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Article

# Beneficiary Foci Types and Performance Appeals in Green Advertising

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**Abstract:** In green advertising, the message focus is often associated with one of two benefits: the self-benefit focus and the other-benefit focus. However, determining which of the two benefit foci is more effective in generating positive consumer responses is still debatable. To explain the complexity of the mixed findings, we have explored advertising appeals that influence the perception of the environmental performance of the product, or green performance perception. Specifically, we have examined the self- and other-benefit types with three performance-based appeals (before, after, and before–after appeals) in relation to perceived green performance and brand attitudes. A  $2 \times 3$  ANOVA of perceived green performance with data from 390 participants reveals a significant two-way interaction. Results from comparing the three types of performance-based appeals indicate that, regardless of the beneficiary foci type, the before–after appeal works best in generating greater perceived green performance, which, in turn, leads to positive brand attitudes. When promoting the green benefit of others, we recommend using before-appeals to enhance a product’s green performance perceptions and after-appeals for self-benefit-focused advertisements; if not, before–after appeals are used.

**Keywords:** before–after appeals; beneficiary foci; brand attitude; green advertising; green performance; performance appeals

## 1. Introduction

Since the environmental movement in the late 1960s, a growing number of companies have not only adopted sustainability in their business practices and being required to comply environmental regulations, but also strategically communicated their efforts in corporate social responsibility to consumers [1,2]. The effort of companies in developing environmentally sustainable products has also increased along with consumer’ expectations of products that help conserve the natural environment. Offering environmentally sustainable products allows companies to achieve a competitive advantage by differentiating their product from other alternatives in the market [3]. Accordingly, highlighting the environmentally sustainable features of a product, known as product-oriented green advertising [4], has been widely used to persuade consumers since its peak in the late 1980s [5,6] and such green advertising expenditures are found to be effective in increasing sales, particularly for small companies [7].

Noticeably, green advertising messages often focus on one of two benefits: benefits to one’s self (self-benefit focus) or benefits to some other individual or the public (other-benefit focus) [8,9]. Researchers have been interested in determining which of the two benefit foci is more effective in generating positive consumer responses, yet the findings are inconclusive [8,10]. To explain the complexity of the mixed findings, we investigate factors that may affect the role of beneficiary foci

generating consumer responses. Specifically, we incorporate green performance perception, that is the perception of the environmentally sustainable performance of the product. Understanding how consumers perceive the environmental effectiveness of the advertised product is particularly important for advertisers, because of the consumers' skepticism towards green products and environmental claims in the advertisements [4,11]. Environmentally sustainable products, in short, green products, are considered as preferable options when consumers perceive no obvious trade-offs [12]. However, consumers often associate risks with green products. Not only do consumers perceive green products as more expensive [13], but they also view these products as inferior to non-green product alternatives, thus increasing the amount of usage to achieve the same effect [14]. For these reasons, companies that advertise their green products may experience backfire at the expense of the product's greenness [15]. Furthermore, consumers who care for the environment are less skeptical towards green advertising [16]; however, some environmentally concerned consumers show higher skepticism towards green claims [11,17] despite the fact that they may be unable to distinguish false green claims [18]. Therefore, advertisers must find an effective strategy that influences green performance perception so that consumers can form positive attitudes toward the product and feel confident in their choice of green products.

One strategy influencing the consumers' perception of a product performance is the use of performance-focused appeals. For green products, the emphasis of product performance can be given to the effectiveness of environmentally sustainable features, in short, green performance. Advertising appeals that focus on the product's green performance help consumers perceive the prospective green performance of the product, which may shape attitudes toward the product and the brand. Accordingly, we examine the interaction effects between three performance appeals (before, after, and before–after appeals) and the self- and other-benefit foci on consumer responses, namely, perceived green performance and brand attitudes.

## 2. Theoretical Background

### 2.1. Beneficiary Foci Types

The widely used communication strategy in green advertising is the emphasis of beneficiary, specifically, the benefit of self and the benefit of others [8]. Self-benefit appeals present the beneficiary of the advertised product as an individual consumer. These appeals promote the direct benefits to the consumer containing egoistic values (e.g., cost savings, personal health benefits). Meanwhile, other-benefit appeals promote environmental or social benefits conveying altruistic values (e.g., fresh water source for the world).

In an effort to examine the two appeals, researchers have investigated factors that influence the effectiveness of beneficiary emphasis. These factors include involvement with environmental issues [19], public versus private settings [8], and advertising descriptions of green features [9]. For example, Schuhwerk and Lefkoff-Hagius [19] compared the self- and other-benefit appeals (i.e., cost saving vs. environmental benefit) in the context of green laundry detergent consumption. In their study, the effectiveness of benefit appeals depends on the consumer's involvement with the environment. Consumers with greater concerns for the environment show favorable attitudes toward the advertising and higher purchase intention, regardless of the beneficiary type. However, among consumers who are less involved with environmental issues, other-benefit appeals were more persuasive than self-benefit appeals.

Green and Peloza [8] reported that the setting is a significant factor that determines the effectiveness of the two appeals in green consumer behaviors. They investigated green consumer behaviors, that is, green product consumptions (i.e., a laundry detergent and a fuel-efficient vehicle) and the use of personal reusable mugs over store-supplied disposable cups. They found that, in a public setting, where participants think that their responses will be shared and made public, other-benefit appeals are more effective than self-benefit appeals. Likewise, in a private setting, where participants believe that

their responses will be kept anonymous and confidential, self-benefit appeals are more effective in generating pro-environmental responses than other-benefit appeals.

Furthermore, Yang, Lu, Zhu, and Su [9] incorporated the manipulation of advertising descriptions of product features—abstract versus concrete descriptions, in the analysis of beneficiary foci related to green product purchase intentions (i.e., a drink, a laundry detergent, and a fuel-efficient vehicle). Compared with self-benefit appeals, participants respond more to other-benefit appeals when the advertised product is described in an abstract manner. Similar to Green and Pelozo's [8] study examining the influence of the public versus private settings, Yang, Lu, Zhu, and Su [9] investigated the role of high versus low public self-awareness and collective- versus individual-identity salience status. Their results show that when participants have high public self-awareness or their collective levels of self are heightened, other-benefit appeals are more effective than self-benefit appeals with the abstract description condition.

Similarly, Jager and Weber [20] examined the effects of self- and other-benefit appeals as well as abstract and concrete message conditions in the context of organic food consumption. Between the two categories of appeal conditions, they reported that the effects of beneficial foci are stronger than message conditions. They found that other-benefit appeals (i.e., environmental benefits) work better at increasing purchase intentions than self-benefit appeals (i.e., health advantages). In addition, concrete messages work better in generating credibility towards the advertising than abstract messages; however, concrete messages do not necessarily increase consumers' purchase intentions. Unlike Yang, Lu, Zhu, and Su's [9] study, Jager and Weber did not find interaction effects between beneficiary foci and message conditions. They explained that the discrepancy may be caused by the differences in stimuli settings (i.e., length of messages) or the study samples (Chinese university students vs. German adults).

To explore factors that may influence the effectiveness of beneficiary foci further, we examine advertising appeals that communicate product's green performance in relation to the beneficiary foci. Previously mentioned studies commonly reveal that other-benefit appeals are more effective when the consumers' status or condition is connected with something beyond the individual self (e.g., public setting, public self-awareness, and collectivism). The opposite is true for the association between self-benefit appeals and private status or condition (e.g., private setting, private self-awareness, and individualism). Thus, the investigated factors can be considered as having inherent elements of either altruistic or egoistic values. Hence, it is possible that other-benefit appeals are effective in responding to altruistic values, and self-benefit appeals are effective in responding to egoistic values. Unlike the previously examined factors, advertising appeals that focus on the performance of green products and how consumers perceive the performance are neither altruistic nor egoistic in themselves. Therefore, we expect that the exploration of performance appeals and perceptions in the analysis of beneficiary foci can overcome the limitation of previous studies.

## 2.2. Green Performance Appeals

One way to communicate product performance is to show the satisfactory condition after using the advertised product (after-appeals). For example, a model with flawless skin holding a jar of moisturizer is designed to induce an expectation that consumers would also have the satisfying result from the product. Advertisers may also choose to present a problematic condition and compare it with an improved condition (before–after appeals [21]). For example, featuring a dirty shirt and a cleaned shirt after washing it with the advertised detergent directly shows what the detergent can do to solve a problem. Such a comparison between before- and after-conditions accentuates the effectiveness of the product. Alternatively, advertisers may show only a problematic condition and evoke the need for the product (before-appeals). For instance, featuring untreated water from a faucet creates a need for a water filter system. Such before-appeals incite consumers to imagine the improved condition using the product.

Despite the fact that the before- and after-appeals have been commonly used by advertisers, relatively limited research attention has been given to these advertising strategies [21]. As Chang [21] identified, an early study that examines over a thousand television commercials briefly stated that before–after appeals appear to increase memorability and persuasiveness [22]. Later, Chang [21] conducted a focused study about all three types of performance appeals. Specifically, the researcher investigated the effects of the performance appeals on product performance perception, brand attitudes, and purchase intentions for consumer goods (i.e., artificial eyelashes, cosmetic contact lenses, and bedroom storage systems). Among the three types of performance appeals, before-appeals are the least effective, and before–after appeals are the most effective at generating positive consumer responses. In particular, Chang [21] highlighted the role of product performance perceptions as a significant mediator between performance appeals and consumer responses. The researcher concluded that the ability to increase the perceptions of product performance is the key for the superiority of before–after appeals.

Similarly, some evidence for the importance of product performance perception has been reported in the context of green product consumption [5,23]. In green advertising, product performance often focuses on the effectiveness of the environmentally beneficial feature of a product, whether the advertised green features are beneficial, or less harmful at minimum, to sustain the environment, that is, the product's green performance. For example, in a study of green apparel consumption, Song and Kim [24] identified green performance as one of the important elements of green apparel advertising, although the significance of perceived green performance benefits did not reach a statistically meaningful magnitude as a direct predictor of purchase intentions in the presence of other factors (e.g., apparel quality, apparel uniqueness). In particular, Chen and Chiu [5] reported the perceived effectiveness of green products as a novel mechanism that lead to positive consumer responses by mediating the interplay effect between consumer's environmental consciousness and advertising appeals to brand attitudes. In addition, Choi and Johnsons [23] found that green performance perception has led to a favorable attitude towards purchasing a green product [23]. On the basis of these supportive findings of previous research, we expect to see the general link from product's green performance appeals to green performance perception, and then from green performance perception to brand attitudes. Specific hypotheses about the performance appeals and beneficiary foci are proposed based on construal level theory.

### 2.3. Construal Level Theory and Hypothesis Development

When advertisers use before–after appeals, consumers easily perceive the product performance because the problematic condition serves as a direct comparison point for the improved condition after using the product [21]. Based on the Chang's [21] study, which reported the superior effect of before–after appeals on product performance perceptions, we also expect greater green performance perceptions when before–after appeals are used in green advertising regardless of the types of beneficiary foci. Whether the benefit of messages is based on others or self does not matter when before–after appeals are presented in green advertisements, as the effect of before–after appeals on green performance is outstanding, in terms of their memorability and persuasiveness [16]. Thus, we hypothesize the following:

**H1:** *Before–after appeals generate enhanced perceptions of green performance compared with before-appeals and after-appeals.*

Without a direct comparison of before- and after-use presentations, however, we expect to see interaction effects between performance appeals and beneficiary foci because of psychological distance when before- and after-appeals are implemented along with beneficiary foci.

According to construal level theory (CLT; [25]), psychological distance refers to a subjective experience of closeness or distance between a person and a subject. The gauge of psychological distance is self-centered, anchored at the self. Thus, consumers' psychological distance is close to the

advertising message if the advertising appeal focuses on the benefits of the self, while the distance is far if the advertising appeal focuses on benefits of others. The theory further explains the association between psychological distance and the levels of construal. As psychological distance increases, the representation of a subject becomes more abstract (high-level construals) by omitting noncentral features of the subject, and it affects perceptions and judgements. In other words, if people sense that a subject is far from the self, they form a high-level, abstract mental construal of the subject and tend to process the subject in a more abstract way. For example, when people describe the actions of others, they tend to use abstract languages than describing one's own actions [26,27]. This CLT process is the basis of the research findings that the abstract appeals of green advertising are more effective when the product benefit is associated with others, because the concept of others is more psychologically distant than the concept of self [9]. Concrete appeals, specific and detailed descriptions of product features, were more effective when the advertised product is associated with the benefits of self.

Compared with after-appeals, before-appeals give a more abstract image of the product performance. As before-appeals present only the problematic condition, consumers need to imagine the later results after using the product. Therefore, we expect that using before-appeals would be more effective in communicating the performance of the product when the green claim benefits others, as other-benefit appeals create psychological distance (compared to self-benefit appeals), and consumers would think in an abstract way. Conversely, using after-appeals would be a better communication strategy when the green claim benefits the self. In this regard, we hypothesize the following:

**H2:** (a) *Before-appeals generate enhanced perceptions of green performance than after-appeals when other-benefit focus is used.* (b) *After-appeals generate enhanced perceptions of product performance than before-appeals when self-benefit focus is used.*

Furthermore, on the basis of the previous research findings of the role of product performance perception between advertising appeals and brand attitudes [5,21], we hypothesize that the effect of appeals on brand attitudes is mediated through green performance perceptions.

**H3:** *Green performance perceptions mediate the interplay effects of beneficiary foci and performance appeals on brand attitudes.*

### 3. Materials and Methods

#### 3.1. Design and Stimuli

To test the effect of beneficiary foci and performance appeals on brand attitudes, mediated by green performance perceptions, a 2 (beneficiary foci: self-benefit and other-benefit) × 3 (performance appeals: before-appeal, after-appeal, and before-after appeal) between-subject experimental design was used. We created a fictitious green denim brand and introduced it to participants using an image and a short description. The description of the brand included its philosophy regarding environmental concerns and introduced its stance on environmentally sustainable denim production that reduces water consumption and pollution. After seeing the brand description, the participants were randomly distributed to one of the six stimuli. The study stimuli included a picture and headlines of the fictitious green denim brand. Manipulation of appeals for the six conditions was achieved by the headlines. The self-benefit appeals stated "my drinking water", while the other-benefit appeals stated "the world's drinking water." The three performance appeals were also manipulated using headlines of "contaminated" for before-appeal, "clean" for after-appeal, and "contaminated but now clean" for before-after appeal (see Appendix A).

#### 3.2. Participants and Procedures

Participants were recruited from Amazon Mechanical Turk (MTurk), which is an open online marketplace for participant recruitment and data collection. According to research on the quality of



MTurk data and samples, MTurk data are demographically similar to standard online panel samples and the data quality is also comparable to standard online panel samples [28,29]. Potential MTurk participants can browse available tasks and receive payment upon successful completion of each task. They read an invitation, which included a title and a short description of the study before they decided to participate in the survey. The invitation contained a web-address hyperlink that directed the participants to the survey. Once the participants moved to the survey site, they were randomly assigned to one of six conditions.

The participants viewed the brand description and its advertisement, which was manipulated by beneficiary foci and performance appeals. Then, they rated questions on manipulation check, perceived green performance and brand attitudes. Perceived green performance and brand attitudes were measured using seven-point Likert-type scales (1 = strongly disagree; 7 = strongly agree). For perceived green performance, the measurement items were adapted from Chang [21]. To access a level of perceived green performance, the participants rated the degree to which they agreed with two items: "The brand performs very well in keeping water clean" and "The brand works effectively in keeping water clean" (Cronbach's  $\alpha = 0.766$ ,  $M = 5.63$ ,  $SD = 1.02$ ). Brand attitudes were measured with four items that were adapted from Chang [30]: "The brand is good", "I feel positive toward the brand", "I like the brand", and "I feel pleasant about the brand" (Cronbach's  $\alpha = 0.879$ ,  $M = 5.69$ ,  $SD = 0.95$ ). Participants could complete the online survey at times and locations convenient to them.

Two types of attention check items were included to prevent random responses. First, after watching the brand description and its advertisement, the participants were asked to provide the name of the denim fashion brand, which was presented in the description. Second, in the process of survey response, we included multiple attention check items, such as "This is one of several questions to check your attention to this survey. Select Disagree." If participants did not pass these attention check items, then they were eliminated from the completed sample.

A total of 390 individuals' completed data were collected. The data were analyzed by SPSS 20.0 for the descriptive statistics, frequency analysis, reliability analysis, analysis of variance (ANOVA), and PROCESS procedure [31]. PROCESS is a computational tool for path analysis-based moderation and mediation analysis as well as their combination as a conditional process model [31]. In addition to estimating the coefficients of the model using OLS regression (for continuous outcomes) or maximum likelihood logistic regression (for dichotomous outcomes), PROCESS generates direct and indirect effects in mediation and mediated moderation models [31]. In this regard, through the PROCESS procedure, we tested the interplay effect of beneficiary foci and performance appeals on brand attitudes with a single mediator (i.e., perceived green performance).

## 4. Results

### 4.1. Participant Characteristics

The demographic characteristics of the samples showed that males accounted for 60.0% of the total sample, 39.5% were females, and 0.5% were others. Approximately 2.6% of the respondents were in their teens, 44.6% in their 20s, 34.6% in their 30s, 9.7% in their 40s, and 8.5% in their 50s or older. Full-time workers accounted for most of the sample (80.8%) followed by part-time workers (11.0%), unemployed individuals looking for work (2.8%), students (2.6%), and others (2.9%). Other demographic characteristics are shown in Table 1.

**Table 1.** Demographic characteristics.

Demographics		n	%
Gender	Male	234	60.0%
	Female	154	39.5%
	Others	2	0.5%
Age	10s	10	2.6%
	20s	174	44.6%
	30s	135	34.6%
	40s	38	9.7%
	50s & others	33	8.5%
Employment	Employed full time	315	80.8%
	Employed part time	43	11.0%
	Unemployed looking for work	11	2.8%
	Students	10	2.6%
	Others	11	2.9%
Annual household income	Less than \$10,000	18	4.6%
	\$10,000 to \$49,999	156	40.0%
	\$50,000 to \$99,999	165	42.3%
	\$100,000 to \$149,999	36	9.2%
	\$150,000 and greater	13	3.3%
	Prefer not to answer	2	0.5%
Marital status	Married	223	57.2%
	Never married	126	32.3%
	Others	37	9.5%
	Prefer not to answer	4	1.0%

#### 4.2. Manipulation Check

For the manipulation checks, the participants were asked to rate the type of beneficiary-foci in the advertisement on a seven-point Likert-type scale in response to the phrase stating “To what degree does this advertisement associate with the benefits of self or the benefits of other?” (1 = others; 7 = self). The result of ANOVA showed a successful manipulation; the stimulus presenting self-benefit appeals (vs. others-benefit appeals) was perceived as more associated with the benefits of the self ( $F(1,388) = 5.814, p < 0.05; M_{\text{self}} = 4.52, M_{\text{others}} = 4.06$ ). The participants were then asked to rate the type of performance appeals shown in the advertisement on a seven-point Likert-type scale in response to the phrase stating “This advertisement shows the solution to problems in denim production” (1 = strongly disagree; 7 = strongly agree). The result of ANOVA revealed a successful manipulation. The participants, who were assigned to either the condition of after-appeals ( $M_{\text{after}} = 5.02$ ) or before–after appeals ( $M_{\text{before-after}} = 5.37$ ), generated a more agreeable response to the statement than those in the condition of before-appeals ( $M_{\text{before}} = 4.52$ ) ( $F(2,387) = 8.372, p < 0.001$ ). This result indicates that the participants perceived that the advertisement showed the solution to an environmental problem when the advertisement contained the after- and before-after use presentations.

#### 4.3. Hypothesis Testitng

A 2 (beneficiary foci: self-benefit, other-benefit)  $\times$  3 (performance appeals: before-appeal, after-appeal, before-after appeal) ANOVA on perceived green performance was conducted, to test Hypotheses 1 and 2. The results yielded a significant main effect of performance appeals ( $F(2,384) = 5.351, p < 0.01$ ) and an interaction effect of beneficiary foci and performance appeals ( $F(2,384) = 3.420, p < 0.05$ ) on perceived green performance. The participants who saw the advertisement with before–after appeals ( $M_{\text{before-after}} = 5.86$ ) perceived a greater green performance than those in the condition of before- ( $M_{\text{before}} = 5.54$ ) or after-appeals ( $M_{\text{after}} = 5.50$ ) presentation, thereby supporting Hypothesis 1.

Regarding the interaction effect of beneficiary foci and performance appeals on perceived green performance, the participants generated higher perceptions of green performance under the condition



of before-appeals with other-benefit focus ( $M = 5.62$ ) than after-appeals with other-benefit focus ( $M = 5.29$ ), as shown in Figure 1. In addition, after-appeals focused on self-benefit in the advertisement ( $M = 5.70$ ) generated enhanced perceptions of green performance than before-appeals focused on self-benefit ( $M = 5.45$ ). Thus, both (a) and (b) of Hypothesis 2 were supported. As expected, the highest perceived green performance was observed when before–after appeals were used regardless of the types of beneficiary foci. Therefore, Hypothesis 1 was again supported by this result.

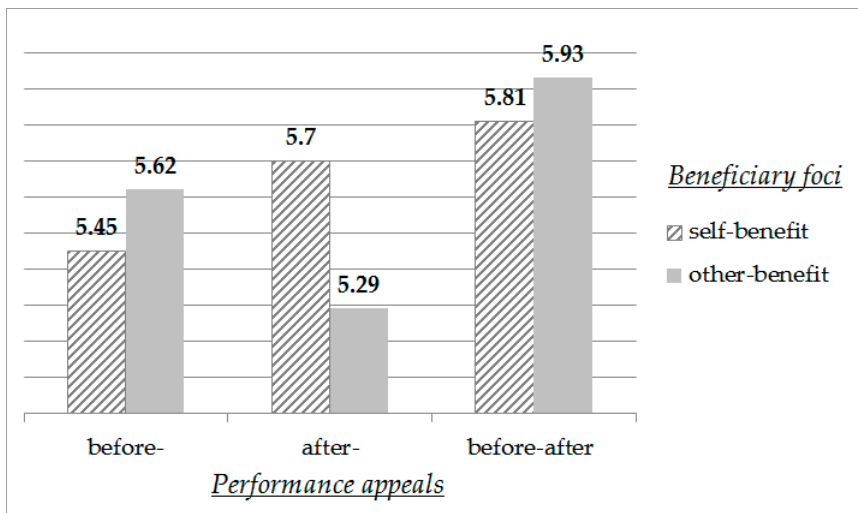


Figure 1. Interaction effect of beneficiary foci and performance appeals on perceived green performance.

4.4. Mediation Analysis

To understand the roles of perceived green performance that mediate the interplay effects of beneficiary foci and performance appeals on brand attitudes, PROCESS procedure proposed by Preacher and Hayes [31] was tested. We divided the data into two groups (self- vs. other- benefit appeals). Then, we conducted the moderated mediation analysis using Model 4 with 1000 bootstrap samples twice with the data of each group to see whether performance appeals influenced brand attitudes, which were mediated by perceived green performance in response to the type of beneficiary foci. Statistical model and its formula are as shown in Figure 2.

$$\text{Indirect effect of } X \text{ on } Y \text{ through } M_j = a_1j b_1j$$

$$\text{Total indirect effect of } X \text{ on } Y \text{ through all } M = \sum_j (a_1j b_1j)$$

$$\text{Direct effect of } X \text{ on } Y = c'1$$

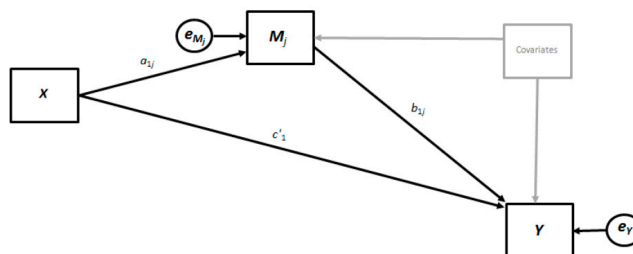
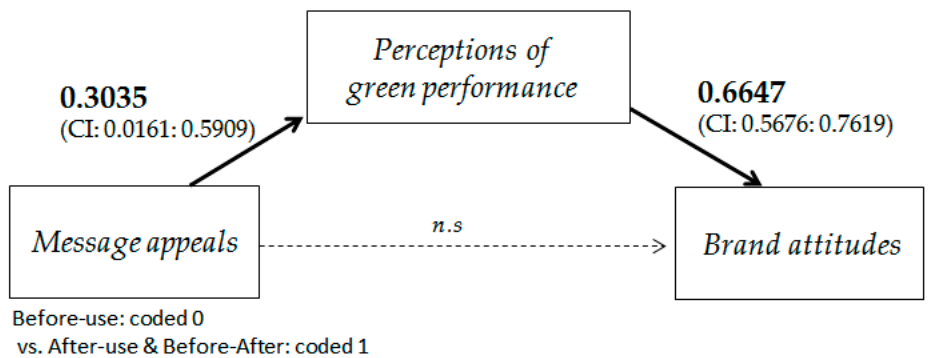


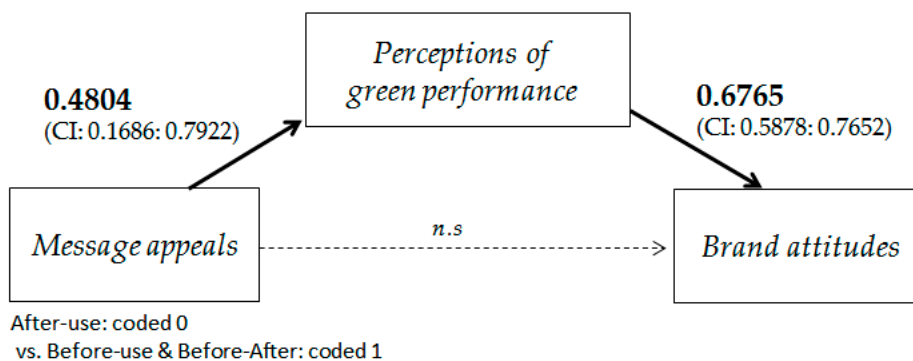
Figure 2. Statistical model of mediation analysis [31].

First, using the data with self-benefit ( $n = 201$ ), the moderated mediation analysis was conducted (coded 0: before-appeals, coded 1: after- and before–after appeals). (We coded the condition of before-appeals as 0, and the conditions of after- and before-after appeals as 1, on the basis of the level

of green performance perception. For the condition of self-benefit presentation, after- and before-after appeals generated a more enhanced green performance perception, than before-appeals, according to the result of ANOVA.) As shown in Figure 3, the result shows that when benefits focused on self, the after- and before-after appeals increased brand attitudes, which were mediated by perceptions of green performance (Indirect effect = 0.2018, 95% CI [0.0125, 0.4361], direct effect = 0.0477, 95% CI [-0.1542, 0.2496]). When the confidence interval (CI) contains zero, the hypothesis is significantly supported. This simple mediation generates a bias-corrected 95% bootstrap confidence interval for the indirect effect using 1000 bootstrap samples. The outcome indicated that when the green claim benefited the self, messages with after- or before-after appeals increased the consumer perception of green performance, and it enhanced brand attitudes. Second, we conducted process analysis again using the data with other-benefit focus (n = 189) (coded 0: after- appeals, coded 1: before- and before-after appeals). (We coded the condition of after-appeals as 0, and the conditions of before- and before-after appeals as 1, on the basis of the level of green performance perception. For the condition of other-benefit presentation, the before- and before-after appeals generated enhanced green performance perception than after-appeals, according to the result of ANOVA.) The result shows that when benefits focused on others, the before- and before-after appeals increased brand attitudes, which were mediated by perceptions of green performance (Indirect effect = 0.3250, 95% CI [0.0920, 0.6293], direct effect = 0.0772, 95% CI [-0.1191, 0.2736]), which signified that, when the green claim benefited others, messages with before- or before-after appeals increased consumer perception of green performance, thus influencing brand attitudes positively.



(a) Beneficiary foci - self



(b) Beneficiary foci - others

Figure 3. Results of moderated mediation analysis.

## 5. Discussion

A company that shows enthusiasm in environmentally sustainable products communicates green messages in its advertisements. These messages present green performance associated with the effectiveness of the environmentally positive features, whether the advertised green features are beneficial, or less harmful at minimum, to the environment. Accordingly, we explore the different effects of the three types of product performance appeals: (1) before–after appeals, which compare a problematic condition with an improved condition after using the advertised product, (2) before-appeals, which show only a problematic condition and evoke the need for the product, and (3) after-appeals, which show the satisfactory condition to generate positive perceptions of product performance. In addition, these messages in green advertising often focus on one of two benefits: the self-benefit focus and the other-benefit focus. However, determining which types of messages are more effective in generating positive consumer responses still remains inconclusive. In this regard, this study demonstrates the effects of self- and other-benefit types with three performance-based appeals (before, after, and before–after appeals) on perceived green performance and brand attitudes.

Consistent with the results of Chang's [21] study, among the three types of performance appeals, before–after appeals are the most effective in generating positive consumer responses in the context of green advertisement. Our results reveal that the messages with before–after appeals generate a greater green performance perception than those with before- or after-appeals in green advertising, indicating that before–after appeals are the most effective way to communicate environmentally sustainable performance. However, this pattern of results differed on the basis of whether the messages contain the benefit of self or the benefit of others. When before-appeals focus on the benefit of others, people perceive greater green performance than when after-appeals focus on the benefit of others. In contrast, the message carrying after-appeals is effective when it guarantees the benefit of self, suggesting that after-appeals focused on self in the advertisement generate enhanced green performance perception than before-appeals focused on self-benefit.

The mediation effect of perceived green performance conditionally differs on the basis of the message types, where perceived green performance mediates the interplay effects of beneficiary foci and performance appeals on brand attitudes. When the messages focus on the benefit of self, after- and before–after appeals increase brand attitudes, which are mediated by perceptions of green performance. Meanwhile, when the messages focus on the benefit of others, before- and before–after appeals increase brand attitudes, which are mediated by perceptions of green performance. Previous research also identifies the mediation effect of product performance perception between advertising appeals and brand attitudes [5,21]. Our results extend the results of the preceding study by suggesting the conditional mediation effect on the basis of the CLT process. Our results show that the before-appeals (i.e., abstract appeals) of green advertising are more effective when the product benefit is associated with others, as “others” is a more psychologically distant concept than “self” [9], and vice versa.

## 6. Conclusions

### 6.1. Theoretical and Practical Implications

The findings in this study provide several contributions to the existing literature of environmentally sustainable advertising and consumer responses. First, this study expands performance-based advertising research by identifying the effectiveness of three types of performance appeals (before-, after-, and before–after appeals). This study challenges the work of previous research, which claims that before-appeals are the least effective among the three types of performance appeals [21] and confronts that the effect of before-appeals has been underestimated. Even though the effect of before-appeals on consumer responses did not receive considerable attentions in previous research [21,22], our results show that before-appeals can generate a positive perception toward a product under certain situations, such as when the messages focus on the benefits of others. These findings contribute to the study of

advertising by highlighting the complexity of appeal messages and the interaction effects of appeals on consumer responses.

Second, this study enriches the research of CLT by discussing the effects of the beneficiary foci (benefits of self and others) of the advertising message. CLT has important implications for explaining and predicting consumer behavior such as purchasing decisions and intentions, risk taking, and shaping brand attitudes [32]. Several studies have explored the effects of psychological distance on consumers' environmental concerns [33] and sustainable and recycling behavior [34,35] based on CLT. However, they have been limited to fragmentarily demonstrating temporal distance [33–35], social distance [34] or moral dilemmas [33,34]. However, the current study explored the effect of congruence between beneficiary foci and the message types (i.e., green performance appeals) in advertisements. We especially demonstrate that the effectiveness of green message is best served when performance appeals are congruent with the beneficiary foci of the message in accordance with the CLT process. When before-appeals, namely, abstract messages, of green advertising are congruent with others, green messages can increase the perceived green product performance, as "others" is a more psychologically distant concept than "self." After-appeals, which contain concrete and detailed descriptions, are more effective when the product benefit is associated with the benefits of self. These results provide strong support for the importance of matching the types of advertising appeals and their beneficiary foci where consumers face green advertising.

Third, this study identifies the moderated mediation effect of perceived green performance under certain settings associated with the types of green messages. Unlike the existing literature that demonstrates the mediation role of green performance perception between advertising appeals and brand attitudes, the current study suggests that the effects of green performance on brand attitudes conditionally differ. Moreover, we identify the mediation effect of green performance under performance appeals—beneficiary foci congruent conditions. This finding enriches prior research on the role of green performance in sustainable consumption and suggests that consumers do not consistently perceive sustainability in settings in which green messages are presented.

Lastly, the current study was conducted in the context of apparel consumption in the fashion industry, where the importance of sustainability is increasing. Textiles and garments manufactured from plant-based fibers, especially cotton, require harmful pesticides and large amounts of water and many kinds of fiber used to make clothes come with environmental trade-offs [36]. The United Nations [37] has also stated that carbon emissions from the fashion industry are estimated to grow by more than 60% by 2030. Despite the sustainability issue in the fashion industry, previous research on green message effectiveness in advertisements has been limited to the daily necessities, such as laundry detergent [8,9], beverages [9], organic food [20] and a fuel-efficient vehicle [8,9]. Thus, the findings of this research extend the scope of sustainability research to generalize the effect of green messages on fashion consumers' responses in the apparel consumption context.

In addition to extending the research of environmentally sustainable advertising and consumer responses, the findings of this study have practical implications applicable to green consumption and related industries as well. As sustainability becomes an ever more important part of the corporate world in terms of managing brands, stores, and supply chain management, companies need to find effective ways to communicate their green initiatives to consumers. In particular, the fashion industry has a major challenge in terms of maintaining sustainability in complex supply chains from primary producers to retailers. Concern over sustainability issues in the fashion industry has led to the formation of a growing number of initiatives; for example, many fashion retailers are attempting to attract consumer attention with sustainable strategies in terms of production, distribution, supply stages and marketing. However, the series of attempts by fashion retailers are not enough to encourage consumers to choose sustainable brands or retailers, because little research has been done on the effect of green messages on fashion consumers. Thus, the results of this study contribute to an enhanced understanding of the manner in which consumers perceive green messaging from a fashion retailer in several important ways. Fashion retailers can use different messaging strategies based on their

characteristics. For example, if the philosophy of brands is associated with reciprocity or social benefits (e.g., benefits of others), then they can deliver the green message with before-appeals focus, presenting a problematic condition, such as “think of the water pollution” or “see the carbon emission.” In contrast, if brands care about individuals’ characteristics or personalities (e.g., benefits of self), then their green messaging should contain the satisfactory condition, focusing on after-appeals, such as “enjoy the clean water” or “breathe the fresh air.” These tactics will induce an enhanced positive perception of a product’s green performance, which can lead to favorable brand attitudes only when performance appeals are matched with beneficiary foci.

## 6.2. Directions for Future Studies

The findings in this study supplement the results of previous research on the effect of sustainable performance on consumer response. However, the current study has several limitations; therefore, the following suggestions are made to assist future research. First, even though the current study showed statistically significant results, consumers’ perceptions of and attitudes towards a sustainable brand can be inconsistent in real-life situations. Several studies have suggested that a significant gap appears to exist between consumers’ explicit attitudes towards sustainable brands or marketing messages and their actual consumption behaviors [38,39]. In particular, when consumers purchase apparel products, factors such as price, style or fit can take precedence over environmental concerns [24,40]. Thus, future studies need to reduce this gap and examine real-life situations, rather than using experimental design. A field study or qualitative study, in which manipulated scenarios or stimuli do not exist, would be helpful to generalize the findings of the current study.

Second, the current study is limited to a green message written in simple text. Follow-up studies may extend its scope to other kinds of messages, such as written text with detailed contents, images and even video. Although this study revealed that consumers could perceive the enhanced green performance of a brand when a message using green performance appeal is congruent with the beneficiary foci, the findings should be explored under other conditions, where different types of messages are delivered. For example, images can contain green messages with performance appeals. When the messaging focuses on before-appeals (vs. after-appeals), images describing water pollution (vs. clean water), can be suggested to consumers. In addition, even though this study used beneficiary foci as an abstract (i.e., other-benefit) versus concrete (i.e., self-benefit) level of construal, the content in a message can be manipulated as either a detailed message versus simple information, similar to Yang, Lu, Zhu, and Su’s study [9]. Likewise, there are many ways to present green messages. To generalize the findings of the current study, we encourage researchers to explore the effect of various types of green messages on consumers’ responses.

Third, the examination of the interplay effect of performance appeals and beneficiary foci on perceived green performance in the context of apparel consumption would benefit the current state of knowledge by considering the effect of individuals’ characteristics. Consumers’ interpretations of green messages in an advertisement and perceptions of a sustainable brand can differ based on their knowledge or environmental concerns. If consumers are unable to interpret or understand the meaning in messages, then a green message will not influence perceived green performance or brand attitudes, although the type of performance appeal is congruent with beneficiary foci. In this regard, future research could explore the moderating effect of individuals’ characteristics related to environmental concerns, knowledge or prior experience in the process of message delivery. This further effort will extend the scope of the findings of the current study and provide a meaningful direction for future research.

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## Appendix A



(a) Self-benefit &amp; before-after appeals



(b) Self-benefit &amp; after appeals



(c) Self-benefit &amp; before-appeals



(d) Others-benefit &amp; before-after appeals



(e) Other-benefit and after-appeals



(f) Others-benefit and before-appeals

Figure A1. The word's drinking water.

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