

Green Consumption and Message Framing

by

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ABSTRACT

While research on green consumption has typically investigated how people choose green over non-green products, this thesis investigates consumers' attitudes toward green product messages focusing on environmental vs. utilitarian value of product. The author argues that environmental (vs. utilitarian) appeals are more effective for consumers from socioeconomically defined lower classes because moral implications associated with environmental appeals provide a better opportunity for socioeconomically lower-class consumers to perceive their difference in terms of morality. Meanwhile, green product messages that focus on the utilitarian (vs. environmental) value of products may elicit stronger purchase intention for consumers who have higher (vs. lower) skepticism toward brands' environmental claims.

Key words: green consumption; message framing; green marketing; utilitarian message, environmental message

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INTRODUCTION

As green products have gradually become commonplace, companies are looking for strategies to gain competitive advantages over their competitors in selling green products. Green consumption is not only about environmental responsibility, and consumers may have various self-serving motivations in their sustainable actions. People may be motivated to consume sustainable products or services because they feel good about themselves when acting in a manner which benefits others (Tezer & Bodur, 2021), or because they want other people to perceive them as prosocial (Johnson, Tariq & Baker, 2018), or simply because they seek quality and excitement from this relatively new product category (Chrysohoidis & Krystallis, 2005; Flores & Jansson, 2022). Should companies respond to consumers' green product needs that go beyond the products' environmental value? In the current research, we try to answer this question by focusing on one specific consumer need in the green product category: namely, quality/utilitarian need.

Many consumers consider sustainability incompatible with quality (Newman, Gorlin & Dhar, 2014) and are unwilling to sacrifice quality for sustainability (Auger, Devinney, Louviere & Burke, 2008). Sustainability could even become a liability in product categories that value strength rather than gentleness (Luchs, Naylor, Irwin & Raghunathan, 2010). While it has been implied in research that emphasizing the quality (vs. environmental benefits) of green products may increase consumers' purchase intention (Newman, Gorlin, & Dhar, 2014), little has been done to investigate how and when to add utilitarian value to green product messages if companies decide to do so. What types of consumers are more responsive to environmental benefits claims? When would marketers need to shift consumers' focus to a green product's utilitarian value? This paper explores how consumers from different socioeconomic

backgrounds may show distinctive attitudes toward green product messages that focus on utilitarian (vs. environmental) value. We also investigate how consumers who usually have doubt toward the environmental claims of green products would respond to green product messages that emphasize utilitarian (vs. environmental) value.

We conducted two sets of studies to collect empirical evidence. In study 1, with two experiments, we demonstrate that consumers from the lower socioeconomic class are more likely to show higher purchase intention toward green products accompanied by environmental (vs. utilitarian) appeals because moral implications associated with environmental appeals provide them better opportunities to differentiate themselves in terms of morality. In study 2, also with two experiments, we show that the utilitarian value message becomes more effective (as compared to the environmental value message) as consumers' skepticism level toward brands' environmental claims increases.

CONCEPTUAL FRAMEWORK

Motivations For Green Consumption Behaviors

Consumers have various motivations for engaging in green consumption behaviors, and while some of these motivations are driven by environmental concerns, others may be influenced by factors irrelevant to environmental protection. First, people could be driven by their perceived responsibility to protect the environment. Many people believe sustainable actions are “morally good” (Venhoeven, Bolderdijk, & Steg, 2020). For instance, a significant number of Americans believe that humans have a moral obligation to act as stewards for all forms of life and natural resources, while the British tend to view addressing climate change as a social responsibility for

citizens (Leiserowitz, Kates & Parris, 2005). Accordingly, green consumption happens when consumers are driven by the intrinsic motivation to carry through on their environmental responsibilities (Venhoeven et al., 2020), and failing to fulfill these responsibilities may cause individuals to experience feelings of guilt or remorse (Davies & Gutsche, 2016). Second, different from the responsibility of finishing one's house chores, environmental protection actions are largely for the public interest and involve personal sacrifice, so owning and purchasing green products are considered altruistic and ethical (Mazar & Zhong, 2010), which further leads to an elevation of consumers' perceived social worth and makes them feel good about themselves (Giebelhausen, Chun, Cronin & Hult, 2016; Tezer & Bodur, 2021). Third, the altruistic attributes attached to green products work as external cues that prompt purchasing behaviors. Research has demonstrated that the desire for status and pro-social image management motivates the purchase of green products because the conspicuous display of costly altruism can build a prosocial reputation (Johnson, Tariq & Baker, 2018). Conspicuous display as the extrinsic drive for green consumption behaviors was further supported by studies showing that consumers are more likely to purchase green (vs. non-green) products when the acquisition happens conspicuously in a public context (Griskevicius, Tybur & van den Bergh, 2010). Fourth, hedonic motivations, the pursuit of fun, entertainment, and life enjoyment, were argued as important in directing sustainable actions such as taking shared transportation (Flores & Jansson, 2022) and green product purchases (Chryssohoidis & Krystallis, 2005). Consumers who seek novelty may find green products particularly exciting because the green product category is relatively new and unusual (Choi & Johnson, 2019). Lastly, being driven by the ethical attribute of products does not mean consumers do not attach the same importance to the functionality of green products. The pursuit of health and well-being serves as the fifth motivation for green

consumption behaviors, and this motivation is the main drive for food consumption from fair trade and organic sources that are often considered superior in nutritional value (Davies & Gutsche, 2016). Additionally, consumers, even those with high environmental consciousness, consider quality as a priority and are not willing to sacrifice quality for sustainability in the consumption of products such as soap and athletic shoes (Auger, Devinney, Louviere & Burke, 2008).

Green Product Marketing

Brands are compelled to create sustainable product lines because green products have become something that "...if you haven't got it then it would work against you, rather than if you have got it, it works for you." (Nicholls, 2002, p12). To go with the trend, many apparel brands such as Gap and Ralph Lauren, created their sustainable lines in the past few years, along with numerous new brands that were created to exclusively focus on sustainable products. Green product promotions mostly revolve around their moral value: the benefit for the environment. For instance, The Earth Polo, Ralph Lauren's green product line, focuses its product description on the material being used and the environmental-friendly process: "Designed with Mother Nature in mind, The Earth Polo is crafted from an innovative fabric made entirely from plastic bottles and dyed using a waterless process". Similarly, Girlfriend Collective, a brand that only uses sustainable materials, centers its product information on environmental value – "All of our leggings are ethically and sustainably manufactured from recycled post-consumer bottles, which curbs emissions and saves valuable resources compared to a conventionally-made virgin polyester pair." Marketers' use of environmental appeals has solid support from research. Appeals with moral implications have forceful persuasive power and have been used as a critical

tool by politicians across continents since the beginning of political history (Bonikowski & Gidron, 2016; Lipsitz, 2018). Products with environmental value carry strong ethical meanings and consumers perceive green consumption behaviors in moral terms (Mazar & Zhong, 2010). The degree of the perceived moral value of green products determines the altruistic warmth consumers feel and their attitude toward the products (Tezer & Bodur, 2021). Thus, it is not surprising that marketers find environmental appeals powerful marketing tools.

However, green and non-green are not two ends of the spectrum. The moral value of green products is not the only factor motivating green consumption behaviors, and consumers pursue other product values in their green consumption behaviors. From the perspective of eventually achieving environmental goals, green products must go beyond environmental benefits to gradually replace regular products, the failure of which would render green consumption temporary choices between green and non-green. Green products by themselves carry ethical implications, is it a better strategy to only emphasize their environmental value, as sustainable brands usually do, or to give more light to other values of the product? There might not be an easy answer to this question. On one hand, emphasizing product value that are not relevant to eco-friendliness caters to consumers' motivation to satisfy green-irrelevant needs and maximize gains from the product. However, on the other hand, according to the dilution model (Zhang, Fishbach & Kruglanski, 2007), incentivizing green-irrelevant goals might weaken the association between green products and consumers' sustainability goals. In marketing practices, some brands try to recognize consumers' needs beyond environmental concerns and explore the extra benefits green products can bring, such as "softest organic cotton" by Crann Organic, "made for compliments, and made to last forever" by Reformation, and "adds a dose of sophistication" by Naadam. However, since little is done to understand how to frame green product messages, as a

recent Forbes online article concluded: "...senior retail executives appear to have little understanding of consumers' preferences around sustainable offerings and shopping..." (Petro, 2022), marketers might find it difficult to move forward, either adhere to environmental appeals or shift their messaging to focus on other positive aspects of these products.

Consumer Background and Conspicuous Ethical Consumption

Previous research has provided evidence that consumer segments, based on their backgrounds, differ in their ethical activities. People in lower social classes, as defined by socioeconomic terms, tend to be more interdependent than those in the higher class (Manstead, 2018) and are more likely to refrain from unethical behaviors because they take others' benefits into consideration when making decisions (Cojuharenco, Shteyngerg, Gelfand & Schminke, 2012). When faced with moral dilemmas, socioeconomically higher-class individuals tend to choose utilitarian options while their peers in the lower class are more likely to follow moral intuitions (Cote, Piff & Willer, 2007). Socioeconomically lower-class people are more idealistic and less inclined to doubt morality assertions (Singhapakdi, Vitell & Franke, 1999), as shown in voting behaviors that the Republican party's moral propositions are especially attractive to the working class (Prasad et al., 2009). Following this line of research, we propose that green product messages that environmental value messages would be more effective for socioeconomically lower-class consumers, and we further propose that the perceived differentiation benefits of green products mediates the effect of green product messages on product attractiveness.

People *differentiate* themselves through consumption behaviors, such as that people show their wealth and difference from people through spending on luxury and expensive products (Veblen, 2009). Individuals from lower socioeconomic class do not like to feel inferior to their peers in

the higher hierarchy as defined by socioeconomic terms, and morality provides them the opportunity to get to the top (Lamont, 2000). By describing themselves as “poor but honest” (Kay & Jost, 2003), lower socioeconomic individuals differentiate themselves through their morality, and they also find moral appeals especially appealing (Prasad et al., 2009). Although green consumption behaviors (vs. the consumption of regular products) naturally reflect consumers’ morals (Johnson et al., 2018), products messages that focus on environmental value (vs. utilitarian value) of products should be perceived as facilitating one to differentiate oneself in terms of moral because emphasizing utilitarian value in product message may dilute the association between product and consumers’ moral goals (Zhang et. al., 2007).

Purchase Intention. Green consumption literature often uses purchase intention and/or willingness to pay as to measure the attractiveness of green products (Johnson et al., 2018; Tezer & Bodur, 2021). This research will use purchase intention for two reasons. First, socioeconomically lower-class consumers usually face financial constraints (Manstead, 2018), which may undermine their willingness to pay for products even though the products are attractive to them, thus rendering the willingness to pay an inaccurate metric to measure product attractiveness. Second, using only purchase intention to measure consumer attitude is consistent with some major green consumption works (e.g., Yan, Ken & Chen, 2020).

Accordingly, we propose the following hypotheses:

Hypothesis 1: Socioeconomically lower (vs. higher) social class consumers will have stronger purchase intention when exposed to an environmental (vs. utilitarian) appeal.

Hypothesis 2: The effect of socioeconomic class on the persuasive power of green product messages will be mediated by the perceived differentiation benefits such that environmental (vs. utilitarian) appeals serve as better vehicles for lower (vs. higher) socioeconomic individuals to feel their difference in terms of morality.

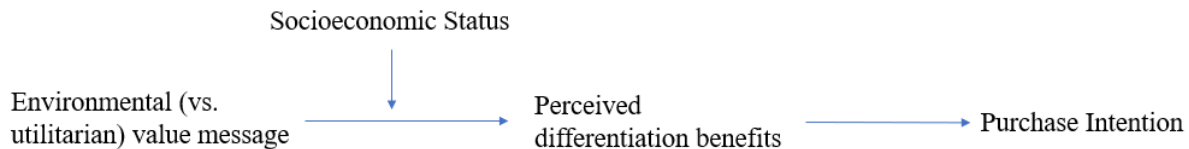


Figure 1. Proposed moderated mediation process for the effect of message type on purchase intention.

Skepticism toward Green Consumption Claims

Along with the increasing popularity of green products, many brands have been reported as being dishonest or misleading in their environmental claims, the so-called greenwashing. Media reports of such misconduct raise consumer skepticism and discourage consumers from green purchasing (Nyilasy, Gangadharbatla & Paladino, 2012). Studies further found that environmentally conscious consumers trust products with environmental claims less because of their skepticism toward these claims (Ulusoy & Barretta, 2016). Skepticism may render environmental appeals powerless, so some practitioners even suggest not using sustainability as a marketing tool as it may arouse suspicion (Nicholls, 2002).

The effectiveness of green product messages that enhance the benefits products can bring to the environment depends on consumers' trust in these claims and consumers who are usually skeptical of brands' environmental claims would find it hard to trust green products messages that focus on environmental benefits. On the contrary, green product messages focusing on the

utilitarian (vs. environmental) value of green products alleviate the affect of consumer skepticism for two reasons. First, by focusing on utilitarian value of products, eco-friendliness becomes an attribute instead of the whole point of the product, so consumers who are usually suspicious of brands' environmental claims rely less on their skepticism to make a judgment of the product. Second, superior utilitarian value of products fit into the sustainability philosophy of "make the most out of materials" (Haws, Winterich, & Naylor, 2014), making utilitarian (vs. e.g., hedonic) value messages a natural compatibility with green products. Thus, compared to utilitarian value messages, as consumers' skepticism increases, the effectiveness of environmental value messages would decrease, leading to lower purchase intention of green products.

Accordingly, we put forward our hypothesis 3.

Hypothesis 3: The stronger (vs. weaker) consumers' skepticism toward brands' claims on environmental benefits of products, the lower (vs. higher) purchase intention they have toward green products that carry environmental (vs. utilitarian) value messages.

RESEARCH DESIGN AND FINDINGS

Overview

Through two sets of experiments, we investigated the effect of utilitarian versus environmental value messages on consumers' purchase intention toward green products. We chose to use an online apparel product, a hoodie, to run these experiments for a couple of reasons. First, apparel as a consumer product can have environmental and utilitarian value at the same time. Second, apparel products are suitable for online surveys as many apparel brands sell online, and online distribution is especially popular among emerging sustainable brands. For example, of the 15

sustainable clothing brands ranked as best by CNN Underscored (Burkhardt, 2022), about half have fewer than 5 physical stores or none at all.

In study one (1A and 1B), we show that socioeconomically lower-class participants have a stronger purchase intention for green products when exposed to the environmental (vs. utilitarian) value message because the environmental value message can better differentiate socioeconomically lower-class participants in terms of morality. In study two (2A and 2B) we show that the more skeptical consumers are toward brands' claims on products' environmental benefits, the lower purchase intention they have toward green products with environmental (vs. utilitarian) value messages.

Study 1A

Our goal for study 1A is to test how socioeconomic social class moderates the effect of green product messages (i.e., environmental vs. utilitarian) on consumers' purchase intention.

Method: Two hundred and one respondents were recruited for a paid online survey through Amazon Mechanical Turk (35.5% female; average age 25-34; average annual household income \$40,000 - \$75,000; average education level: associate's degree). We randomly assigned participants to one of two groups: those receiving an environmental value message or those receiving a utilitarian value message. Participants were asked to imagine that they were looking for a piece of clothing and saw a product made with recycled cotton having a product description focusing on either environmental or utilitarian benefits. Messages for the two groups can be found in Table 1.

Table 1

Study 1A. Messages for Two Experimental Groups.

| Moral value message | Utilitarian value message |
|--|---|
| Made with 100% recycled cotton that would otherwise end up in landfills. Recycling cotton saves water, energy and decreases carbon dioxide emissions compared to conventional cotton production. The more you use, the more you protect. | Made with 100% recycled cotton. Everyday essentials that feel soft on your skin. Great for layering, pairs well with everything and is an ideal companion all year long. Made to last a lifetime. The more you use, the more value you get. |

Consumers' purchase intention was then measured using "how likely/unlikely are you to purchase this piece of clothing" (Spears and Singh 2014). Lastly, before demographic information was collected, participants were asked to choose the product description they saw at beginning of the survey as a manipulation check.

In study 1 we used educational attainment to measure participants' socioeconomic class for the following reasons: First, educational attainment has been often used as the proxy for social class in the literature (Kraus, Côté, & Keltner, 2010; Snibbe & Markus, 2005). Second, using education to index social class has the major advantage of stability (Elo, 2009). Many people were forced to work as MTurkers as an alternative way to make a living as they lost their employment due to the pandemic (Arechar & Rand, 2021; Moss, Rosenzweig, Cheskie & Litman, 2020), and their current incomes and occupations may have become too transient to determine their social class. To measure participants' educational levels, we asked participants the question in the demographic part of the questionnaire, and the question includes eleven education levels: no schooling completed; nursery school to 8th grade; some high school, no diploma; high school graduate diploma or the equivalent; some college credit (no degree); trade/technical/vocational training; associate degree; bachelor's degree; master's degree; professional degree; and doctorate degree (Torpey, 2018). Among these educational attainments,

an associate degree is an undergraduate degree awarded upon completing two to three years of post-secondary study.

Results. For each group, the majority of participants correctly chose the message they were shown at the beginning of the experiment (76.5% and 72.5% for utilitarian and environmental message groups respectively). A 2-way crosstab Chi-Square analysis shows a significant result with $p < 0.001$, suggesting the participant groups and messages they chose are associated with each other.

It is noteworthy that our study contained disproportionately more male than female participants (64.5% vs. 35.5%), which may affect our analysis as male consumers have consistently been reported as less inclined to get involved in green consumption behaviors than females (e.g., Brough et al., 2016; Zelezny, Chua & Aldrich, 2000). Additionally, consistent with prior findings, across the two groups, our female participants reported an overall marginally higher purchase intention toward the hoodie than male participants did (1.75 vs. 1.45, $p < 0.1$). Therefore, gender was added as a control variable in our subsequent analysis, although the removal of the control variable does not affect the results.

To analyze how the two groups from different social classes responded differently to the environmental value message as compared to the utilitarian value message, we set the utilitarian value group as the reference (coded 0) used linear regression model to test the moderation effect of education level on participants' purchase intention. As illustrated in table 2, comparing to the utilitarian group, environmental message by itself has a positive marginal significant effect on purchase intention. Also, consistent with previous findings (e.g., Zeynalova & Zamazova, 2022), participants show stronger purchase intention toward green products as their educational level

increases. At the same time and more importantly, as shown by the interaction between education and group, comparing to the utilitarian group, education has a diminishing effect ($b = -0.33, p < 0.1$) on purchase intention when the message focuses on environmental value of product, indicating that the environmental (vs. utilitarian) value message leads to higher intention to purchase as participants' education level decreases, which thus provides preliminary support for the first hypothesis.

Table 2

Study 1A. Simple and interactive effect of message type and education on purchase intention.

| Path | Beta | t-Statistic | p-Value |
|--|-------------|--------------------|----------------|
| Message type → purchase intention | 2.47 | 1.69 | 0.09 |
| Education → purchase intention | 0.5 | 3.16 | <0.01 |
| Message type × education → purchase intention | -0.33 | -1.83 | 0.07 |

Study 1B

In study 1B, the objective is to test how consumers' socioeconomic social class affects the effectiveness of green product messages (i.e., environmental vs. utilitarian) in a more realistic online shopping setting, as well as to establish the proposed meditation process: the perceived differentiation effect. To examine how consumers respond to messages that do not contain environmental or utilitarian value messages, this study included a control condition that does not include either of the two types of messages, as in Table 2.

Method. It was decided in advance to recruit 240 participants (80 participants for each condition). A total of 248 respondents were recruited for a paid online survey through Amazon Mechanical Turk (40% female; average age 25-34; average annual household income \$40,000 -

\$75,000; average education level: associate’s degree). We randomly assigned participants to one of the three conditions: an environmental value message group, a utilitarian value message group, and a control group. Participants were asked to imagine that they were looking for a piece of clothing and saw a hoodie (with a picture) made of recycled cotton with a product description that contains environmental benefits or utilitarian value, or none. We also added a cart button and product sizes to make it look more realistic as shown in detail in Appendix A. Messages for the three groups can be found in Table 2.

Table 3.

Study 1B. Messages for Three Groups.

| Moral value message | Utilitarian value message | Control |
|--|---|---------------------------------|
| Made with 100% recycled cotton that would otherwise end up in landfills. Recycling cotton saves water, energy and decreases carbon dioxide emissions compared to conventional cotton production. The more you use, the more you protect. | Made with 100% recycled cotton. Everyday essentials that feel soft on your skin. Great for layering, pairs well with everything and is an ideal companion all year long. Made to last a lifetime. The more you use, the more value you get. | Made with 100% recycled cotton. |

Subsequently, consumers’ purchase intention was measured using a two-item scale. The first item “How likely/unlikely are you to purchase this hoodie?” is borrowed from Spears and Singh (2014), and we added “How interested are you in trying on this hoodie?” as the second item. We added “try on” as a measurement of purchase intention because it is easier for consumers to predict whether they would try than whether they would buy (Morwitz, Steckel & Gupta, 2007), and the interest in trying on a piece of clothing is the showing of an initial purchase intention and

an antecedent of real purchase behavior (Huan & Cheng, 2015). We then measured the perceived differentiation benefits of the product using a 2-item scale “the product reveals a bit of who I am” and “the product differentiates me from others” adapted from luxury and status differentiation literature (Dubois, Laurent & Czellar, 2001).

We also measured altruistic warmth (Tezer & Bodur, 2021; Venhoeven et al., 2020) as an alternative mediator. Lastly, before asking for participants’ demographic information, we asked participants to choose the product description they saw at beginning of the survey as the manipulation check.

Results. For each group, the majority of participants correctly chose the message they were shown at the beginning of the experiment (51.2%, 54.1%, and 53.6% for control, environmental, and utilitarian message groups respectively). A 2-way crosstab Chi-Square analysis shows a significant result with $p < 0.001$, suggesting the participant groups and messages they chose are associated.

The dependent variable, purchase intention, was calculated by averaging the two-item scale ($\alpha = 0.87$). The utilitarian value message group was used first as the reference to test hypothesis 1. Linear regression model was used to test the moderation effect of education level on participants’ purchase intention and message group was treated as multi-categorical. The comparison between utilitarian and environmental as well as control groups was illustrated in Table 4. Education has a simple effect on purchase intention ($p < 0.001$), confirming findings from previous research (e.g., Zeynalova & Zamazova, 2022). As compared to the utilitarian value message, environmental value message positively affects participants’ purchase intention ($p < 0.05$). However, as measured by the interaction effect between group and education, compared to the utilitarian

message, the environmental value message has a diminishing effect on participants' purchase intention as their education level increases ($b=-0.47$, $p<0.05$), which supports the first hypothesis.

Table 4.

Study 1B. Simple and interactive effect of message type and education on purchase intention.

| Path | Environmental | | | Control | | |
|---|---------------|-------------|---------|---------|-------------|---------|
| | Beta | t-Statistic | p-Value | Beta | t-Statistic | p-Value |
| Message type → purchase intention | 4.2 | 2.37 | 0.02 | 2.47 | 1.69 | 0.08 |
| Education → purchase intention | 0.56 | 3.59 | <0.01 | 0.56 | 3.59 | <0.01 |
| Message type × education → purchase intention | -0.47 | -2.08 | 0.04 | -0.32 | -1.67 | 0.1 |

A spotlight analysis was performed to determine the effect of the environmental value message on participants at different levels of education, as needed to directly test Hypothesis 1. The mean, one standard deviation below and above the mean of education level are 7.75, 6.47, and 9.03 respectively. As shown with table 5, compared to the utilitarian value message, environmental value message leads to higher purchase intention when participants' educational level is at mean or one standard deviation below mean, and hypothesis 1 is thus supported.

Table 5

Study 1B. Spotlight analysis at mean, and $\pm 1SD$ of mean.

| Education | Environmental | | Control | |
|-------------|---------------|---------|---------|---------|
| | Beta | p-Value | Beta | p-Value |
| -1SD (6.47) | 1.21 | <0.01 | 0.59 | 0.12 |
| Mean (7.75) | 0.57 | 0.03 | 0.15 | 0.58 |
| +1SD (9.14) | -0.07 | 0.87 | -0.29 | 0.44 |

Because education levels with decimal points are not feasible in the real world, so an additional spotlight analysis was done at education levels of 6 (trade/technical/vocational training), 7 (associate degree), 8 (bachelor's degree), and 9 (master's degree). At the educational level of 6, when compared to the utilitarian value message, the environmental value message has a significant positive effect on the participants' purchase intention ($b=1.4$, $p<0.01$). The effect is similar at the education level of 7, with $b=0.93$ ($p<0.01$). However, when the education level of 8 is reached, the effect of the environmental value message on purchase intention became insignificant, and the trend continues when the education level reaches 9.

The group falls between utilitarian and environmental message groups at lower end of educational level and converge with the two at the higher end. At the education level of 6, when compared to the utilitarian value message, the control group message has a marginally significant positive effect on participants' purchase intention ($b=0.7$, $p<0.1$). In addition, there is no significant difference between the utilitarian value message group and the control group at education level 7 or above, with control group fall in between of utilitarian and environmental groups. Figure 2 shows the spotlight analysis results for education levels from 6 (trade/technical/vocational training) to 9 (master's degree).

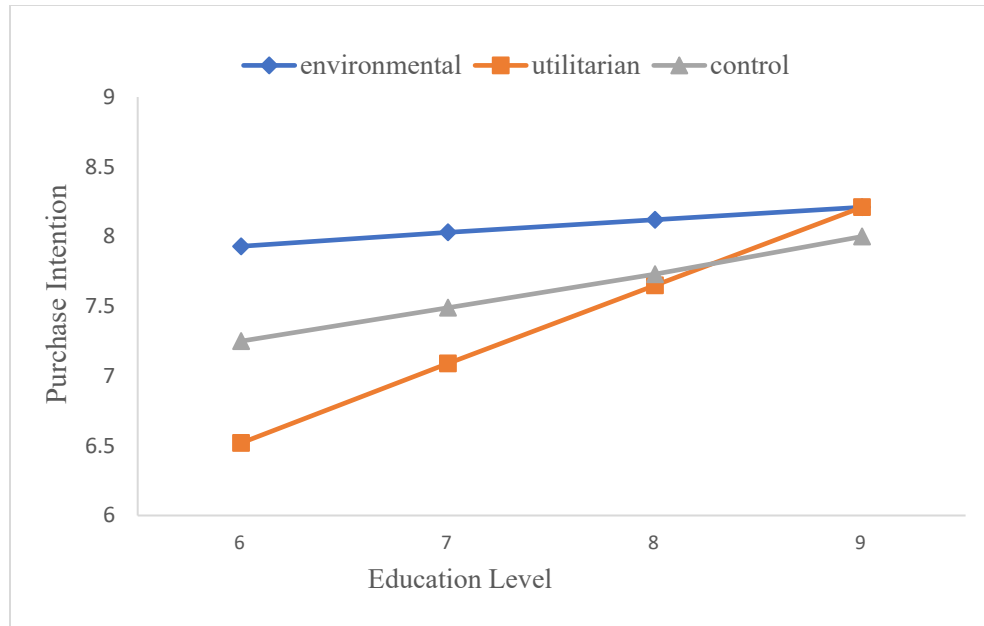


Figure 2. Spotlight analysis at different educational attainments.

Accordingly, hypothesis 1 is supported. Lower-educated consumers may find green product messages that revolve around the environmental benefits of products more favorable than messages that focus on the utilitarian value of products. When a consumer's education level is below bachelor's degree, the green product message with environmental benefits leads to higher purchase intention than the message that focuses on utilitarian value does.

To test the mediation process associated with Hypothesis 2, we used Hayes' PROCESS model 8 (Hayes, 2018) and the utilitarian value message group was used as the reference.

The Perceived Differentiation benefits. The two items for perceived differentiation benefits scale ($\alpha = 0.62$) were averaged to get the value for the proposed mediator. We found a significant main effect of the product with environmental value message on the perceived differentiation benefits of the product ($a_3=2.07, p<0.05$), meaning that participants perceive the green product with message that focus on benefits to environment can better differentiate themselves from others. In

addition, educational level moderates the effect of environmental appeal on the perceived differentiation benefits of the product ($a_4=-0.24$, $p<0.05$) in a way that the higher the educational level, the less participants perceive the green product with environmental (vs. utilitarian) value message can serve to differentiate themselves. We also found that the perceived differentiation benefits significantly affect participants' purchase intention toward green products ($b_2=1.05$, $p<0.001$), and environmental appeal does not directly affect purchase intention. The moderated mediation index is -0.27 with a 95% bootstrap confidence interval of $[-0.56, -0.004]$.

Accordingly, hypothesis 2 is supported. Although the environmental value message can lead to a stronger perceived differentiation benefits than the utilitarian value message, the effect is countered as participants' education level increases. Lower-educated participants perceive that the green product with environmental value message can better differentiate themselves than one with utilitarian value message, and they thus show a stronger purchase intention toward the green product with an environmental value message.

Additionally, we tested altruistic warmth as the alternative mediator separately. We found that utilitarian warmth directly affects participants' purchase intention, which is consistent with findings from previous research. However, it does not affect the mediation process as established above.

The moderated mediation process is shown in figure 3.

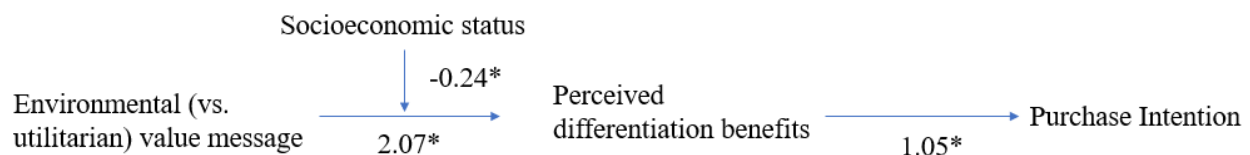


Figure 3. Moderated mediation process for the effect of environmental value message on purchase intention.

Discussion. Study 1 found that the environmental value product message leads to higher intention to the green product than the utilitarian value product message for consumers from socioeconomically lower social classes, as proxied by educational attainment. We also found that the perceived differentiation benefits mediates the effect of the environmental value message on purchase intention. Specifically, socioeconomically lower-class consumers may show stronger purchase intention toward a green product with message focusing on the moral value of products than one with utilitarian value message because they perceive that the product with environmental value message provides better opportunity to show their difference in terms of morality. Meanwhile, an increase in consumers' socioeconomically social class would elevate the attractiveness of the utilitarian value messages as compared to moral value messages.

Discussion. Consistent with prior findings, study 1 found that consumers from higher socioeconomically higher classes, as proxied by educational attainment, exhibit stronger purchase intention toward green products. However, the pattern could be broken by adopting environmental (vs. utilitarian) appeals to cater to socioeconomically lower-class consumers' needs to differentiate themselves in terms of morality. Specifically, consumers from lower socioeconomic backgrounds would find green products with environmental (utilitarian) appeals more appealing because the ethical implications with environmental appeals give them better opportunity to perceive their difference in terms of morality. At the same time, utilitarian (vs. environmental) value messages would lead to lower purchase intention for consumers from lower socioeconomic backgrounds, but the purchase intention of higher socioeconomic consumers stays not affected by message types.

In study 2 we will test hypothesis 3: how consumers' attitudes toward green product messages can be affected by skepticism.

Study 2A

Method. We recruited 190 student participants (50% female, $M_{age}=21$) from a student subject pool at the marketing department of University of Manitoba, and students participated in exchange for bonus course credit. Participants were randomly assigned to two green product message conditions: environmental vs. utilitarian. Because the visual presentation of products can form participants' perceptions before they comprehend messages (Johnson, 2004), and the characteristics of the product as the picture presents may interact with the associated message, we decide to remove pictures for study 2 to better understand how messages affect consumers' perception of products. Except for the picture, same as in study 1B, participants were shown the product name "Hoodie" along with a product, available sizes, and a "add to cart" button. To gain more insight into consumers' responses to both messages, participants were also asked to type a few words about their impressions of the product. We measured purchase intention using the same 2-item scale as in Study 1B. We then measured consumers' skepticism toward brands' general environmental claims by a 3-item 5-point Likert scale (Mohr, Eroğlu & Ellen, 1998): "claims are true" (reverse coded), "are intended to mislead", and "do not believe". The scale can be found in Appendix 2. Finally, we did a manipulation check by asking participants to choose the message they were shown and asked demographic questions.

Results: For each experimental group, most participants correctly chose the message they were shown in the beginning of the survey (88.5%, and 90.7% respectively for moral and utilitarian message groups). A 2-way crosstab Chi-Square analysis shows a significant result with $p<0.001$,

suggesting that the participant groups and messages they chose are associated with each other. One-way ANOVA was used to compare the mean skeptical level between the two groups (3.05 vs. 3.2), and we did not find a difference ($p > 0.1$), meaning participants' skepticism toward brands' general environmental claims was not affected by the manipulation.

Moderation. To compare the two groups, we first coded the environmental value group as 0 and the utilitarian value message group as 1, and we used Hayes' PROCESS model 1 (Hayes, 2018) to test hypothesis 3. The three items of the skepticism scale ($\alpha = 0.65$) were averaged and used as the skepticism value in this study. The dependent variable, purchase intention, was derived from the average of the two-item measurement scale ($\alpha = 0.85$). We found that participants' skepticism level has a significantly negative main effect on their purchase intention toward the green product ($b = -0.49$, $p < 0.05$). At the same time, compared to the environmental value message group, the interaction between participants' level of skepticism and the utilitarian value message group has a significant positive effect on participants' purchase intention toward the green product ($b = 0.77$, $p < 0.01$), which indicates that the higher of participants' skepticism level toward moral claims, the more attractive utilitarian value messages are, which is what we proposed with hypothesis 3.

We then did a spotlight analysis to determine the effect of product messages on participants having different levels of skepticism. The mean, one standard deviation below and above the mean of skepticism are 3.14, 2.31, and 3.97 (out of 5) respectively. The spotlight analysis shows that participants' purchase intention does not vary significantly between the environmental and utilitarian value message groups when participants' skepticism level is at or one standard deviation below the mean. However, when participants' skepticism level is at one standard

deviation above the mean, the utilitarian value message shows a significantly positive effect on purchase intention as compared to the environmental value message ($b=0.77$, $p<0.05$).

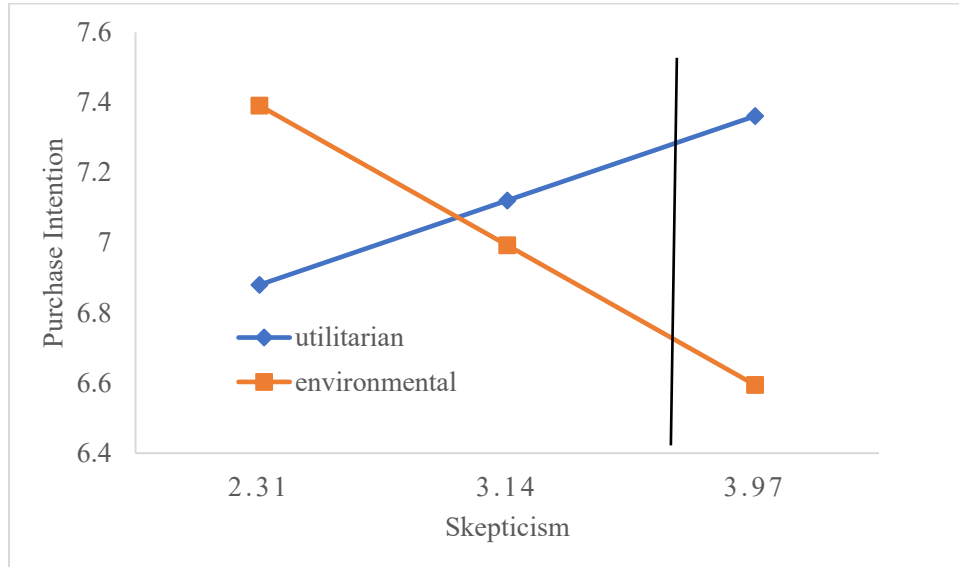


Figure 4. Spotlight analysis results with skepticism level at mean and ± 1 standard deviation of mean.

Since spotlight analysis has shown that the utilitarian value message leads to stronger purchase intention than the environmental value message does when participants' skepticism level is at the high end, we further applied the Johnson-Neyman technique (Spiller, Fitzsimons, Lynch & McClelland, 2013) to identify the turning point at where the difference becomes significant. We found that when participants' skepticism level reaches 3.71, or 0.69 standard deviation above the mean, the utilitarian value message starts leading to stronger purchase intention than the environmental value message. In other words, when participants' skepticism level is below 3.71, the utilitarian value message and moral value message are equally effective to consumers; however, when their skepticism level reaches 3.71 or above, the utilitarian value message becomes more effective. Figure 4 depicts the spotlight and Johnson-Neyman analysis results.

Study 2B

The main purpose of study 2B is to replicate Study 2A.

Method: Study 2B used 176 students from a student subject pool at the marketing department of University of Manitoba, Canada, and they participated in exchange for partial course credit.

Results: Manipulation check shows that most participants (93% and 86% for utilitarian and moral value message groups respectively) correctly chose the message they saw at beginning of the survey. A 2-way crosstab Chi-Square analysis shows a significant result with $p < 0.001$, suggesting the participant groups and messages they chose are associated with each other.

Same as with study 2A, to compare the two groups, we first coded the moral value group as 0 and the utilitarian value group as 1, and results show that an increase in participants' skepticism level would lead to lower purchase intention toward the green product ($b = -0.63$, $p < 0.05$), which is consistent with findings in study 2A. At the same time, as measured by the interaction between message type and participants' skepticism toward environmental claims, when compared with environmental value message, the utilitarian value message leads to stronger purchase intention toward the green product when participants' skepticism level increases ($b = 0.7$, $p < 0.1$), providing additional support for hypothesis 3.

Discussion. Study 2 provides strong evidence that consumers' skepticism level is related to the effectiveness of green product messages. First, both 2A and 2B demonstrate that consumers' skepticism toward brands' environmental claims would negatively affect their intention to purchase a green product when the green product is accompanied by a message focusing on environmental benefits. Second, between the utilitarian and moral value messages, the utilitarian

value message becomes more effective as consumers' skepticism increases, and the environmental value message becomes less effective as consumers' skepticism increases.

GENERAL DISCUSSION

Contributions and Managerial Implications

While research on green consumption has typically analyzed when and why people choose green over non-green products, in this research, we investigate how different appeals (i.e., environmental vs. utilitarian) influence people's purchase intention. We demonstrate that when a green product has a message that focuses on its environmental benefits, socioeconomically lower-class consumers would find the green product more attractive than when it has a utilitarian value message, which is because green products with moral claims serve as better vehicles than products with utilitarian messages for socioeconomically lower-class consumers to differentiate themselves in terms of morality. In addition, compared to the moral value message, the utilitarian value message becomes more effective when consumers raise skepticism toward brands' environmental claims.

The findings from this research deepen our understanding of green consumption. First, although were attached strong implications since their inception, green products can and should meet consumers' needs that go beyond environmentalism. At the same time, green marketing is not only between green and non-green but also within green products themselves. Since little research has been done on how to compose messages that respond to consumers' various motivations, this research provides some initial evidence that green product messages can go beyond environmentalism. While past research on green consumption focuses on how to prompt consumers to go green (vs. non-green) (Tezer & Bodur, 2021; Davies & Gutsche, 2016), we start

from the perspective that green products need to meet consumers' non-green consumption motivations as such products become more available and accessible. Focusing on the environmental value of green products may not make the green product more attractive to consumers from socioeconomically defined middle and higher social classes than adding utilitarian value to the green product messages does. At the same time, focusing on the green product's utilitarian value may alleviate the side effects of consumers' skepticism toward brands' environmental efforts. Second, this research adds to the literature arguing that the moral implications with green products can bring customer benefits such as elevating social worth and building a prosocial image (Johnson et al., 2018; Stiefenhofer, 2019). Just as moral claims in politics are especially effective to socioeconomically lower-class voters (Prasad et al., 2009), green products with strong ethical implications are more attractive than those with utilitarian claims to consumers from socioeconomically defined lower class because these products provide them an opportunity to feel different in terms of morality. Third, this research extends the line of literature studying greenwashing and consumer skepticism. Prior research has found that moral claims may harm brands when consumers do not trust companies' sustainability efforts because of some brands' misconduct (e.g., Nyilasy et al., 2012), and this research tries to provide insight into solving this problem. We show that by focusing on the utilitarian value of products, consumers' attitudes toward green products are less likely to be affected by their pre-existing disbelief in brands' environmental claims. Because products' utilitarian value matches the sustainability philosophy of "make the most out of materials" (Haws et al., 2014), emphasizing utilitarian value over environmental benefits in green product messages may lead to favorable attitudes toward these products without compromising the perceived environmental value of green products.

Managerially, our findings provide additional insights regarding promoting sustainable behavior in general. For example, would attaching stronger ethical implications to recycling or energy saving increase such behaviors among lower-class neighborhoods? For green consumption specifically, our findings provide evidence that it is necessary to segment consumers when promoting green products as consumers from different backgrounds may have distinctive motivations for their green consumption behaviors. One may argue that lower-class consumers are not typical green consumers due to the high cost and lower-class consumers' low need for differentiation (Yan, Keh & Chen, 2021). But we would like to argue that green consumption by itself is dynamic and constantly changing, as can be told from the increasing availability of green options and consumers' attitude change (e.g., skepticism) over time. Though little research has been devoted to exploring the green consumption behaviors of socioeconomically lower-class buyers, a study shows that low-income families in Malaysia exhibit a strong intention toward green consumption following an increase in eco-literacy (Al Mamun, Mohamad, Yaacob & Mohiuddin, 2018), which implies that low-income consumers should not be excluded from green marketers' radar. At the same time, our research suggests that the widely used environmental claims in apparel messages may not be as universally effective as marketers expect. If marketers target typical middle-class consumers, they might need to consider shifting the focus of product messages to the utilitarian value of green products, especially if their target consumers tend to be suspicious of environmental claims. At the same time, exaggerating or even fabricating environmental claims is a widespread issue in industries, and consumers are often capable of detecting such fallacies (Loannou, Kassinis & Papagiannakis, 2022). How to settle consumers' suspicion has thus become a key for green product marketers. In addition to being honest and diligent in their sustainable efforts, green marketers can also affect consumers' attitudes by

shifting the focus of product messages from environmental to utilitarian benefits, and this strategy could be particularly beneficial in cases where consumers become skeptical due to high-profile greenwashing scandals.

Limitations and Future Research

This research tested two moderators: socioeconomic status from the demographic perspective and skepticism as a consumer attitude. However, using education to index socioeconomic status may make the two moderators correlate to each other as lower-educated consumers may have less access to greenwashing news. Further studies need to follow to address this concern. Besides, consumers evaluate green products differently when the products fall to product categories that value strength than when gentleness is valued. We chose a hoodie as our experiment product, with which both gentleness and strength are valued, and some results with this research might be changed if other products were chosen. For example, we found that environmental value messages have a simple positive effect on purchase intention, and we think the effect might be reversed if experiment products belong to categories that value more of strength (e.g., tire).

We found that socioeconomically lower-class consumers are more favorable toward green products with environmental claims than those with utilitarian messages because moral implications with environmental claims provide a better opportunity to differentiate themselves in terms of morality. One boundary condition needs to explore is the visibility of sustainable behaviors (e.g., the extent to which ethical behaviors are observed). Previous research on conspicuous ethical consumption found that consumers are more likely to purchase green (vs. non-green) products in public (vs. private) settings (Griskevicius et al., 2010), and this research

extended that line of research by running experiments using an often publicly used product, a hoodie. However, we did not directly include visibility as a variable in our studies.

Our study provides evidence that utilitarian value messages are particularly effective in influencing consumers who are skeptical about environmental claims made by brands. We measured skepticism level as a pre-existing condition and tested its moderating effect on purchase intention. We did not find a correlation between the participants' group and their level of skepticism, indicating that skepticism is an antecedent condition rather than a result of exposure to environmental messages. However, participants who received the environmental value message expressed greenwashing concerns in the open field question, suggesting that the environmental message may increase the salience of skepticism. Future research could explore whether the salience of skepticism mediates the effect of message type on purchase intention and investigate the factors that increase the salience of skepticism.

In addition to what we find in the current research, consumers may also pursue hedonic values, such as uniqueness and fun (Choi & Johnson, 2019) in green consumption, and research needs to be done to understand how to respond to these motivations. Furthermore, it is necessary to consider consumers' green consumption motivations as dynamic and inconsistent across groups of consumers. The increasing availability and accessibility of green products may have weakened those products' ethical implications for at least some groups of consumers, and researchers may need to investigate how to respond to green consumption motivations that go beyond environmental or ethical concerns. Right now, research mostly studies eco-friendly products as a separate category, as opposed to regular products, and green consumption behaviors are often treated as temporary choices between green and non-green. Nevertheless,

consumers who are familiar with green products may already consider these products as regular and sustainability as a feature. It is reasonable to treat groups of consumers differently and study marketing strategies that cater to their specific motivations.

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APPENDICES

Appendix A: Product and Messages in Study 1

Utilitarian value message group:



Made with 100% recycled cotton. Everyday essentials that feel soft on your skin. Great for layering, pairs well with everything and is an ideal companion all year long. Made to last a lifetime. *The more you use, the more value you get.*

Environmental value message group:



Made with 100% recycled cotton that would otherwise end up in landfills. Recycling cotton saves water, energy and decreases carbon dioxide emissions comparing to conventional cotton production. *The more you use, the more you protect.*

Control group:



Hoodie

S M L XL XXL

Grey



Add to Cart

Made with 100% recycled cotton.

Appendix B: Scales

- Altruistic warmth as measured by warm glow scale (Tezer and Bodur 2021):

I feel good about myself.

I feel happy about myself.

I have a warm feeling in my chest.

- Skepticism toward brands' environmental claims (Mohr, Eroğlu, and Ellen 1998):

Most environmental claims made on package labels or in advertising are true.

Most environmental claims on package labels or advertising are intended to mislead rather than to inform consumers.

I do not believe most environmental claims made on package labels or in advertising.

- Perceived differentiation benefits (Dubois, Laurent, and Czellar 2001):

The product reveals a bit of who I am.

The product differentiates me from others.