



Effect of a persuasive message and normative arguments, on advertising attitudes and purchase intention in ecological cosmetics

Efecto del mensaje persuasivo y los argumentos normativos, en las actitudes publicitarias y la intención de compra en cosméticos ecológicos

MARROQUÍN-CIENDÚA, Fernando [1](#); SANDOVAL-ESCOBAR, Marithza [2](#) & SIERRA-PUENTES, Myriam [3](#)

Received: 14/09/2019 • Approved: 11/01/2020 • Published 15/01/20

Contents

- [1. Introduction](#)
- [2. Methodology](#)
- [3. Results](#)
- [4. Discussion](#)
- [5. Conclusions](#)

[Bibliographic references](#)

ABSTRACT:

This research explores the effect of different persuasive messages on advertising attitudes and purchase intent in organic cosmetics through a factorial experiment in Colombia with 225 subjects. The results indicate that the participants show more positive attitudes towards the announcement and greater intentions of ecological purchase, when the rational message is presented in combination with the appeal to the subjective norm. Likewise, brand intention and recommendation is positively affected when the message is processed rationally in combination with the subjective norm. These findings show that the advertising messages developed to favor the ecological purchase, enhance their persuasive capacity if they are constructed with rational information framed in normative messages. Practical alternatives to encourage responsible consumption in the cosmetics sector are delivered in the discussion.

Keywords: Persuasion, ecological purchase, social norms, ELM, green advertising

RESUMEN:

Esta investigación explora el efecto de diferentes mensajes persuasivos en las actitudes publicitarias y la intención de compra en cosméticos ecológicos a través de un experimento factorial en Colombia con 225 sujetos. Los resultados indican que los participantes muestran actitudes más positivas hacia el anuncio y mayores intenciones de compra ecológica, cuando el mensaje racional se presenta en combinación con la apelación a la norma subjetiva. Igualmente la intención y recomendación de marca es afectada positivamente cuando el mensaje es procesado racionalmente en combinación con la norma subjetiva. Estos hallazgos muestran que los mensajes publicitarios desarrollados para favorecer la compra ecológica, potencializan su capacidad persuasiva si se construyen con información racional enmarcada en mensajes normativos. Se entregan en la discusión alternativas prácticas para incentivar el consumo responsable en el sector de los cosméticos.

Palabras clave: Persuasión, compra ecológica, normas sociales, ELM, publicidad verde

1. Introduction

The interest in caring for the environment is booming. Environmental research is framed by the challenges that humanity has on the deterioration of natural resources, climate change and damage of ecosystems (Ritter et al., 2015; Wen, Gong & Cai, 2016). Empirical evidence shows a negative impact of non-environmentally friendly consumption behaviors, such as the use of polluting products, waste of non-renewable raw materials, poor household practices and daily consumption (Grunert, 1993; Páramo, 2017). One of the aspects that improves environmental conditions is the adoption by consumers of responsible pro-environmental behaviors and the choice of nature-friendly products (Kanchanapibul et al., 2014; Nimse, Vijayan, Kumar y Varadarajan, 2007; Royne, Levy y Martínez, 2011; Tseng y Hung, 2013). Governments, the academic sector and social marketing continue to seek strategies to encourage pro-environmental behaviors through green consumption.

Green consumption is defined as the purchase and consumption actions that protect the environment (Moisander, 2007; Kim & Chung, 2011). This consumption has expanded in developed countries, because it minimizes the environmental impact reflected in the depletion of natural resources, climate change, air pollution and waste generation (Ritter et al., 2015; Yadav & Pathak, 2017). To achieve these goals, products with low concentration of bio-accumulative and bio-magnifiable products that compromise human health and the environment are used (Nimse, Vijayan, Kumar & Varadarajan, 2007). The personal care industry has focused innovations mainly in the organic cosmetics sector. These products are produced with active ingredients of plant origin, recyclable packaging, toxicological tests, without pesticides, synthetic chemicals and allergenic tests on animals (Guzmán, 2010). The cosmetological market has unlimited potential and is driven by factors such as increased awareness, environmental side effects, advanced beauty treatments, healthy lifestyles, increased GDP, the need to use cosmetics containing natural ingredients and advertising (Rajput, 2016).

Green advertising campaigns are strategies used to influence pro-environmental attitudes. The persuasive phenomenon has been investigated in these types of campaigns and has demonstrated the effectiveness of the messages to foster sustainable behaviors (Duerden & Witt, 2010; Giesler & Veresiu, 2014; Jones, Clarke-Hill, Comfort & Hillier, 2007). Persuasion is defined as any intention to change people's attitudes when they are exposed to a persuasive stimulus. Petty and Wegener (1998) proposed the Elaboration Likelihood Model of Persuasion (ELM) as an analysis tool. The ELM argues that information processing can be developed through two cognitive routes; central and peripheral. The central route uses high amount of thought, greater detail and involvement, resulting in changing attitudes. Along this route, logic, merits and depth of arguments influence people's judgments. The peripheral route uses a small amount thought or low elaboration of it. In this case, peripheral processing would explain the change in attitude without the need for a great effort to understand the contents of the message and attitudes are more affected by aspects external to the message (Petty & Wegener, 1998; Petty, Cacioppo, Strathman & Priester, 2005). Consequently, the attitudinal change is stronger when the messages follow the central route, than when the peripheral route is used.

ELM has been used to understand the effects of pro-environmental communication. Indeed, the attitudinal changes associated with ecological messages with economic benefits and high involvement purchases have been studied (Casado, Hidalgo & García-Leiva, 2017; Chan, 2000; Chan, Leung & Wong, 2006). Likewise, research related to product labels has been investigated (Thøgersen, Jørgensen & Sandager, 2012) and purchases of organic products under profit or loss conditions (Chang, Zhang & Xie, 2015). Similarly, the differences between imperative and indirect messages have been analyzed (Miller, Lane, Deatrack, Young & Potts, 2007; Baek, Yoon & Kim, 2015) and also the emotional responses caused by advertising that uses the threat and fear (Hartmann, Apaolaza, D'Souza, Barrutia & Echebarria, 2014; Chen, 2016). And similarly, the effectiveness of direct or aggressive language in ecological messages has been examined (Kronrod, Grinstein & Wathieu, 2012) and the contents that appeal to the environmental urgency related to consumer guilt and conscience (Chang, 2012).

On the other hand, one of the most used theories to study pro-environmental behavior is The Theory of Planned Behavior (TPB) (Ajzen, 1991). In this theory, the attitude towards the behavior, the subjective norm and the control of the perceived behavior, determine the intention (Lee & Back, 2007). Attitudes are derived from beliefs, evaluations regarding behavior and are regulated by different norms: subjective, altruistic and descriptive. Subjective norms represent the perception that individuals have about the social evaluation that other people or groups make, which are important to them (Armitage & Conner, 1999). The altruistic norms will depend on the values of the individual and will be activated if the person believes they are in an environmental situation with consequences for themselves, for others or for the entire biosphere ensemble,

together with the degree of perceived responsibility for the possible consequences of its actions (Gifford & Sussman, 2012; Stern, 2000). Finally, the descriptive norms make people act according to what is normal. This behavior is repeated and motivated because the normal is effective and works to adapt to the environment. On the other hand, with the prescriptive norms, individuals act for what is socially approved or disapproved, motivated by the effects that this type of behavior can lead to (Cialdini, 2003; White, Smith, Terry, Greenslade & McKimmie, 2009).

The present investigation tries to know the influence of persuasive messages and normative appeals on the intention of buying cosmetic products. The probability of buying this type of products is given by the level of purchase involvement and the implications for health. The consumer chooses to buy to: improve the appearance, natural ingredients, shade variability, health care, use recyclable packaging, residues, environmental protection, effectiveness and brand recognition (Di Pietro, Oca & Josué, 2017; Dimitrova, Kaneva & Gallucci, 2009; Kim & Chung, 2011; Todd, 2004). The variables that have an impact on this consumption depend on psychosocial, emotional, cultural, economic and experiential aspects (Baghel, Parthasarthy & Gupta, 2011; Hillhouse, Turrisi & Kastner, 2000). According to Kapogianni (2011) age, gender, economic literacy and concern for the environment, they are related to environmental awareness. Women worry more about the environment, since they believe it is important to take care of it for the next generations; This belief increases the intentions of organic food and ecological cosmetics consumption (Matić & Puh, 2015).

Despite the available evidence, the investigation of pro-environmental behavior associated with personal care is precarious, given that it has not been possible to identify reliably what are the effective mechanisms for the development of strategies that promote the green purchase of ecological cosmetics. This point is emphasized in Latin America, given that cultural patterns and economic resources often prevent individuals from behaving in a friendly way with the environment.

2. Methodology

The methodology of this article is based on the Elaboration Probability Model (Hogg & Vaughan, 2010; Petty & Cacciopo, 1986), in combination with social norms. This research proposed to analyze the differential effect of the persuasive message, in combination with the descriptive, subjective and altruistic norms, on the attitude towards the advertisement of ecological publicity and the intention of buying ecological cosmetics by women from the city of Bogotá. To answer the general interest, the following hypotheses were raised:

H1: the persuasive message built under the central route of persuasion in combination with social norms (descriptive, subjective, altruism), has a greater effect on attitudes towards advertising and the intention to buy ecological cosmetics, compared to those built under the peripheral route.

H2: the persuasive message built under the peripheral route of persuasion in combination with social norms (descriptive, subjective, altruism), has a greater effect on attitudes towards advertising and the intention to buy ecological cosmetics, compared to those built under the central route.

H3: The use of social norms (descriptive, subjective, altruism) in the advertising message built under the central route or the peripheral route of persuasion, has an incidence on the effect on attitudes and intention to purchase.

The total number of participants was (N = 225), of the female gender and age M = 23. The study, procedure and informed consent were explained to the participants (power = 0.86, effect size d = 0.7) (Table I). Subsequently, the participants were distributed according to each phase of the research.

Table 1
Profile of the sample

Variable	Attributes
Age (years)	18- 20 (60.8%), 21-23 (30.8%), 24 -25 (8.4%)
Marital Status	Single (97%), Married (3%)

Family Income (USD/monthly)	300-1000 (31.7%), 1000-1500 (30.9%), 1500-3000 (30.8%), > 3000 (6.7%)
--------------------------------	--

Profile of individuals participating in Phases (a,b,c)

Three evaluation phases were developed: In Phase (a) three experts evaluated 10 different messages per factor and selected three alternatives. In Phase (b) 75 women with $M = 23$ participated, who evaluated their attitude and intention to purchase derived from the messages selected by the judges, using semantic differential scales. The attitudinal assessment used the scales proposed by Chan (2000) and Chang (2012), in the case of the purchase intention, the proposal of Manrai et al., (1997) and Chang (2012) was followed. Finally, the messages were selected to be tested in the experimental phase. For the Experimental Phase (c), six audiovisual advertising ads were used, with ($n = 20$) in each experimental condition, each position was exposed to the audiovisual advertising notice corresponding to the condition and retaining the same spatial and environmental circumstances. A factorial design between groups of 2×3 was used; Factor 1 corresponded to messages on ecological cosmetics based on persuasion routes and Factor 2 corresponded to ecological messages with normative appeals (descriptive, subjective and personal-altruism). An instrument was used that measured attitudes towards the advertisement, the product, the brand and the purchase intention. This instrument was cognitively validated by a pilot test applied to 30 women of the same experimental profile.

Attitudes towards the advertisement were evaluated with different seven-point semantic differential scales, which measured attitudes towards: (1) Image, (2) Text and (3) Ad information, with Cronbach's Alpha result = .86. In the case of the purchase intention and recommendation of the product and brand shown in the advertisements, two Likert scales from 1 to 5 were used where 1 was "I will definitely not buy it / recommend it, and 5, I will definitely buy it / recommend it", with Cronbach's Alpha result = .87. During all the phases a hypothetical cosmetic brand developed by the authors was used.

3. Results

3.1. Pre-experimental phases

The results of Phases (a) and (b), determined six messages that obtained the highest attitudinal and intentional average. For the central route the selected message was: "Buy ecological cosmetics, because they have 95% organic components. In addition, they do not contain toxic substances, they don't have petroleum derivatives, they don't contain heavy metals such as arsenic or lead, they do not require tests on animals." For the peripheral route: "Buy ecological cosmetics, because the good elements of nature are for your beauty. Also, because you are a wonderful being, because you are intelligent, because you are pleasant, because you commit." In the case of the descriptive Norm: "Many women already decided it", for the subjective Norm: "Your family will thank you for it" and finally for the Personal Norm (altruism): "Protect the environment". With these messages, six audiovisual advertisements were designed with a hypothetical brand of ecological cosmetics, which represented the six experimental conditions by combining the messages based on appeals towards the different routes and standards (Annex).

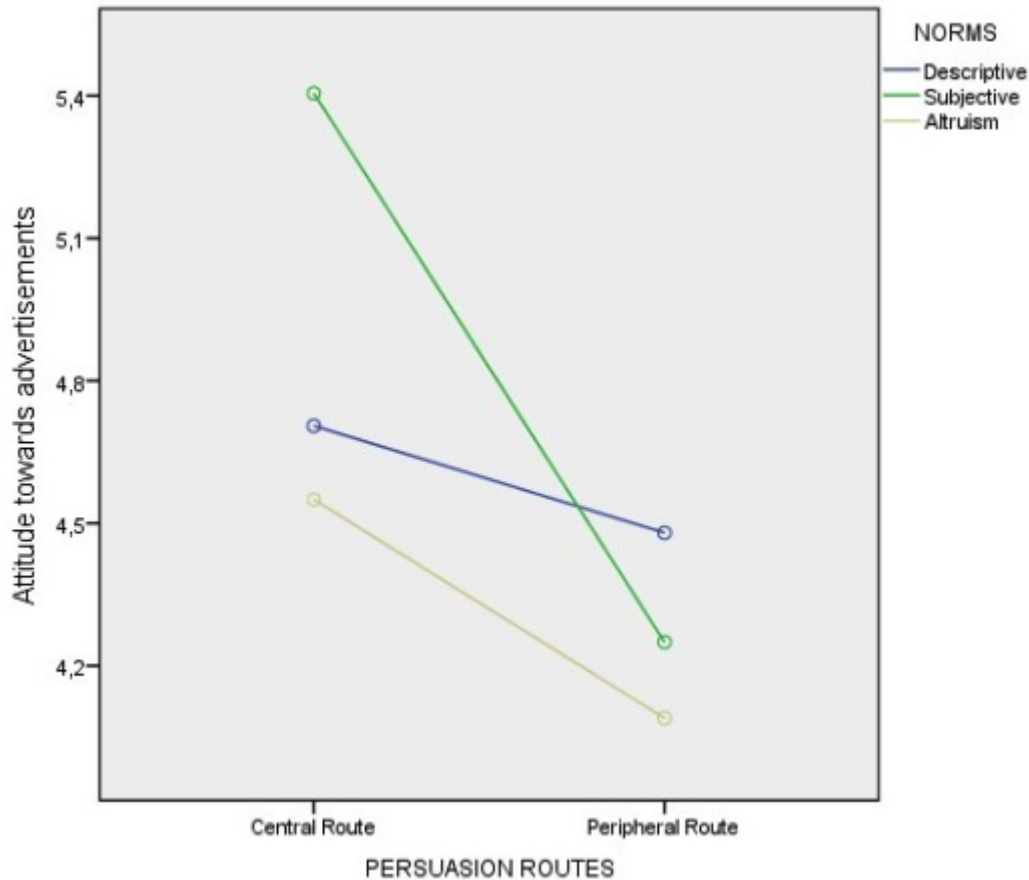
3.2. Experimental phase

The data of the experimental phase were analyzed through an ANOVA and aimed to provide answers to the ads built under the central and peripheral route with the normative appeals: (1) Attitudes towards the advertisements, (2) Attitudes towards the product shown in the Ads and (3) Purchase intention and recommendation of the hypothetical brand shown. Regarding the attitudes towards the advertisements (1), the results showed that the attitudes towards the advertisements constructed under the central route (message: "...have 95% organic components") of persuasion were superior to the advertisements constructed under the peripheral route (message: "...the good elements of nature are for your beauty") ($central M = 4.88, SD = .82; M_{peripheral} = 4.27, SD = .92; F(1, N = 120) = 15.90, p = .0$). In a similar way, there were significant differences between the normative appeals of the message ($descriptive M = 4.59, SD = .97; subjective M = 4.82, SD = .89; M_{altruism} = 4.32, SD = .86; F(2, N = 120) = 3.63, p = .02$). The interaction effect of persuasion routes and normative appeals were also significant $F(2, N = 120) = 3.29, p = .04$, being the combination of the central route with subjective norm (message: "Your family will thank you for it"), the one that shows the greatest attitude ($M_{central route \times subjective norm} = 5.40, SD = .51$). These findings indicate that the messages constructed under the central route,

potentiate their capacity for persuasion unlike the normative messages (Figure 1). However, there were no relationships between age and family income and the attitude towards advertisements, $F(1, N = 120) = .01, p = .92$ and $F(1, N = 120) = .46, p = .49$, respectively, and the product shown $F(1, N = 120) = 1.55, p = .21$ and $F(1, N = 120) = 2.00, p = .16$, respectively, both in the central and peripheral route and in the normative appeals.

Figure 1

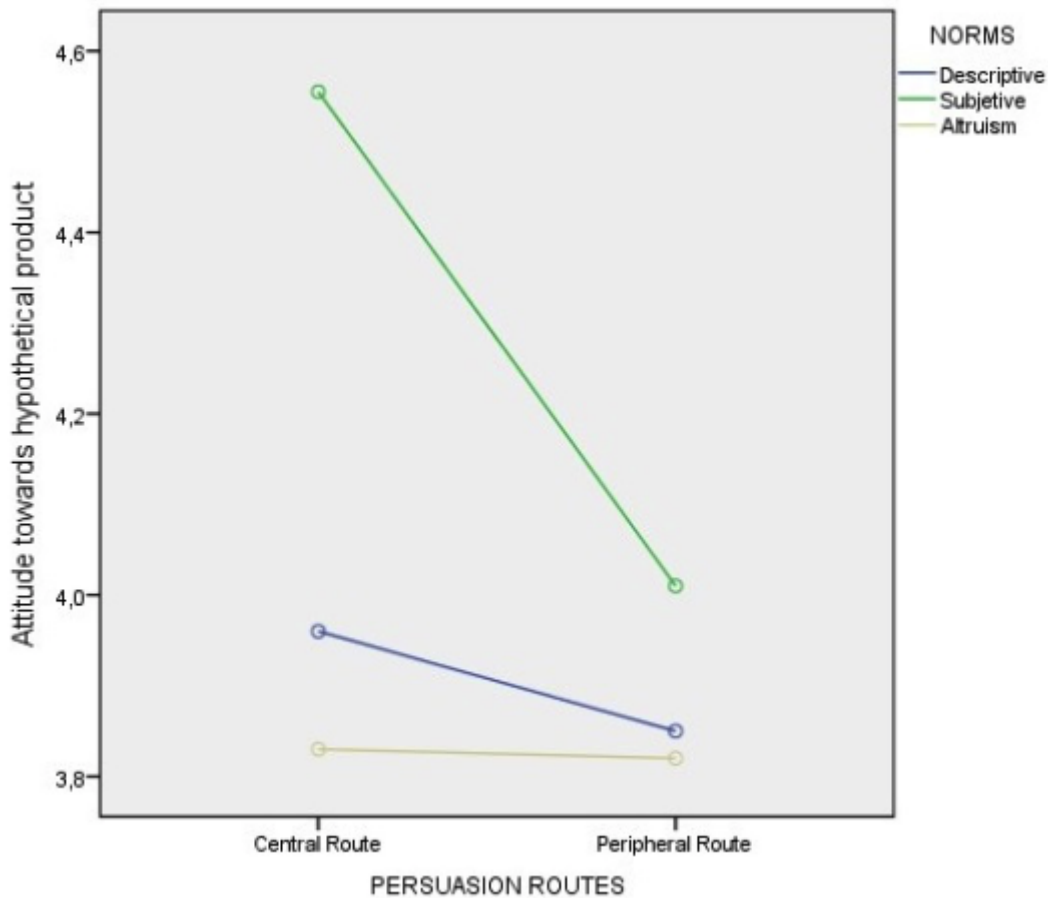
Attitude towards the commercial advertisement. 2 (persuasion routes: central vs. peripheral) x 3 (normative appeals: descriptive norm, subjective norm, altruism).



On the other hand, it was observed that there are no significant differences between the attitudes towards the product shown in the ads built under the central route and those of the peripheral route ($M_{central} = 4.11, SD = .72; M_{peripheral} = 3.89, SD = .75; F(2, N = 120) = -2.89, p = .09$). However, there are significant differences when it comes to the normative appeals of the message ($M_{descriptive} = 3.90, SD = .69; M_{subjective} = 4.28, SD = .59; M_{altruism} = 3.82, SD = .85; F(2, N = 120) = 2.09, p = .01$) (Figure 2). The effect of the interaction of persuasion routes and normative appeals were also not significant in regard to the attitude towards the hypothetical product $F(2, N = 120) = 1.58, p = .20$.

Figure 2

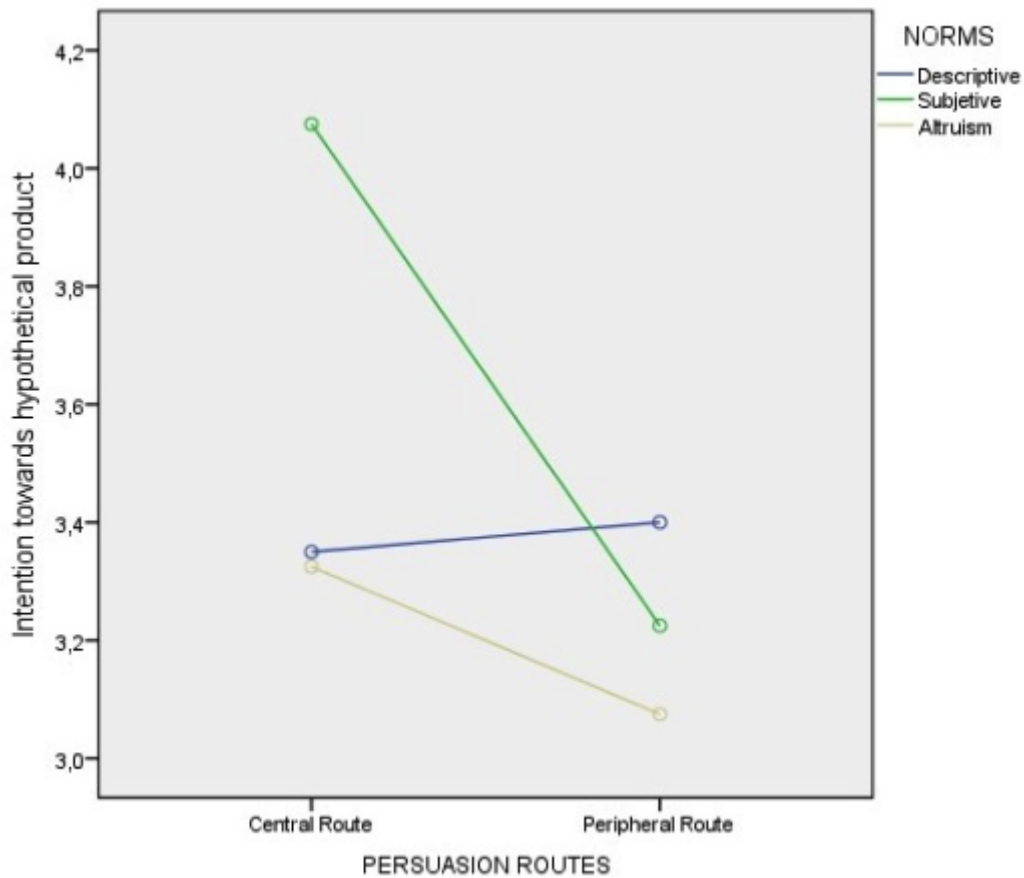
Attitude towards the hypothetical product. 2 (persuasion routes: central vs. peripheral) x 3 (normative appeals: descriptive norm, subjective norm, altruism)



Regarding the purchase intention and recommending the product category shown in the advertisements (Annex), the results of the analysis of variance show that there is a difference between the different experimental groups. Ads built for the central persuasion route (message: "...have 95% organic components") have a higher average than those built under the peripheral route (message: "...the good elements of nature are for your beauty") ($M_{central} = 3.58$, $SD = .86$; $M_{peripheral} = 3.23$, $SD = .82$; $H(2, N = 60) = 10.44$, $p = .0$). The findings also show that there were significant differences between the normative appeals in combination with the central route, the subjective norm (message: "Your family will thank you for it") being the one that shows the greatest intention ($descriptive M = 3.35$, $SD = .82$; $subjective M = 4.07$, $SD = .56$; $M_{altruism} = 3.32$, $SD = .96$; $H(2, N = 60) = 3.29$, $p = .0$). However, there are no significant differences between the different normative appeals of the message in combination with the peripheral route ($M_{descriptive} = 3.40$, $SD = .95$; $M_{subjective} = 3.22$, $SD = .61$; $M_{altruism} = 3.07$, $SD = .86$; $H(2, N = 60) = 3.29$, $p = .63$), (Figure 3).

Figure 3

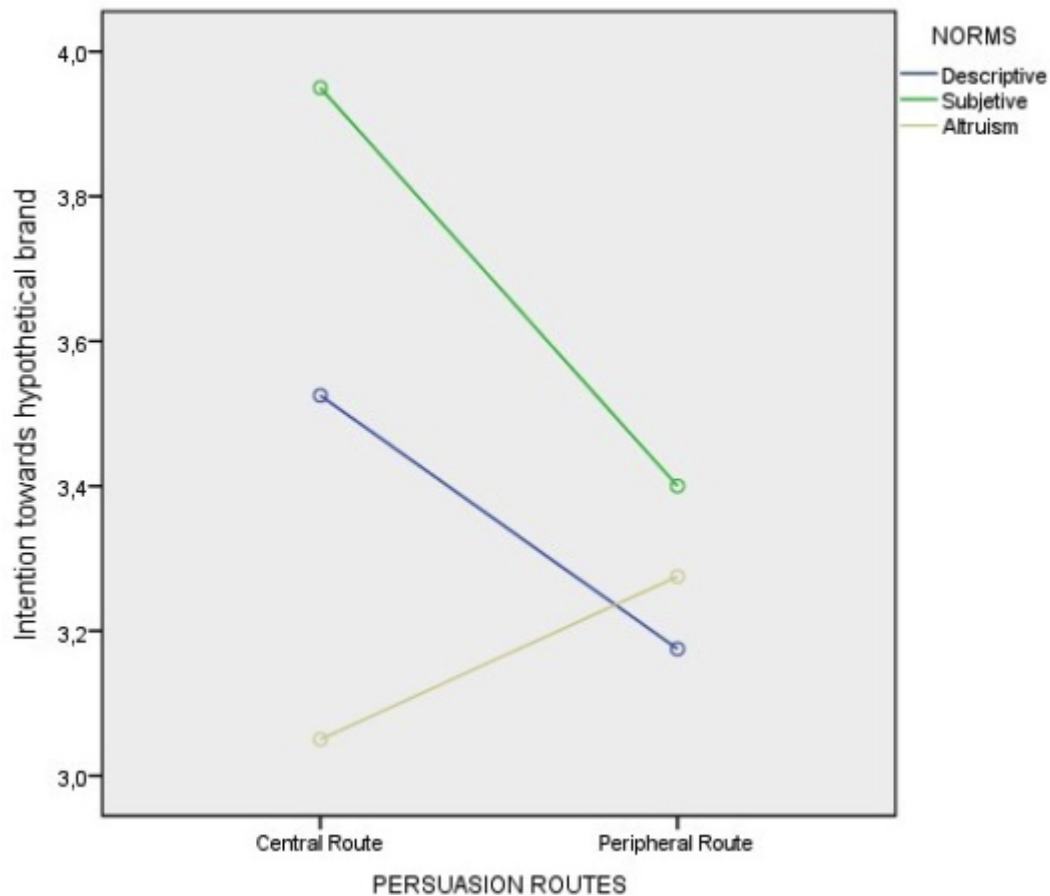
Intention towards the hypothetical product. 2 (persuasion routes: central vs. peripheral) x 3 (normative appeals: descriptive norm, subjective norm, altruism)



Finally, regarding the purchase intention and recommending the hypothetical brand shown in the ads built under the central persuasion route and the normative appeals, the results show a higher average in those that were built in the central route (message: "...have 95% organic components") ($M_{central} = 3.50, SD = .87; M_{peripheral} = 3.28, SD = .86$). The findings show significant differences between normative appeals in combination with the central route ($M_{descriptive} = 3.52, SD = 0.67; M_{subjective} = 3.95, SD = .45; M_{altruism} = 3.05, SD = 1.13, H(2, N = 60) = 3.29, p = .01$). However, there were no significant differences between the normative appeals in combination with the peripheral route (message: "...the good elements of nature are for your beauty") ($M_{descriptive} = 3.17, SD = .84; M_{subjective} = 3.40, SD = .61; M_{altruism} = 3.27, SD = 1.09, H(2, N = 60) = 3.29, p = .81$), (Figure 4).

Figure 4

Intention towards the hypothetical brand. 2 (persuasion routes: central vs. peripheral) x 3 (normative appeals: descriptive norm, subjective norm, altruism)



4. Discussion

Consistent with the previous literature, the findings of this research suggest that the effectiveness of the persuasive message of ecological advertising will be enhanced, if it is accompanied by messages associated with benefits for the reference groups that are close to the consumer. This contributes to the knowledge on how to use ecological information, to build more effective green advertising with important implications in its practice. For example, as the results in this study show, vendors and green advertising could align the subjective normative message with real, credible and rational information on ecological products or the environmental situation, in order to influence more consumers to adopt a consumption mode and a lifestyle that respects and takes care of the environment. Without any doubt, this is a very important challenge for governments, productive sectors and environmental organizations (White & Simpson, 2013).

This study makes several contributions to existing research on green advertising and ecological consumption. In fact, according to the findings this research shows the persuasion routes according to the model (ELM) have an impact on attitudes towards green advertising and on the intentions in this type of consumption, such as previous work also suggests. For instance, the messages associated with economic benefits have been studied (Casado, Hidalgo & García-Leiva, 2017), attitudinal differences in announcements for purchases of high participation with environmental requests (Chan, 2000; Chan, Leung & Wong, 2006), and the relationship between the intention to buy green and the ads that show conditions of proximal and distal gain or loss (Chang, Zhang & Xie, 2015).

Likewise, the processing of the numerical information of the ecological advertisements has been analyzed, in relation to the general knowledge towards the environmental issue and the degree of skepticism towards this type of advertising (Matthes & Wonneberger, 2014), the effectiveness of direct language or "Aggressive" (Kronrod, Grinstein & Wathieu, 2012), assertive (imperative) messages as opposed to those that present indirect suggestions (Miller, Lane, Deatrck, Young, & Potts, 2007; Baek, Yoon & Kim, 2015), the emotional response to ecological advertising based on threat and fear (Hartmann, Apaolaza, D'Souza, Barrutia & Echebarria, 2014; Chen, 2016) and the messages that appeal to guilt related to the urgency of environmental and awareness of the consumer (Chang, 2012).

On the other hand, this study also shows the results of the use of norms and their impact on attitudinal change through the message, similar to that suggested by other works regarding the use of norms and their proven incidence on pro-environmental behaviors. For example, with the

authenticity, money, cost, privacy (Carfora, Caso, Sparks & Conner, 2017; Ertz, Karakas & Sarigöllü, 2016), the value, price, knowledge, trust and culture, for ecological purchases (Yadav & Pathak, 2017; Liobikienė, Mandravickaitė & Bernatoniene, 2016) and with the concern, the environmental knowledge and past experiences, for the purchase of organic cosmetics (Kim & Chung, 2011). Similarly, regarding the perceived responsibility for the possible consequences of environmental actions (Stern, 2000, Stern, et al., 1999; Stern, Dietz, Kalof, & Guagnano, 1995), as well as the influence of personal norms in the organizational actions around the problem; for example, encourage the use of bicycles, motivate environmental protests, attend environmental meetings, among others (Gifford & Sussman, 2012).

Similarly related to descriptive or prescriptive norms. For example in the management of garbage and waste, where it was found that it depends on the context, the reference groups and the attention processes of people (Cialdini et al., 1990). The importance of the descriptive norm has also been demonstrated, observing that people improve their behavior if they believe that others are also contributing, demonstrating a willingness to cooperate assuming the material and individual cost to correct violators of said norms (Fehr & Gächter, 2002). Furthermore, Charalambides, Hilton & Waroquier (2015) found that consumers chose and paid more for products with eco-labels if the communication was based on the descriptive norms. Likewise, in the energy saving inside the home, where the message informed that the majority of residents used fans instead of air conditioning to cool the environment in the summer (Nolan, Schultz, Cialdini, Goldstein & Griskevicius, 2008). In the same way, the social status of the sponsors has been tested in combination with descriptive and prescriptive normative messages, identifying their incidence on attitudes towards ecological announcement and towards pro-environmental intentions (He, Fu, Li, & Guo, 2019). These findings agree with the suggestions of Cialdini (2003) about the importance of aligning and recognizing the difference between proenvironmental messages based on descriptive and prescriptive norms, an aspect that can make a difference in the persuasive effectiveness of communication.

To conclude, has been demonstrate the efficacy of the descriptive norm regarding energy conservation (Kantola, Syme, & Campbell, 1984), transport behavior (Kormos, Gifford and Brown, 2015), and as a strong predictor of pro-environmental behavior through its influence on the perception of behavioral control (Fornara, Carrus, Passafo & Bonnes, 2011)

In coherence with the above, these findings indicate that green advertising with rational aspects (message: "...have 95% organic components") is more likely to be associated with attitudinal and behavioral changes, when it is framed within a benefit, for reference groups close to the consumer (message: "Your family will thank you for it"). However, it seems that recollection, brand support and recognition of ecological products can influence the attitudes towards them and the behavioral intentions of consumers (Thøgersen, Jørgensen & Sandager, 2012; Coşkun, Vocino & Polonsky, 2017; Yu, Yu, & Chao, 2017). This taking into account that the purchase of ecological cosmetics entails a high involvement due to the implications for skin and health, being chosen for knowledge, brand loyalty, intrinsic properties and good promotion (Di Pietro, Oca & Josué, 2017; Yeon Kim & Chung, 2011; Dimitrova, Kaneva & Gallucci, 2009). The results here present help to deepen the knowledge about the role that the brand image can play and the positioning of the ecological products in the attitudes and behaviors of the people, when in these are highlighted the benefits for the reference groups of the consumer.

On the other hand, the findings shown here also contribute to the study of social norms. This paper evidence that the responses of consumers will be more favorable to normative appeals in the environmental context, when they are supported by credible and rational information. These results complement the previous empirical heritage and literature by offering an overview that integrates what is related to cognitive and normative models of persuasion, integrated in the context of green advertising, attitudes and pro-environmental behavior. The latter, when analyzing the effects of the characteristics of the pro-environmental messages, on attitudes and intentions consistent with social norms, as was done in relation to energy saving at home (Nolan et al., 2008), ecological labels (Charalambides, Hilton & Waroquier, 2015) and social status of sponsors (He, Fu, Li & Guo, 2019).

One of the limitations of this research comes from the characteristics of pro-environmental behavior. Previous literature indicates that the demographic characteristics of the consumer can influence attitudes and behaviors in favor of the purchase of ecological cosmetics (Kapogianni, 2011; Matic & Puh, 2015), and in their perception and willingness to follow social norms (Bohner & Schlüter, 2014). In this sense, the generalization of the effects observed in this study should still be examined with other particularities and demographic contexts, given the characteristics of the population sample used in this research. Another limitation is that only the attitudes and

intentions of the participants were measured, with respect to advertising, purchase and recommendation of unreal products in the category of ecological cosmetics. In this sense, although the literature and previous studies show that behavioral intentions and real behavior in this category of products are highly related (Kim & Chung, 2011), field investigations with existing products, actual measurements and observations of behavior, would contribute significantly to the empirical heritage in this study area.

Similarly, this work also supplies some potentially usable tools for future studies. It is very possible to prove the findings in social advertising or public benefits, related to environmental protection and supported by rational or emotional messages in combination with normative appeals. Finally, this research was carried out in Bogotá - Colombia, with social, cultural, economic and consumer particularities. In previous studies it has been observed that cultural contexts can influence the relative effectiveness of descriptive and prescriptive norms (Bohner & Schlüter, 2014). In this way, future research could analyze and verify if similar findings are obtained in other cultural contexts.

5. Conclusions

This research examined the effect of the persuasive message, based on the Probability of Elaboration (ELM) Model, in combination with the descriptive, subjective and personal norms (altruism) on the attitude towards advertising, the product and the intention to purchase a hypothetical brand of ecological cosmetics. In the experimental Phase (c), it was found that the use of messages built under the central route (message: "Buy ecological cosmetics, because they have 95% organic components...") in combination with appeals based on the subjective norm ("Your family will thank you for it"), are more effective in influencing attitudes towards advertisements, than when using the peripheral route (message: "Buy ecological cosmetics, because the good elements of nature are for your beauty...") in combination with normative appeals.

At the same time, significant differences were found in attitudes towards the hypothetical product shown in the advertising, in response to the messages constructed under normative appeals. In this case, it was the message regarding the subjective norm that had the greatest effect on attitudes.

Regarding the intention to buy and recommend the products in the hypothetical brand of ecological cosmetics announced in the advertising notice, it was observed that the intentions were greater when they were shown in the ads built under the central route of persuasion in combination with the subjective norm. Similarly, with respect to the hypothetical brand, the results showed that the central route in combination with the subjective norm is more effective in influencing the purchase intention and recommendation of a hypothetical brand of ecological cosmetics.

Finally, taking care of the environment has an undeniable importance, interest and concern for society. Different actors that include governments, companies and the academic sector are constantly seeking strategies to encourage environmental behaviors through green consumption through various actions within communication and social marketing. According to the findings of this study, it is evident that attitudes towards ecological advertising can improve if it is constructed with rational messages supported by normative appeals, implying the reference groups close to the audience. The same would happen with the behavioral intention on the consumption of the ecological. However, it is pertinent to observe the impact that recognized brands may have on the attitudinal and intentional changes of the consumer, which could also depend on the kind of product. The results of this research contribute to empirical knowledge about communication, advertising and marketing in relation to environmental issues, and leave possible unknowns that can be studied under other types of methodologies, audiences and socio-cultural contexts.

Bibliographic references

- Ajzen, I., 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. doi:10.1016/0749-5978(91)90020-T
- Armitage, Ch., & Conner, M. (1999). The theory of planned behaviour: Assessment of predictive validity and perceived control. *British Journal of Social Psychology*, 38, 35-54. doi:10.1348/014466699164022

- Baek, T. H., Yoon, S., & Kim, S. (2015). When environmental messages should be assertive: Examining the moderating role of effort investment. *International Journal of Advertising*, 34(1), 135-157. doi:10.1080/02650487.2014.993513
- Baghel, D., Parthasarthy, & Gupta, M. (2011). Innovation in Indian Small Scale Industries: Case Study of Cosmetics Small Scale Industry in Mumbai. *ASCI Journal of Management*, 91-108.
- Bohner, G., & Schlüter, L. E. (2014). A room with a viewpoint revisited: Descriptive norms and hotel guests' towel reuse behavior. *PloS One*, 9(8), e104086. doi:10.1371/journal.pone.0104086
- Carfora, V., Caso, D., Sparks, P., & Conner, M. (2017). Moderating effects of pro-environmental self-identity on pro-environmental intentions and behaviour: A multi-behaviour study. *Journal of Environmental Psychology*, 53, 92-99 doi:10.1016/j.jenvp.2017.07.001
- Casado, F., Hidalgo, M. C., & García-Leiva, P. (2017). Energy efficiency in households: The effectiveness of different types of messages in advertising campaigns. *Journal of Environmental Psychology*, 53, 198-205. doi:10.1016/j.jenvp.2017.08.003
- Chan, R. (2000). The effectiveness of environmental advertising: the role of claim type and the source country green image. *International Journal of Advertising*, 19(3), 349-375. doi:10.1080/02650487.2000.11104806
- Chan, R. Y., Leung, T. K. P., & Wong, Y. H. (2006). The effectiveness of environmental claims for services advertising. *Journal of Services Marketing*, 20(4), 233-250. doi:10.1108/08876040610674580
- Chang, C. T. (2012). Are guilt appeals a panacea in green advertising? The right formula of issue proximity and environmental consciousness. *International Journal of Advertising*, 31(4), 741-771. doi:10.2501/ija-31-4-741-771
- Chang, H., Zhang, L., & Xie, G. X. (2015). Message framing in green advertising: The effect of construal level and consumer environmental concern. *International Journal of Advertising*, 34(1), 158-176. doi:10.1080/02650487.2014.994731
- Charalambides, B., Hilton, D., Waroquier, L., (2015). Nudging sustainable consumption: The use of descriptive norms to promote a minority behavior in a realistic online shopping environment. *Journal of Environmental Psychology*. 43, 166-174. doi:10.1016/j.jenvp.2015.06.008
- Chen, M. F. (2016). Impact of fear appeals on pro-environmental behavior and crucial determinants. *International Journal of Advertising*, 35(1), 74-92. doi:10.1080/02650487.2015.1101908
- Cialdini, R. B. (2003). Crafting normative messages to protect the environment. *Current Directions in Psychological Science*. 12, 105-109. doi:10.1111/1467-8721.01242
- Cialdini, R. B., Reno, R. R. & Kallgren, A. A. (1990). A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. *Journal of Personality and Social Psychology*, 58(6), 1015-1026. doi:10.1037/0022-3514.58.6.1015
- Coşkun, A., Vocino, A., & Polonsky, M. (2017). Mediating effect of environmental orientation on pro-environmental purchase intentions in a low-involvement product situation. *Australasian Marketing Journal (AMJ)*, 25(2), 115-125. doi:10.1016/j.ausmj.2017.04.008
- Di Pietro, H., Oca, I., & Josué, C. (2017). Estudio de los beneficios de la Biocosmética en comparación con la cosmética industrial. *XXVIII CONGRESO DE INVESTIGACIÓN CUAM-ACMor*.
- Dimitrova, V., Kaneva, M., & Gallucci, T. (2009). Customer knowledge management in the natural cosmetics industry. *Industrial Management & Data Systems*, 109(9), 1155-1165. doi:10.1108/02635570911002243
- Duerden, M. D. & Witt, P. A. (2010). The impact of direct and indirect experiences on the development of environmental knowledge, attitudes, and behaviour. *Journal of Environmental Psychology*, 30, 379-392. doi: 10.1016/j.jenvp.2010.03.007
- Ertz, M., Karakas, F., & Sarigöllü, E. (2016). Exploring pro-environmental behaviors of consumers: An analysis of contextual factors, attitude, and behaviors. *Journal of Business Research*, 69(10), 3971-3980. doi: 10.1016/j.jbusres.2016.06.010
- Fornara, F., Carrus, G., Passafaro, P. & Bonnes, M. (2011). Distinguishing the sources of normative influence on proenvironmental behaviors: The role of local norms in household waste recycling. *Group Processes & Intergroup Relations*, 14, 623-635. doi: 10.1177/1368430211408149

- Fehr, E. & Gächter, S., (2002). Strong reciprocity, human cooperation, and the enforcement of social norms. *Human Nature*, 13 (1), 1-25
- Giesler, M., & Veresiu, E. (2014). Creating the responsible consumer: Moralistic governance regimes and consumer subjectivity. *Journal of Consumer Research*, 41(3), 840-857. doi: 10.1086/677842
- Gifford, R. & Sussman, R. (2012). Environmental attitudes. En S. D. Clayton (Ed.), *The Oxford Handbook of Environmental and Conservation Psychology*. Oxford University Press
- Grunert, S. C. (1993). Everybody seems concerned about the environment: but is this concern reflected in (Danish) consumers' food choice?. *ACR European Advances*.
- Hartmann, P., Apaolaza, V., D'Souza, C., Barrutia, J., & Echebarria, C., (2015). Environmental threat appeals in green advertising. The role of fear arousal and coping efficacy. *International Journal of Advertising*, 33(4), 741-765. doi: 10.2501/ija-33-4-741-765
- Hartmann, P., & Apaolaza-Ibáñez, V. (2009). Green advertising revisited: Conditioning virtual nature experiences. *International Journal of Advertising*, 28(4), 715-739. doi: S0265048709200837
- He, H., Fu, J., Li, X., & Guo, R. (2019). The interplay between endorser social status and normative appeals on the endorsement effectiveness of pro-environmental behaviors. *PloS one*, 14(1), e0210699. doi: 10.1371/journal.pone.0210699
- Hillhouse, J., Turrisi, R., & Kastner, M. (2000). Modeling tanning salon behavioral tendencies using appearance motivation, self-monitoring and the theory of planned behavior. *Health Education Research*, 15(4), 405 - 414. doi: 10.1093/her/15.4.405
- Hogg, M., & Vaughan, G. (2010). *Psicología social*. Madrid: Editorial Médica Panamericana.
- Jones, P., Clarke-Hill, C., Comfort, D. and Hillier, D. (2007), Marketing and sustainability, *Marketing Intelligence & Planning*, Vol. 26 No. 2, pp. 123-130. doi: 10.1108/02634500810860584
- Kanchanapibul, M., Lacka, E., Wang, X., & Chan, H. K. (2014). An empirical investigation of green purchase behaviour among the young generation. *Journal of Cleaner Production*, 66, 528-536. doi: 10.1016/j.jclepro.2013.10.062
- Kantola, S. J., Syme, G. J., & Campbell, N. A. (1984). Cognitive dissonance and energy conservation. *Journal of Applied Psychology*, 69(3), 416-421. doi: 10.1037/0021-9010.69.3.416
- Kapogianni, M. (2011). Attitudes and intention toward organic cosmetics in Greece an exploratory study. *School of Economics & Business Administration*, 14-20.
- Kim, Y., & Chung, J., (2011) Consumer purchase intention for organic personal care products, *Journal of Consumer Marketing* 28(1)40-47. doi: 10.1108/07363761111101930
- Kim, Y., Yun, S., Lee, J., & Ko, E. (2016). How consumer knowledge shapes green consumption: an empirical study on voluntary carbon offsetting. *International Journal of Advertising*, 35(1), 23-41. doi: 10.1080/02650487.2015.1096102
- Kormos, C., Gifford, R., & Brown, E. (2015). The influence of descriptive social norm information on sustainable transportation behavior: a field experiment. *Environment & Behavior*, 47, 479-501. doi:10.1177/0013916513520416
- Kronrod, A., Grinstein, A., & Wathieu, L. (2013, May). Go green! Should environmental messages be so assertive. *Journal of Marketing*. 76, 95-102. doi: 10.1509/jm.10.0416
- Lee, M.J., Back, K., 2007. Association members' meeting participation behaviors: development of meeting participation model. *Journal of Travel & Tourism Marketing* 22 (2), 15-33. doi: 10.1300/J073v22n02_02
- Manrai, L. A., Manrai, A. K., Lascu, D. N., & Ryans, J. K. (1997). How green-claim strength and country disposition affect product evaluation and company image. *Psychology & Marketing*, 14(5), 511-537. doi: 10.1002/(SICI)1520-6793(199708)14:5<511::AID-MAR5>3.0.CO;2-B
- Matić, M., & Puh, B. (2016). Consumers' purchase intentions towards natural cosmetics. *Ekonomski vjesnik/Econviews-Review of Contemporary Business, Entrepreneurship and Economic Issues*, 29(1), 53-64.
- Matthes, J., & Wonneberger, A. (2014). The skeptical green consumer revisited: Testing the relationship between green consumerism and skepticism toward advertising. *Journal of advertising*, 43(2), 115-127. doi: 10.1080/00913367.2013.834804

- Miller, C. H., Lane, L. T., Deatrck, L. M., Young, A. M., & Potts, K. A. (2007). Psychological reactance and promotional health messages: The effects of controlling language, lexical concreteness, and the restoration of freedom. *Human Communication Research, 33*(2), 219-240. doi: 10.1111/j.1468-2958.2007.00297.x
- Moisander, J. (2007). Motivational complexity of Green consumerism. *International Journal of Consumer Studies, Vol. 31* No. 4, pp. 404-430. doi: 10.1111/j.1470-6431.2007.00586.x
- Nimse, P., Vijayan, A., Kumar, A., & Varadarajan, C. (2007). A review of green product databases. *Environmental Progress & Sustainable Energy, 26*(2), 131-137. doi: 10.1002/ep.10210
- Nolan, J. M., Schultz, P. W., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2008). Normative social influence is underdetected. *Personality and social psychology bulletin, 34*(7), 913-923. Retrieved from: <http://csusm-dspace.calstate.edu/bitstream/handle/10211.3/199465/Schultz200834.pdf?sequence=1>
- Páramo, P., (2017), Reglas proambientales: una alternativa para disminuir la brecha entre el decir-hacer en la educación ambiental. *Suma psicológica, 24*, 42-58. doi: 10.1016/j.sumps.2016.11.001
- Petty R., & Cacioppo J. (1986), The Elaboration Likelihood Model of Persuasion. *Advances in experimental social psychology, 19*,123-205. doi: 10.1007/978-1-4612-4964-1_1
- Petty, R. E., & Wegener, D. T. (1998). Matching versus mismatching attitude functions: Implications for scrutiny of persuasive messages. *Personality and Social Psychology Bulletin, 24*(3), 227-240. doi: 10.1177/0146167298243001
- Petty, R. E., Cacioppo, J. T., Strathman, A. J., & Priester, J. R. (2005). To think or not to think. *Persuasion: Psychological insights and perspectives, 81-116*.
- Rajput, N. (junio de 2016). ALLIED Market Research Report. Retrieved from: <https://www.alliedmarketresearch.com/cosmetics-market>
- Ritter, A. M., Borchardt, M., Vaccaro, G. L., Pereira, G. M., & Almeida, F. (2015). Motivations for promoting the consumption of green products in an emerging country: exploring attitudes of Brazilian consumers. *Journal of Cleaner Production, 106*, 507-520. doi: 10.1016/j.jclepro.2014.11.066
- Royne, M. B., Levy, M., & Martinez, J. (2011). The public health implications of consumers' environmental concern and their willingness to pay for an eco-friendly product. *Journal of Consumer Affairs, 45*(2), 329-343. doi: 10.1111/j.1745-6606.2011.01205.x
- Tseng, S. C., & Hung, S. W. (2013). A framework identifying the gaps between customers' expectations and their perceptions in green products. *Journal of Cleaner Production, 59*, 174-184. doi: 10.1016/j.jclepro.2013.06.050
- Smith, J. R., Louis, W. R., Terry, D. J., Greenaway, K. H., Clarke, M. R., & Cheng, X. (2012). Congruent or conflicted? The impact of injunctive and descriptive norms on environmental intentions. *Journal of Environmental Psychology, 32*(4), 353-361. doi: 10.1016/j.jenvp.2012.06.001
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: the case of environmental concern. *Human Ecology Review, 6*(2), 81-97.
- Stern, P. C., Dietz, T., Kalof, L., & Guagnano, G. A. (1995). Values, beliefs, and proenvironmental action: attitude formation toward emergent attitude objects. *Journal of Applied Social Psychology, 25*(18), 1611-1636. doi: 10.1111/j.1559-1816.1995.tb02636.x
- Stern, P. C. (2000). New environmental theories: toward a coherent theory of environmentally significant behavior. *Journal of social issues, 56*(3), 407-424. doi: 10.1111/0022-4537.00175
- Thøgersen, J., Jørgensen, K., & Sandager, S. (2012). Consumer decision making regarding a "green" everyday product. *Psychology & Marketing, 29*(4), 187-197. doi: 10.1002/mar.20514
- Todd, A. M. (2004). The aesthetic turn in green marketing. *Ethics & The environment 9*, 86-102.
- Wen, F., Gong, X., & Cai, S. (2016). Forecasting the volatility of crude oil futures using HAR-type models with structural breaks. *Energy Economics, 59*, 400-413. doi: 10.1016/j.eneco.2016.07.014
- White, K. M., Smith, J. R., Terry, D. J., Greenslade, J. H. & McKimmie, B. M. (2009). Social influence in the theory of planned behaviour: The role of descriptive, injunctive, and in-group norms. *British Journal of Social Psychology, 48*, 135-158. doi: 10.1348/014466608x295207

White, K., & Simpson, B. (2013). When do (and don't) normative appeals influence sustainable consumer behaviors?. *Journal of Marketing*, 77(2), 78-95. doi: 10.1509/jm.11.0278

Yadav, R., Pathak, G.S., (2017). Determinants of Consumers' Green Purchase Behavior in a Developing Nation: Applying and Extending the Theory of Planned Behavior. *Ecological Economics*. 134, 114–122. doi: 10.1016/j.ecolecon.2016.12.019]

Yu, T. Y., Yu, T. K., & Chao, C. M. (2017). Understanding Taiwanese undergraduate students' pro-environmental behavioral intention towards green products in the fight against climate change. *Journal of Cleaner Production*, 161, 390-402. doi: 10.1016/j.jclepro.2017.05.115

1. Profesor Investigador Universidad Jorge Tadeo Lozano, Escuela de Publicidad, Colombia. Doctorando en Psicología. Fundación Universitaria Konrad Lorenz. Email: Fernando.marroquinc@utadeo.edu.co

2. Profesora investigadora. Fundación Universitaria Konrad Lorenz, Colombia. Email: marithza.sandoval@konradlorenz.edu.co

3. Profesora investigadora Fundación Universitaria Konrad Lorenz, Colombia. Email: myriamc.sierrap@konradlorenz.edu.co

revistaESPACIOS.com



This work is under a Creative Commons Attribution-
NonCommercial 4.0 International License