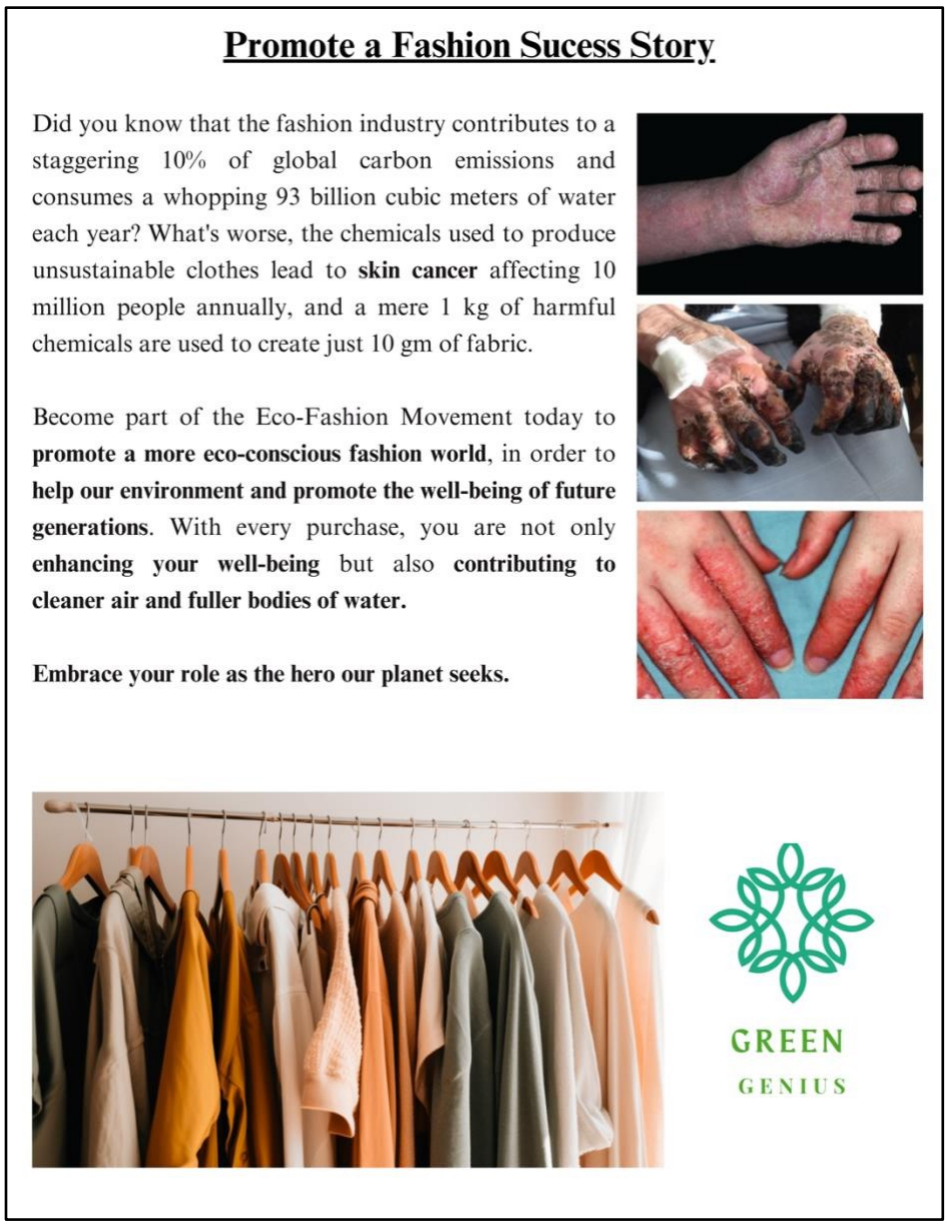

Figure 11: High threat with promotion-focused advertisement appeal

Figure 12: Low threat with promotion-focused advertisement appeal

Figure 13: Low threat with prevention-focused advertisement appeal

Figure 14: High threat with prevention-focused advertisement appeal

Appendix B: Correlation Analysis of Potential Co-Variates Used in Study 1

		bel_avg	Env_avg
bel_avg	Pearson Correlation	1	.444**
	Sig. (2-tailed)		<.001
	N	382	380
Env_avg	Pearson Correlation	.444**	1
	Sig. (2-tailed)	<.001	
	N	380	380
If available, how likely are you to buy a green products over regular (non-green) products?	Pearson Correlation	.091	.858**
	Sig. (2-tailed)	.368	<.001
	N	99	99
In the advertisement, there are images of clothing from our brand "Green Genius". How much did you like our brand's clothes?	Pearson Correlation	-.093	.247*
	Sig. (2-tailed)	.362	.014
	N	99	99
What is your gender?	Pearson Correlation	.044	.076
	Sig. (2-tailed)	.387	.140
	N	380	380
How would you rate your knowledge of English (e.g., reading)?	Pearson Correlation	-.064	-.013
	Sig. (2-tailed)	.212	.804
	N	380	380

Appendix C: AsPredicted- Pre-Registration for Study 2

'*Study 2: Threat appraisal and consumer involvement on believability in message*'
(AsPredicted #153999)

Created: 12/05/2023 07:20 AM (PT)

Author(s)
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1) Have any data been collected for this study already?
No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?
The main effects of threat appraisal and the moderating role of consumer involvement on consumer believability in the advertisement message

H1: When the threat appraisal in the fear appeal is high (versus low), the message's believability will be higher.
H2: When threat appraisal is low, the advertising message's believability will be higher in high (vs. low) consumer involvement condition. When the threat appraisal is high, there will be no significant difference in believability between high vs. low consumer involvement conditions.
H3a: High (vs. low) message believability will foster positive attitude toward the specific advertising campaign.
H3b: High (vs. low) message believability will foster positive attitude toward the promoted brand.
H3c: High (vs. low) message believability will increase their purchase intention of the promoted brand.

3) Describe the key dependent variable(s) specifying how they will be measured.
1. Believability in the advertising message
We will also examine the downstream consequences of message believability on attitude toward the specific advertising campaign; attitude toward the promoted brand; and purchase intention of the promoted brand

4) How many and which conditions will participants be assigned to?
We will employ a 2 (appeal type: high-threat appraisal Vs. low-threat appraisal) X 2 (consumer involvement: high Vs. low) between-subject design, where participants will be randomly allocated to one of the following conditions:
Condition 1: participants will be presented with a fear appeal that focuses on high-threat; high-involvement condition.
Condition 2: participants will be presented with a fear appeal that focuses on high-threat; low-involvement condition.
Condition 3: participants will be presented with a fear appeal that focuses on low-threat; high-involvement condition.
Condition 4: participants will be presented with a fear appeal that focuses on low-threat; low-involvement condition.

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.
We will run a one-way ANOVA to examine the main effect of threat appraisal on message believability, and two-way ANOVAs to examine the interacting effect of threat appraisal x consumer involvement on message believability. We will also conduct pairwise contrasts to see which differences in means are significant.
We will test for the downstream consequences of message believability on attitude toward the specific advertising campaign; attitude toward the promoted brand; and purchase intention of the promoted brand by using the PROCESS moderated-mediation analysis.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.
We will exclude participants who: 1) self-reported poor English proficiency, 2) wrote suspicious comments to researchers, 3) failed the attention check and manipulation check questions, and 4) reported encountering technical issues during the study.

7) How many observations will be collected or what will determine sample size?
No need to justify decision, but be precise about exactly how the number will be determined.
We will collect data from 400 participants from Amazon Mechanical Turk through CloudReserach. After removing participants who do not meet the exclusion criteria stated above from the analyses, if we do not reach a minimum of 100 participants per condition, we will post batches of 25 more participants until we reach a minimum of 100 participants per condition after exclusions.

8) Anything else you would like to pre-register?
(e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)
We plan to examine the possible covariance effects of the following variables: Environmental consciousness of the consumer and brand liking
Lastly, we will investigate whether completing the study on a smartphone adversely impacted data quality. If so, we will remove these participants from the analyses.

Appendix D: Consumer Involvement Manipulation for Study 2

Shape our advertising campaign and earn a chance to win a $20 bonus!

A new fashion label is aiming to build a strong, environmentally mindful brand identity, and is in the process of designing its first social media campaign. To ensure that the campaign resonates with its target market, the company is seeking the collaboration of several individuals, **just like You**.

Here's the deal: **You have been pre-selected to take part in this survey**. Your opinion of the campaign will help the fashion label finalize the advertisement before launch. Needless to say, your honest opinions and insight is extremely valued, and I appreciate your input. Remember that there is no one right answer to any of the questions you will be asked – I are simply seeking your true views and opinions.

Extra compensation: **Your participation will not only influence the development of the social media campaign, but also provide you with a chance to win a $20 bonus!** As a token of appreciation for your time and valuable input, you will have a chance to enter your MTurk ID into a raffle, where one lucky participant will be selected to receive a $20 bonus. The raffle will take place in a week (on December 12th), and if you are the lucky winner, $20 will be added directly to your MTurk account.

Please **carefully read and examine** the advertising campaign available in the **next slide**. After that, you will be asked to provide **your thoughts and opinions about the campaign**. I greatly appreciate your genuine and honest feedback.

Figure 15: Manipulation for high consumer involvement with the campaign

An eco-friendly fashion brand is launching a **new advertising campaign** that aims to inform. consumers about the often-overlooked negative health consequences of fast fashion. Please **carefully read and examine** the advertising campaign available in the **next slide**. After that, you will be asked to provide **your thoughts and opinions about the campaign**. I greatly appreciate your genuine and honest feedback.

Figure 16: Manipulation for low consumer involvement with the campaign

Appendix E: Correlation Analysis of Potential Co-Variates Used in Study 2

		Bel2_avg	IV
Bel2_avg	Pearson Correlation	1	-.848**
	Sig. (2-tailed)		<.001
	N	396	396
IV	Pearson Correlation	-.848**	1
	Sig. (2-tailed)	<.001	
	N	396	396
If available, how likely are you to buy green products over regular (non-green) products?	Pearson Correlation	-.074	.043
	Sig. (2-tailed)	.143	.392
	N	396	396
In the advertisement, there are images of clothing from our brand "Green Genius". How much did you like our brand's clothes?	Pearson Correlation	-.039	.021
	Sig. (2-tailed)	.433	.675
	N	396	396
What is your age?	Pearson Correlation	-.003	-.006
	Sig. (2-tailed)	.952	.906
	N	396	396
What is your gender?	Pearson Correlation	-.011	.009
	Sig. (2-tailed)	.823	.855
	N	396	396
How would you rate your knowledge of English (e. g., reading)?	Pearson Correlation	.026	-.056
	Sig. (2-tailed)	.600	.265
	N	396	396
On what device did you complete the survey?	Pearson Correlation	-.041	.003
	Sig. (2-tailed)	.414	.954
	N	396	396

**. Correlation is significant at the 0.01 level (2-tailed).