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How CSR claims in advertising affect children's preferences and purchase
intentions

Carolina Perestrelo de Lemos #1147

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Abstract

This research project aims at studying the impact of the use of CSR claims in advertising towards children, by analyzing the impact of different executional cues of an advertisement created for this purpose. We measured the impact on the following independent variables: attitude towards the product and the advertisement, perceived healthiness of the product, package evaluation and purchase intention. An experiment was conducted with 193 children from 10 to 12 years old, controlling the individual variables related to environmental concern and previous social responsible behaviour of the child.

Results showed significant correlations between the independent variables analyzed, and a negative impact in attitude towards the product caused by the introduction of two CSR claims in the case of girls. Moreover, the high level of environmental concern and participation of children was confirmed. Based on these results, some lines of actions are suggested.

Key words: Advertising, Corporate Social Responsibility (CSR), Attitude towards the ad, Attitude towards the product, Purchase intention.

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Introduction

Many companies use marketing strategies targeting children, due to the potential of building strong and lasting relationships with the target (Crane and Kasmi, 2010). There is also a big amount of research on advertising targeted at children, its effects on attitudes and behaviours of children and parents, and the recognition of its persuasive intent by children (McNeal, 1992).

At the same time, companies are increasing their investment in Corporate Social Responsibility (CSR) practices as a mean to increase their competitive advantage in the market. Research concerning these initiatives and its potential benefits is gaining more relevance and several studies confirmed the positive effects of CSR in key stakeholder groups (Sen, 2004). CSR strategies range from social to environmental subjects, assuming different forms, and the communication of those initiatives to key stakeholders' groups is a crucial aspect to its effectiveness. Through schools, children are trained in and taught about environmental issues, and they engage in pro-environmental behaviours since early-ages.

CSR claims are used in advertising in a general way with no specific target although some experiences using children (e.g. advertising about recycling behaviours) have

proved to be successful. However, little research exists that addresses CSR claims effects on children.

The present study aims at researching the impact of CSR claims on children in advertising. It will approach advertising targeting children as a potential vehicle of communication of companies' CSR practices. This study will use two common CSR claims used in advertising (local sourcing and CRM environmental actions) and will assess their impact on attitude and behaviour of children towards the product. It will also monitor gender effects and the potential differentiator aspect of two individual variables, environmental concern and previous social responsible behaviour of the child.

Literature review and Research Questions

Children and Advertising

Children have huge potential as consumers since they are three markets in one: a primary market, due to the products purchased with pocket money, an influence market over their parents, and future market since they will be adult consumers in the future (McNeal, 1992). Therefore, children are often the target of campaigns aiming at creating brand loyalty since an early age (Moore et al. 2002).

The focus of this study will be children aged from 10 to 12 years, the oldest part of what Piaget defined as the concrete operational stage (from 7 to 11 years old - Piaget and Inhelder, 1972). During this period, children begin to understand that perceptual manipulations, like the ones present in commercials, do not change the underlying properties of objects. They start perceiving the persuasive intent behind advertising, moving from the initial perception that the purpose of commercials is to help them in purchasing decisions. According to Oates et al. (2001), young children tend to recognize and recall advertising well, but only around 8-12 years old they have a good

understanding of its persuasive intent. However, this understanding might not be present when forming judgments (Moore, 2004).

CSR

Several definitions emerged concerning the concept of CSR. CSR can be described as a set of practices that improve the workplace and benefit society in ways that go above and beyond what companies are legally required to do. The European Commission (2010) defines CSR as “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis.” More companies than ever are engaging in CSR initiatives such as cause-related marketing, corporate philanthropy, minority support programs and socially responsible employment and manufacturing practices (Bhattacharya and Sen, 2004).

The investment in CSR activities is due to its potential influence on consumers’ attitudes and behaviours, to its strategic role and differentiator element. In fact, the benefits of CSR initiatives have been assessed by several studies. For example, Luo and Bhattacharya (2006) found that CSR increases customer satisfaction, which in turn leads to positive financial returns. According to Brønn and Vrioni (2001), only a consistent, credible contribution to a cause can build brand image and brand equity. The communication of CSR policy is a crucial component of the equation, and must be handled carefully since it can bring benefits to the company but may also influence consumers’ skepticism.

Among CSR activities, the focus of companies has been shifting towards Cause Related Marketing (CRM) initiatives, as a way of aligning strategic objectives with ‘doing good’. CRM involves a company’s promise to donate a certain amount of money to a

social cause when customers engage in a purchase (Nan and Heo, 2007). This way, by supporting a social cause, a company can achieve its marketing objectives through CRM. Most CSR activities are targeted at adults, but the growth of the children market and the interest of marketers over this target, puts urgency upon research on this group, the question being whether they respond to the CSR stimulus in the same manner as adults.

Children and environmental concern

Environmental issues are a growing concern in children's everyday life, being taught at school through topics such as recycling. Thus, a certain degree of environmental concern is arising in children's minds, and behaviours are changing. Schultz (2000) states that environmental concern refers to the affect associated with environmental problems. A study conducted by Strife (2012) on children found that 82% expressed environmental concern when asked about that subject. Moreover, Hicks and Holden (2007) found that many children are fearful and pessimistic about environmental issues. In a study conducted to children between 4 and 12 years old, Chaves et al. (2007) found that 30% of the sample had an interest in recycling and environment related themes. On the other hand, some companies face charges on pollution and nature destruction as a consequence of their operations. This leads companies to engage in pro-environmental projects as part of its CSR strategy.

Local sourcing

A different approach to CSR is what Öberseder et al. (2013) called 'Supplier CSR domain', which relates to the corporations' responsibilities towards their suppliers. In this study, consumers pointed out that companies should give preference to local and regional suppliers. Companies can communicate the local production of their products,

as a way of boosting local development but also to generate positive effects on consumers' attitude towards the product. In fact, Elliot and Cameron (1994) found a positive influence of the claims of local production on consumers' product choice. Also, 'origin is one product attribute that affects the meanings consumers associate with food' (Luomala, 2007). Dentoni et al. (2009) found that consumers used the fact that an apple was locally grown as a source of increased perceptions of sweetness, flavour and healthiness of that product. This way, a claim of local production will be introduced in this study to analyze if children's attitude towards the product and perceived healthiness will be effected.

Purpose of the study

According to Hoeffler and Keller (2002), an important aspect related to the development of cause-related marketing campaigns is the selection of a cause that resonates with customers. Bhattacharya et al. (2010) explain this aspect with the stakeholders' motivation to process CSR information. Moreover, Petty et al. (1981) showed that information perceived as self-relevant will trigger voluntary attention. Drumwright (1996) supports this view by finding a positive relationship between the affinity or attitudes held towards a cause and the perceived likelihood of the campaign's success. Moreover, like previously mentioned, CSR communication is a crucial aspect of the strategy effectiveness.

This research will study the effect of the introduction of two CSR components on a product's advertisement. These two components are an environmental claim combined with a CRM practice, and a specific social responsible behaviour of the company, which is the local sourcing of products. Following the model presented by McNeal (1992), the effects of advertising on children will be studied in terms of attitudes (towards the

product and the ad) and behaviour (consumption and purchase intention). Furthermore, two moderators will be introduced, in line with the CSR components that will be highlighted through the advertisement: environmental concern and previous social responsible behaviour. This exploratory study will answer the following research questions:

RQ1: What are the most significant correlations among the different variables analyzed?

RQ2: Are there any significant differences in children's attitudes and behaviours towards the product and ad when a CSR component is included in the ad? Are the correlations between the variables affected by a CSR claim?

RQ3: Is gender a differentiator aspect in children's reaction to advertising?

RQ4: Are children actually concerned about the environment and engage in socially responsible behaviours? Do those factors have an influence on their attitudes and behaviours towards the ad and product when faced with an environment CSR claim?

Methodology

Legal and ethical requirements

The study was conducted with the required authorization from the schools and participating children's parents. Moreover, children were given the option of not participating in this study, and the fact that there are no right or wrong answers was highlighted beforehand.

Sample

The sample of this study is children from 10 to 12 years old. Like previously explained, it corresponds to the concrete operational stage defined by Piaget (1972). According to John (1999), it is also part of the analytical stage, during which children gain the ability

to analyze products according to more than one dimension at a time. Also, their knowledge of advertiser techniques and brands becomes much more sophisticated.

Two schools in Lisbon participated in this study and 289 authorizations were sent to the parents. 194 children were allowed to participate, thus a response rate of 67%. One of the students was not present during the day of the study, which makes a sample of 193 children. The sample is composed of 60,6% females and 86% of children's parents has some sort of degree. Students sampled were randomly and equally distributed by the four different groups.

Table 1 – Distribution of the sample by group and gender

	Control Group		Experimental Group I		Experimental Group II		Experimental Group III	
	Male	Female	Male	Female	Male	Female	Male	Female
N	23	26	20	28	13	35	20	28
% within group	46,9%	53,1%	41,7%	58,3%	27,1%	72,9%	41,7%	58,3%

Children's participation in this study was done through structured questionnaires, due to its quick administration and effectiveness in obtaining information about children's attitudes (Greig et al., 2007). Questions were designed in 5-point scales, to guarantee the levels' differentiation by children and also smiley faces were used, due to its visual appeal and to facilitate comprehension (Greig et al. 2007; McNeal, 1992). Moreover, bias was reduced by assuring that all the answers were anonymous and informing children there were no right or wrong answers (Podsakoff et al., 2003).

Research design

Given the focus of this study, it was necessary to choose a product to be included in a fictitious advertisement. The product category chosen was soft drinks, more precisely orange juice. This product has a healthy component and is part of the consumption set of children. In fact, Chaves et al. (2007) found that, when choosing juices, children select the product by themselves 38% of time and 24% of the time with their parents.

Moreover, McNeal (1992) states that soft drinks can target children in the three markets they belong to, i.e. primary, influencer and future consumers.

For the purpose of this study, an unfamiliar brand was included in the advertisement, as a way of eliminating possible attitudes and preferences towards a known brand, which adds internal validity to the study. This way, the Brazilian orange juice brand ‘Su Fresh’ was selected, checking children’s familiarity with it in the questionnaire. This brand was chosen due to the appropriateness of its package and the information on it to this study and because the packaging was already in Portuguese. Children were assessed through a structured questionnaire, which was distributed and filled in class (**Appendix B**). A small questionnaire was sent to the parents, attached to the authorization letter, in order to gather information on social class and beverages consumption patterns.

The experiment was conducted by manipulating the independent variable, the CSR claims, as the executional cue of the advertising. The whole sample was divided in four homogeneous groups: a control group which would be subject to the ad without the CSR claim; an experimental group I who would be exposed to the CSR claim pertaining to local sourcing; an experimental group II exposed to the CSR claim about the CRM cause (a fictitious cause related to planting trees in one region in Portugal); and finally an experimental group III who would be exposed to an ad which included both CSR claims.

Procedure

The new orange juice was presented in an A4 format, to replicate an advertisement that could be seen by children on a magazine or other printed support (**Appendix A**). Its design and claims were based on existing juice advertisements. The base advertisement presents the words ‘*new*’, ‘*refreshing flavour*’ and ‘*vitamins rich*’ and was shown to the

control group (CG). The second version, showed to experimental group I (EGI), adds to these words the claim ‘Orange from Algarve’. The second experimental group (EGII), besides the base advertisement, was presented with the claim ‘Su Fresh protects the environment. For every 1000 juices sold, we will plant a tree in Serra da Estrela’. This claim represents the CRM component of the advertisement. Finally, the third experimental group (EGIII) combines the messages of the control group and the two experimental groups.

Pre-test

In order to test the appropriateness of the advertisement created and the cause scenario, a pre-test divided in two parts was conducted with 10 children from 10 to 12 years old. The first part tested the credibility of the advertisement, and the attractiveness of the product selected. Results showed that the advertisement previously designed was considered credible and the product attractive. The second part addressed the level of fit between the product and the cause chosen for the CRM component, in this case environment protection and planting of trees¹. Results confirmed the high fit between the category of the product advertised and environmental issues. The second pre-test, conducted with the same children, addressed the final questionnaire. It confirmed its adequate length to children and two items were eliminated from one scale due to its lack of understanding by the target.

Measures

To measure **purchase intention**, children were asked about the probability of buying the product or asking their parents to buy, based on the study conducted by Phelps and

¹ Several studies addressed the impact in brand attitude and purchase intention of the level of fit between the cause and the company. Becker-Olsen et al. (2006) and Elving (2013) found that higher levels of fit lead to less skepticism and the initiative is seen as appropriate, which influences positively attitude towards the company and purchase intention.

Hoy (1996). Moreover, **consumption intention** was measured through the probability of consuming the product.

The variable **package evaluation** was measured through a two-item 5-point semantic differential scale, based on the study made by Schoormans and Robben (1996), which was then adapted by Pires and Agante (2011). It is composed by ‘ugly-beautiful’ and ‘does not confer quality-confers quality’. **Attitude towards the product** was assessed through a three item, 5-point semantic differential scale, based on the study by Dixon et al. (2007) and adapted by Pires and Agante (2011). This scale contained the items ‘boring-fun’, ‘familiar-unfamiliar’ and ‘tastes bad-tastes good’. In order to measure **perceived healthiness of the product**, studies by Dixon et al. (2007) and Pires and Agante (2011) were once again used. This way, children were asked how healthy they think the juice is, through a 5-point scale (1- ‘very unhealthy’, 5- ‘very healthy’).

Attitude towards the ad was measured through the scale used by Phelps and Hoy (1996), which was tested in children, thus it should be easily understandable by the target of our study. It consists of a 5-point semantic differential scale composed by the items ‘hate it-like it a lot’, ‘boring-exciting’, ‘stupid- great’, and ‘dull-fun’. In order to measure **environmental concern**, we combined two previous papers. On one hand, the 5 item differential semantic scale used by Mohr et al. (1998) was reduced to three items, after the pre-test confirmed that two items (involving and personally relevant) were not understood by children and could be replaced by an already existing one, i.e. ‘important’. On the other hand, three of the four most cited environmental issues by children in a study conducted by Strife (2012) were considered as representative of the main topics that concern children, i.e. nature, environment and animals. In order to determine the degree of **children’s previous participation in social/environmental**

programs and engagement in social responsible behaviour, items from two previous studies (Youn and Kim 2008; Lange et al. 2007) were combined and adapted to the target. This way, a five-item, 5-point Likert scale was designed (called ‘**previous participation**’), including questions on recycling behaviour and volunteer experience for example. In order to assess the **relative importance of each element in the choice of the product**, children were asked to rank different aspects of the advertisement. Although no relevant previous studies applied this method, it was considered relevant to introduce it in our research. This way, the impact of the environmental or local claim could be assessed directly comparing it with the other advertisement’s components. The number of items to be classified varied according to the group, i.e. the advertisement shown to the child. Finally, and as a way to guarantee that all children would pay attention to the advertisement at the start of the questionnaire a question was introduced where children had to identify the elements that were present in the advertisement. This question was suggested by an expert researcher in consumer behaviour with CSR.

Results

To begin with, results confirmed the expected non-familiarity with the brand Su Fresh (85% of the children did not recognize the brand). This way, there was the guarantee that there were no previous attitudes towards the brand affecting children’s evaluation of the product. Also, we did not notice any difference in the children that knew the brand when compared to those who did not know it.

The first step was to check the reliability of the compound variables, by analyzing the Cronbach Alphas of the used scales and comparing them with the alphas from the original scales. All the scales were consistent (Table 2), except for the Attitude towards the product. In fact, the third item (familiar-unfamiliar) of this scale was not consistent

with the other two, thus was excluded from the analysis. (Alpha with 3-items= 0,511; Alpha with 2-items= 0,668). This might be due to the fact that some children did not understand what was being asked in this question. For each group of consistent items, a compound variable was then created, based on these items' means.

Table 2- Cronbach alphas for each scale and from the original scales.

Scale	Alpha	Original Alpha
Package evaluation (Q4.1 + Q4.2)	0,629	0,71
Attitude towards product (Q5.1 + Q5.2)	0,668	0,72– 0,85
Attitude towards ad (Q7.1 + Q7.2 + Q7.3 + Q7.4)	0,792	0,94
Environmental concern (Q9.1 + Q9.2 + Q9.3)	0,806	-
Previous participation (Q10.1 + Q10.2 + Q10.3 + Q10.4 + Q10.5)	0,679	-

Research questions analysis²

RQ1: What are the most significant correlations among the different variables analyzed?

The first step conducted in the SPSS analysis was the computation of the correlations between the variables from the questionnaire. As a starting point, a broad approach was taken, analyzing the entire sample with no distinctions among groups. Results confirmed some relations that are already suggested by previous research in advertising.

		Purchase intention	Consumption intention	Package evaluation	Attitude towards product	Perceived healthiness	Attitude towards ad
Purchase intention	Pearson Correlation	1	,842**	,433**	,569**	,373**	,414**
	Sig. (2-tailed)		,000	,000	,000	,000	,000
	N	193	192	185	176	179	178
Consumption intention	Pearson Correlation		1	,409**	,556**	,343**	,380**
	Sig. (2-tailed)			,000	,000	,000	,000
	N		192	184	175	178	177
Package evaluation	Pearson Correlation			1	,649**	,371**	,631**
	Sig. (2-tailed)				,000	,000	,000
	N				172	173	177
Attitude towards product	Pearson Correlation				1	,430**	,663**
	Sig. (2-tailed)					,000	,000
	N				176	169	168
Perceived healthiness	Pearson Correlation					1	,427**
	Sig. (2-tailed)						,000
	N					179	168
Attitude towards ad	Pearson Correlation						1
	Sig. (2-tailed)						
	N						178

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

Thus, there was a significant correlation between purchase and consumption intention (R=0,842, p=0,000); attitude towards the ad and: attitude towards the product (R=

² For more details of SPSS analysis refer to Appendix I for RQ1, Appendix II for RQ2, Appendix III for RQ3 and Appendix IV for RQ4.

0,663, $p=0,000$); package evaluation ($R=0,631$, $p=0,000$). Moreover, it was found a positive relationship between attitude towards the product and: purchase intention ($R=0,569$, $p=0,000$); consumption intention ($R=0,556$, $p=0,000$); package evaluation ($R=0,649$, $p=0,000$). The variable ‘perceived healthiness’ showed weak correlations with the other items analyzed ($R<0,5$). This way, we conclude that by developing advertising campaigns, marketers know they can influence the liking of the product and the evaluation of the packaging, which will have effects on their wish for purchasing and consuming it.

RQ2: Are there any significant differences in children’s attitudes and behaviours towards the ad and product when a CSR component is included in the ad? Are the correlations between the variables affected by a CSR claim?

In order to address the second research question, several T-tests were executed comparing each experimental group with the control group, in order to analyze any possible difference in the variables’ scores. All the performed tests were non significant ($p>0,05$) except when comparing CG with EGIII for the variable attitude towards the product. ($p=0,032<0,05$). Results suggest that the inclusion of two CSR claims decreases the attitude towards the product. The mean scores obtained for this variable and the two items that compose it are highlighted in Table 4 below.

Table 4 – Mean scores for CG and EGIII for Attitude towards the product

	Attitude towards the product	‘Tastes bad - Tastes good’	‘Boring - Fun’
Control Group	4,09	4,31	3,94
Experimental Group III	3,7	3,81	3,5

This way, the group of children faced with the advertisement containing the two CSR claims believes that the juice will taste worse and is less fun than children in the control group. Therefore, our results suggest that CSR claims in advertising influence

negatively children's attitude towards the product, but only when its presence is noticed by children, i.e. when more than one claim is present in the advertisement. However, as we will later explain, this finding is only observed in the case of females.

This is in line with the synergy model presented by Del Vecchio (2002), since our results showed that the introduction of one CSR claim in the ad did not influence children's perception about the product and its emotional benefit. On the other hand, when one additional claim is added, it becomes perceived by children who then integrate it in their attitude towards the product. These messages seem to weaken children's perception of the product.

Furthermore, in order to assess the impact of local fruit claim on taste perception, a T-test was computed comparing CG with EGI for attitude towards the product (and the two items separately) and perceived healthiness but no significant differences were found.³ Therefore, introducing a CSR claim related with the fact that local fruit was used in the production of the juice seems to not have an effect in taste perception of children and perceived healthiness.

In order to analyze the impact of CSR claims in children's preferences, we computed the analysis regarding the question related to ranking a certain number of elements according to its importance for the choice of the product. By analyzing SPSS charts showing the distribution of the seven items that compose this question, it was found that the scores attributed to the four elements common to all sub-samples (taste, package, vitamins and advertisement itself) are similar across groups. This way, children's attribution of importance is consistent across groups. In fact, the items 'taste' and 'vitamins' were preferred by children in the four groups, receiving the majority of the

³ 'Attitude towards the product': p= 0,169; 'Tastes bad – tastes good': p= 0,321; 'Product boring – fun': p= 0,251; 'Perceived healthiness': p=0,407

number 1 and 2 attributions (**Figures 1 and 2 below**). This finding is in line with the study conducted by Edwards and Hartwell (2002), who concluded that children in the same age range have ‘an appreciation of the term healthy eating and could relate this to what they should be consuming’. This way, children considered that the taste of the juice and its healthiness are the most important factors in the decision of buying or drinking the juice, despite the fact that a CSR claim was present or not in the ad.

On the other hand, by comparing each item’s mean score across groups, we found that the items ‘package’ and ‘advertisement’ were consistently in the bottom of children’s attribution of importance.

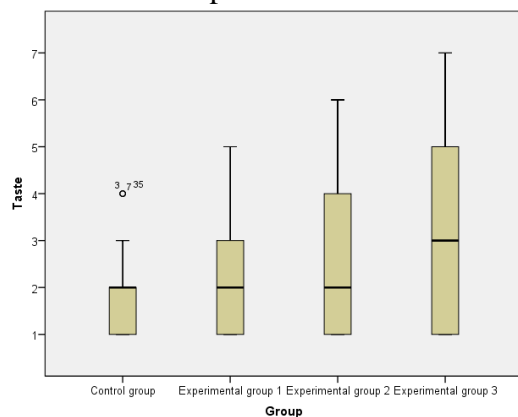


Figure 1 - Distribution of importance given to item ‘Taste’, by group

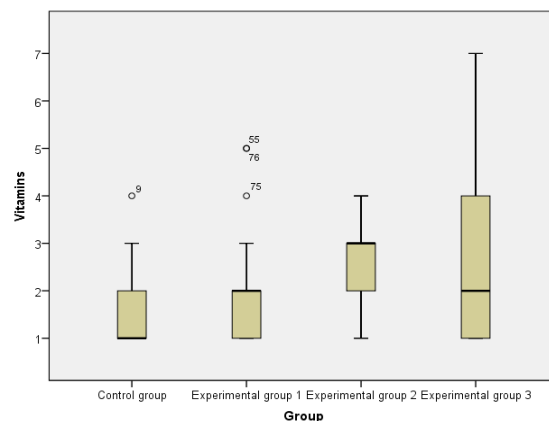


Figure 2 - Distribution of importance given to item ‘Vitamins’, by group

Next, the same correlations analyzed in RQ1 were performed, taking into account the type of advertisement seen, in order to see if any significant differences would arise. The results showed a greater correlation between attitude towards the ad and the product for EGII ($R=0,783$; $p=0,000$), and the lowest value for EGIII ($R=0,605$; $p=0,000$). Also, package evaluation and attitude towards the ad are highly correlated in the last group ($R=0,764$; $p=0,000$) whereas control group shows the lowest value ($R=0,508$; $p=0,000$). Moreover, children in EGIII show the highest correlation in terms of attitude towards the product and consumption intention ($R=0,730$; $p=0,000$). As we saw in RQ1,

the introduction of a CSR claim reduced the attitude towards the product, and therefore, if the correlation is higher, this means that it also has a bigger impact on consumption intention. On average, CG and EGI show lower correlations between the items, in comparison with experimental groups II and III. It is also visible that the type of claim introduced in experimental groups II and III (the CRM claim) uses a big part of the advertisement space, and we wonder if the ad clutter may have contributed to making these children more sensible.

RQ3: Is gender a differentiator aspect in children's reaction to advertising?

In order to assess any differences related to gender, the same correlations previously explained were computed to each group, males and females. It was found that females show, on average, higher correlations between the variables, the higher differences being in the relationships between attitude towards the ad and the product ($R_F=0,739$, $p=0,000$ vs. $R_M=0,539$, $p=0,000$) and between perceived healthiness and attitude towards the product ($R_F=0,509$, $p=0,000$ vs. $R_M=0,286$, $p=0,000$). Therefore, we can conclude that girls show a stronger relationship between the attitude held towards the ad seen and the evaluation of the product advertised. Also, perceived healthiness of the product has a greater impact on the attitude towards the product in the case of females.

Several T-tests were also performed with the entire sample, using gender as a factor, to analyze any possible differences in the variables studied. We found a significant difference in terms of previous participation of children ($p=0,003$), females showing higher previous involvement in social responsible activities ($\bar{x}_F=4,31$; $\bar{x}_M=4,03$). Analyzing the five items composing this variable, significant differences were found in recycling behaviour (Q10.1- $p=0,023$; Q10.2- $p=0,006$) and giving clothes and toys (Q10.5- $p=0,000$), females showing higher scores in the three items. The other variables

did not show significant differences by gender. Moreover, splitting the sample by gender, T-tests and Mann-Whitney tests⁴ were performed comparing CG with each EG, in order to further analyze the results found in RQ2. We found a significant difference between females in CG and EGIII in terms of attitude towards the product (T-test $p=0,020$), being the mean scores equal to 4,27 and 3,67, respectively. Females in the CG think the product will taste better ($\bar{x}=4,55$) than those part of EGIII ($\bar{x}=3,96$) and that it is funnier ($\bar{x}_{CG}= 3,85$; $\bar{x}_{EGIII}= 3,37$). On the other hand, these differences were not observed in males. Therefore, introducing two CSR claims in the ad will have a negative impact in girls' evaluation of the product but no impact should occur in the case of boys. This finding has important implications for the execution of advertising campaigns targeted at girls.

To test any gender differences in attitude towards the product and perceived healthiness in the presence of a local label, a Mann-Whitney test was computed for CG and EGI. No significant differences were found between females of CG and EGI and the same was verified for males. This way, neither girls nor boys seem to perceive the juice as tastier or healthier if it is produced with locally sourced oranges.

Finally, to further explore the result found in RQ2, Spearman's Rho tests by gender were conducted for EGIII, between attitude towards the product and the other variables. Higher correlations were found in the case of females when compared with males in that group.⁵ This way, girls faced with two CSR claims will show a higher correlation between the attitude towards the product and the other variables than boys. Therefore,

⁴ The test conducted was dependent on the result of Shapiro-Wilk Test for males/females in each group.

⁵ Correlation with purchase intention: $\text{Rho}_F = 0,696$, $p=0,000$; Males not significant $p=0,136$.
Correlation with attitude towards the ad: $\text{Rho}_F = 0,669$, $p=0,000$; Males not significant $p=0,062$.

the negative effect of two CSR claims in attitude towards the product will highly influence girls' purchase intention of the product.

RQ4: Are children actually concerned about the environment and engage in socially responsible behaviours? Do those factors have an influence on their attitudes and behaviours towards the ad and product when faced with an environment CSR claim?

In order to understand the level of environmental concern and previous socially responsible behaviour of the children participating in the study, an analysis of frequencies was conducted. Results showed that children have a high level of environmental concern, since the variable mean is equal to 4,79 (on a scale 1 to 5). Moreover, the variable 'previous participation' shows similar results, being the mean equal to 4,2. However, it is important to mention that the last variable showed different results for the items that compose it. The items 'previous volunteer experience' and 'community project participation' ($\bar{x}=3,45$; $\bar{x}=3,79$ respectively) scored lower than the remaining three items of the scale. Overall, we confirmed children's high level of environmental concern and engagement in social responsible behaviours like recycling since early age.

We then analyzed the impact of the individual factors on the six variables studied for children faced with an environmental claim (EGII and III separately). We first computed the correlations between those variables. Results showed significant correlations for EGII in the relationship between previous participation and: attitude towards the product ($R=0,397$, $p=0,009$); package evaluation ($R=0,465$, $p=0,002$).

Due to the concentration of the individual variables' answers on the two higher points (4 and 5), our analysis was limited to the respondents that attributed those scores. This way, a Kruskal-Wallis analysis was computed by gender for each group in order to test

the distributions of the individual items in relation to the other variables. We found significant differences for EGII in the following cases: males' concern for environment (Q9.1) and their attitude towards the ad ($p=0,049$); females' recycling behaviour (Q10.1) and consumption intention ($p=0,047$); attitude towards the product ($p=0,042$); package evaluation ($p=0,036$). An analysis of the Mean Rank values for those cases suggested that children who answered 5 in the individual variables tend to give a more positive evaluation to the other measures. The Chi-square tests performed for those scores were significant for the majority of the items⁶ and this tendency was confirmed by computing Crosstabs and analyzing the structure of these relationships. EGIII showed no significant differences by performing the initial test. This way, girls with a high level of recycling behaviour tend to evaluate the product and package more positively and show a higher probability of consuming it than girls with a lower level. Moreover, boys who show high level of environmental concern (who answered 'of great concern to me') seem to have a more positive attitude towards the ad than the ones who scored 4. These findings are expected to occur in the presence of one CSR claim only. However, these results were found in a small number of the items analyzed and no conclusions could be drawn regarding children with low levels of environmental concern and previous participation.

Discussion and Implications

This study addressed two intended effects of advertising on children: liking of the ad and the product (affective effects) and purchasing or requesting for the advertised brand (behavioural effects) (Rozendaal et al., 2011). The importance of the advertisement

⁶ Significant Chi-square tests (Exact Chi-square values):

1 – Males: 'Ad stupid – great' (0,036)

2 – Females: 'Consumption intention' (0,016) ; 'Package quality' (0,017); 'Product Taste' (0,002); 'Product boring-fun' (0,005)

elements and appeal to influence children's attitude towards the product was confirmed, which will in turn have an impact on the likelihood that they will purchase or request it. Furthermore, if girls are the target, the execution of the advertisement gains more importance when compared with boys since stronger relationships exist between females' attitude towards the ad and the product. Managers should pay special attention to this target since girls' viewing of advertising will have a higher correlation with the probability of requesting it, when comparing with boys.

On the other hand, the taste and healthiness of a product should be highlighted in companies' communication strategy, since these elements are highly valued by children and will attract their attention to the advertisement and product itself, thus increasing the likelihood of purchasing or requesting it.

Concerning companies' CSR strategy, it is important to mention the high level of environmental concern of children from 10 to 12 years and girls' higher engagement in recycling activities and charity giving, when compared with boys. This represents an opportunity for companies to promote this type of behaviours next to children from the concrete operational stage. Managers should include it in their strategic planning, since it is a subject that resonates with children, more so if the target is girls.

However, when two CSR claims are introduced in an advertisement of a non familiar brand, a negative effect will occur in girls' attitude towards the product. This way, when targeting girls with an advertising of a product belonging to a brand with no established reputation, the introduction of two CSR claims can be prejudicial to consumers' attitude towards the product. On the other hand, managers should expect no significant differences in boys' attitudes and behaviours when this group is faced with advertising containing two CSR claims. Moreover, the introduction of one CSR claim, either

environmentally or socially related, will not have a significant impact in children's attitudes and behaviours. More precisely, if managers' goal is to increase children's taste expectation and the product perceived healthiness, the introduction of a local sourcing claim should not be suggested since no significant difference will occur. We can then conclude that, when faced with an advertisement with a subtle CSR claim, i.e. one claim only, children do not seem to include this message as part of the product's features or its emotional benefit. This way, if managers want to increase children's liking of a product and their intent to purchase it, the introduction of CSR claims in the ad is not recommended.

Limitations and Further Research

Some limitations were identified regarding this study, which should be tackled in further research about this topic in order to obtain more complete results. On one hand, the fact that no differences were found between groups might have been caused by the non familiarity with the brand, which could lead to distrust in the CSR claims presented. This way, further research should compare the results between a non-familiar and a familiar brand. On the other hand, due to the overall high level of environmental concern and previous participation across the entire sample, we were not able to analyze possible relationships between the individual factors introduced and the variables analyzed. This way, further research could consider a pre-division of children between the four groups, by balancing in each group low and high levels of these individual variables in order to conduct a more precise analysis and identify possible relationships. A third limitation identified is related to the different proportion of males and females in the sample which might have influenced the results found in the relationships between the variables and among groups. Thus, a more balanced sample should be gathered.

Furthermore, the sample was composed exclusively by children from private schools, thus it would be interesting to conduct a research on a public school since a different result might be obtained, related with the social environment children are exposed to. Finally, further research should include older children, with more developed cognitive skills, since differences could arise with the introduction of CSR claims in advertising.

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Appendixes

Appendix A – Presentation of the four different advertisements showed to children.

Control Group



This advertisement contains the base message, present in the other three, based on real juice ads. Messages: New/Vitamins rich/Refreshing flavour.

Experimental Group I



The message of this advertisement is added to the base advertisement and refers to the social component of a CSR strategy: local sourcing. Message: Orange from Algarve.

Experimental Group II



The message of this advertisement is added to the base advertisement and refers to the environmental claim of the brand. It is composed by a general statement (Su Fresh protects the environment) and a CRM component (For every 1000 juices sold, Su Fresh will plant a tree in Serra da Estrela).

Experimental Group III



This advertisement combines the messages present in the previous three.

Appendix B – Questionnaire of experimental group III. Children filled it in while looking at the advertisement.

V4



Carolina Perestrelo de Lemos
Aluna de Gestão na NOVA School of Business and Economics

Olá!

Estou a fazer um estudo para a minha tese de Mestrado e gostaria de te fazer algumas questões relacionadas com o anúncio que está dentro da mica que te distribui. Os dados que estou a recolher são confidenciais e por isso o teu nome não aparecerá em lado nenhum. Lembra-te que não há respostas certas nem erradas, apenas quero saber a tua opinião!

Obrigada pela ajuda! 😊

Sou: Rapaz Ando no ____º ano Idade: _____
Rapariga

Depois de veres com atenção o **anúncio do novo sumo de laranja Su Fresh**, responde às seguintes perguntas:

Questionário

Toma atenção ao anúncio. Quais são os elementos que encontras na imagem? (põe um **X** nas opções que encontras)

Cores alegres
Pacote de sumo
Frases escritas
Nome de uma marca

1. Conheces a marca **Su Fresh**? (Circunda a tua resposta)

Sim	Não
-----	-----

2. Gostavas de comprar **este sumo**, ou pedir aos teus pais para comprar? (Circunda a tua resposta)

Não gostava nada	Gostava pouco	Gostava mais ou menos	Gostava	Gostava muito

3. Gostavas de beber **este sumo**? (Circunda a tua resposta)

Não gostava nada	Gostava pouco	Gostava mais ou menos	Gostava	Gostava muito

Vira a página por favor



1

4. Achas que a embalagem? (Circunda a resposta para cada alínea)

4.1	É feia							É bonita
4.2	Não transmite qualidade							Transmite qualidade

5. O que achas deste sumo? (Circunda a resposta para cada alínea)

5.1	Sabe mal	Sabe mais ou menos mal	Não sabe bem nem mal	Sabe mais ou menos bem	Sabe bem	
5.2	É aborrecido	É um pouco aborrecido	Não é aborrecido nem divertido	É um bocado divertido	É divertido	
5.3	Não é nada saudável	Não é muito saudável	É mais ou menos saudável	É um bocado saudável	É muito saudável	

6. Conheces o tipo de bebida dentro da embalagem? (Circunda a tua resposta)

Não conheço	Acho que não conheço	Conheço mais ou menos	Conheço	Conheço bem	

7. O que achas do anúncio que viste? (Circunda a resposta para cada alínea)

7.1	Não gosto nada							Gosto muito
7.2	É aborrecido							É entusiasmante
7.3	É absurdo							É fantástico
7.4	Não tem graça							É divertido

The four questionnaires are similar, differing in question number 8. In this case, children had to consider the relative importance of seven aspects.

8. Há várias razões que te podem fazer escolher este sumo. Classifica os aspetos aqui escritos dando o **número 1 ao mais importante, 2 ao segundo mais importante, ..., até ao 7 que é o menos importante.**

Sabor	
Embalagem	
Anúncio	
Vitaminas	
O uso de fruta portuguesa	
Proteção do ambiente	
Plantação de árvores	

9. Os problemas da **destruição da natureza, poluição e animais em vias de extinção...**
(Circunda a resposta para cada alínea)

9.1	Não me preocupam							Preocupam-me
9.2	Não são importantes							São importantes
9.3	Não me importam							Importam-me

10. Por favor indica se concordas ou não com cada uma das seguintes expressões, assinalando com **X** a tua opinião para cada frase.

	Discordo totalmente	Discordo	Não concordo nem discordo	Concordo	Concordo totalmente
10.1 Faço um esforço por reciclar o máximo de coisas possível (embalagens, garrafas, plástico, papel).					
10.2 A minha família costuma reciclar.					
10.3 Fiz voluntariado nos últimos 3 anos.					
10.4 Participei num trabalho da minha comunidade (escola, bairro) nos últimos 3 anos.					
10.5 Costumo dar as minhas roupas/ brinquedos / livros a crianças que precisam.					

Obrigada pela ajuda 😊

A Work Project, presented as part of the requirements for the Award of a Masters
Degree in Management from the NOVA – School of Business and Economics

How CSR claims in advertising affect children's preferences and purchase
intentions

Appendices Booklet

Carolina Perestrelo de Lemos #1147

A Project carried out on the Field Lab in Children Consumer Behaviour, under the
supervision of Professor Luísa Agante

January 2014

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Appendix I

Table 1.1 Correlations between variables

		Correlations					
		Purchase intention	Consumption intention	Package evaluation	Attitude towards product	Perceived healthiness	Attitude towards ad
Purchase intention	Pearson Correlation	1	,842	,433	,569	,373	,414
	Sig. (2-tailed)		,000	,000	,000	,000	,000
	N	193	192	185	176	179	178
Consumption intention	Pearson Correlation		1	,409	,556	,343	,380
	Sig. (2-tailed)			,000	,000	,000	,000
	N		192	184	175	178	177
Package evaluation	Pearson Correlation			1	,649	,371	,631
	Sig. (2-tailed)				,000	,000	,000
	N			185	172	173	177
Attitude towards product	Pearson Correlation				1	,430	,663
	Sig. (2-tailed)					,000	,000
	N				176	169	168
Perceived healthiness	Pearson Correlation					1	,427
	Sig. (2-tailed)						,000
	N					179	168
Attitude towards ad	Pearson Correlation						1
	N						178

Appendix II

Table 2.1 Descriptive analysis per group

		Descriptives							
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Purchase intention	Control group	49	3,51	,982	,140	3,23	3,79	1	5
	Experimental group 1	48	3,44	,965	,139	3,16	3,72	1	5
	Experimental group 2	48	3,58	1,088	,157	3,27	3,90	1	5
	Experimental group 3	48	3,65	,934	,135	3,37	3,92	1	5
	Total	193	3,54	,989	,071	3,40	3,68	1	5
Consumption intention	Control group	49	3,61	1,017	,145	3,32	3,90	1	5
	Experimental group 1	48	3,65	,978	,141	3,36	3,93	1	5
	Experimental group 2	47	3,62	1,114	,163	3,29	3,94	1	5
	Experimental group 3	48	3,75	,957	,138	3,47	4,03	1	5
	Total	192	3,66	1,011	,073	3,51	3,80	1	5
Perceived healthiness	Control group	45	4,40	,837	,125	4,15	4,65	2	5
	Experimental group 1	45	4,24	,933	,139	3,96	4,52	2	5
	Experimental group 2	44	4,34	,963	,145	4,05	4,63	1	5
	Experimental group 3	45	4,47	,842	,126	4,21	4,72	2	5
	Total	179	4,36	,891	,067	4,23	4,49	1	5
Attitude towards product	Control group	44	4,0909	,73352	,11058	3,8679	4,3139	2,00	5,00
	Experimental group 1	42	3,8571	,82850	,12784	3,5990	4,1153	1,50	5,00
	Experimental group 2	45	3,9667	,91329	,13614	3,6923	4,2410	1,50	5,00
	Experimental group 3	45	3,7111	,90132	,13436	3,4403	3,9819	1,00	5,00
	Total	176	3,9063	,85257	,06426	3,7794	4,0331	1,00	5,00
Package evaluation	Control group	48	4,0938	,71946	,10384	3,8848	4,3027	2,50	5,00
	Experimental group 1	45	4,0889	,77817	,11600	3,8551	4,3227	2,50	5,00
	Experimental group 2	44	4,0114	,78124	,11778	3,7738	4,2489	2,00	5,00
	Experimental group 3	48	4,0104	,82184	,11862	3,7718	4,2491	2,00	5,00
	Total	185	4,0514	,77059	,05666	3,9396	4,1631	2,00	5,00
Attitude towards ad	Control group	46	3,809783	,7926481	,1168696	3,574395	4,045170	1,2500	5,0000
	Experimental group 1	44	3,778409	,7798627	,1175687	3,541309	4,015509	1,7500	5,0000
	Experimental group 2	42	3,851190	,7409197	,1143264	3,620304	4,082077	2,0000	5,0000
	Experimental group 3	46	3,690217	,7891359	,1163517	3,455873	3,924562	1,7500	5,0000
	Total	178	3,780899	,7723325	,0578888	3,666658	3,895140	1,2500	5,0000

Table 2.2 T-test Control Group and Experimental Group 1

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Purchase intention	Equal variances assumed	,032	,858	,368	95	,714	,073	,198	-,320	,465
	Equal variances not assumed			,368	94,998	,714	,073	,198	-,320	,465
Consumption intention	Equal variances assumed	,284	,596	-,166	95	,869	-,034	,203	-,436	,369
	Equal variances not assumed			-,166	94,970	,869	-,034	,203	-,436	,369
Perceived healthiness	Equal variances assumed	,286	,594	,833	88	,407	,156	,187	-,216	,527
	Equal variances not assumed			,833	86,973	,407	,156	,187	-,216	,527
Attitude towards product	Equal variances assumed	,107	,744	1,387	84	,169	,23377	,16855	-,10141	,56895
	Equal variances not assumed			1,383	81,698	,170	,23377	,16903	-,10251	,57004
Package evaluation	Equal variances assumed	,332	,566	,031	91	,975	,00486	,15530	-,30362	,31334
	Equal variances not assumed			,031	89,169	,975	,00486	,15569	-,30449	,31421
Attitude towards ad	Equal variances assumed	,254	,616	,189	88	,850	,0313735	,1658342	-,298187	,3609342
	Equal variances not assumed			,189	87,928	,850	,0313735	,1657737	-,298071	,3608176

Table 2.3 T-test Control Group and Experimental Group 2

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Purchase intention	Equal variances assumed	,242	,624	-,348	95	,729	-,073	,210	-,491	,344
	Equal variances not assumed			-,347	93,571	,729	-,073	,211	-,491	,345
Consumption intention	Equal variances assumed	,176	,675	-,022	94	,983	-,005	,218	-,437	,427
	Equal variances not assumed			-,022	92,364	,983	-,005	,218	-,438	,428
Perceived healthiness	Equal variances assumed	,072	,790	,309	87	,758	,059	,191	-,321	,439
	Equal variances not assumed			,309	84,766	,758	,059	,191	-,321	,440
Attitude towards product	Equal variances assumed	,405	,526	,707	87	,482	,12424	,17583	-,22523	,47372
	Equal variances not assumed			,708	83,859	,481	,12424	,17540	-,22456	,47305
Package evaluation	Equal variances assumed	,260	,612	,527	90	,600	,08239	,15645	-,22843	,39321
	Equal variances not assumed			,525	87,477	,601	,08239	,15702	-,22968	,39445
Attitude towards ad	Equal variances assumed	,217	,642	-,252	86	,801	-,0414079	,1639975	-,3674241	,2846084
	Equal variances not assumed			-,253	85,948	,801	-,0414079	,1634901	-,3664183	,2836026

Table 2.4 T-test Control Group and Experimental Group 3

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Purchase intention	Equal variances assumed	,187	,666	-,697	95	,488	-,136	,195	-,522	,251
	Equal variances not assumed			-,697	94,920	,487	-,136	,194	-,522	,250
Consumption intention	Equal variances assumed	,897	,346	-,687	95	,494	-,138	,201	-,536	,260
	Equal variances not assumed			-,687	94,846	,494	-,138	,200	-,536	,260
Perceived healthiness	Equal variances assumed	,121	,729	-,377	88	,707	-,067	,177	-,418	,285
	Equal variances not assumed			-,377	87,996	,707	-,067	,177	-,418	,285
Attitude towards product	Equal variances assumed	,680	,412	2,178	87	,032	,37980	,17442	,03312	,72647
	Equal variances not assumed			2,183	84,244	,032	,37980	,17402	,03376	,72583
Package evaluation	Equal variances assumed	1,209	,274	,529	94	,598	,08333	,15765	-,22969	,39636
	Equal variances not assumed			,529	92,384	,598	,08333	,15765	-,22977	,39643
Attitude towards ad	Equal variances assumed	,047	,830	,725	90	,470	,1195652	,1649128	-,2080628	,4471933
	Equal variances not assumed			,725	89,998	,470	,1195652	,1649128	-,2080629	,4471934

Table 2.5 Descriptive analysis Control Group and Experimental Group 1

Group Statistics

	Advertisement shown	N	Mean	Std. Deviation	Std. Error Mean
Product_Tastes bad-tastes good	Control group	45	4,31	,793	,118
	Experimental group 1	43	4,12	1,028	,157
Product_Boring-fun	Control group	48	3,81	,960	,139
	Experimental group 1	44	3,59	,871	,131
Perceived healthiness	Control group	45	4,40	,837	,125
	Experimental group 1	45	4,24	,933	,139
Attitude towards product	Control group	44	4,0909	,73352	,11058
	Experimental group 1	42	3,8571	,82850	,12784

Table 2.6 T-test Control Group and Experimental Group 1 for analysis of claim of local production

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Product_Tastes bad-tastes good	Equal variances assumed	,858	,357	,998	86	,321	,195	,195	-,193	,583
	Equal variances not assumed			,992	78,937	,324	,195	,196	-,196	,586
Product_Boring-fun	Equal variances assumed	1,064	,305	1,156	90	,251	,222	,192	-,159	,602
	Equal variances not assumed			1,161	89,993	,249	,222	,191	-,158	,601
Perceived healthiness	Equal variances assumed	,286	,594	,833	88	,407	,156	,187	-,216	,527
	Equal variances not assumed			,833	86,973	,407	,156	,187	-,216	,527
Attitude towards product	Equal variances assumed	,107	,744	1,387	84	,169	,23377	,16855	-,10141	,56895
	Equal variances not assumed			1,383	81,698	,170	,23377	,16903	-,10251	,57004

Table 2.7 Control Group: Correlations between variables

Correlations

		Purchase intention	Consumption intention	Package evaluation	Attitude towards product	Perceived healthiness	Attitude towards ad
Purchase intention	Pearson Correlation	1	,849	,366	,579	,380	,331
	Sig. (2-tailed)		,000	,010	,000	,010	,025
	N	49	49	48	44	45	46
Consumption intention	Pearson Correlation		1	,325	,528	,408	,227
	Sig. (2-tailed)			,024	,000	,005	,130
	N		49	48	44	45	46
Package evaluation	Pearson Correlation			1	,657	,237	,508
	Sig. (2-tailed)				,000	,118	,000
	N			48	44	45	46
Attitude towards product	Pearson Correlation				1	,468	,646
	Sig. (2-tailed)					,002	,000
	N				44	42	43
Perceived healthiness	Pearson Correlation					1	,279
	Sig. (2-tailed)						,070
	N					45	43
Attitude towards ad	Pearson Correlation						1
	N						46

Table 2.8 Experimental Group 1: Correlations between variables

Correlations

		Purchase intention	Consumption intention	Package evaluation	Attitude towards product	Perceived healthiness	Attitude towards ad
Purchase intention	Pearson Correlation	1	,821	,502	,529	,368	,372
	Sig. (2-tailed)		,000	,000	,000	,013	,013
	N	48	48	45	42	45	44
Consumption intention	Pearson Correlation		1	,548	,609	,294	,414
	Sig. (2-tailed)			,000	,000	,050	,005
	N		48	45	42	45	44
Package evaluation	Pearson Correlation			1	,678	,443	,613
	Sig. (2-tailed)				,000	,003	,000
	N			45	41	43	44
Attitude towards product	Pearson Correlation				1	,342	,634
	Sig. (2-tailed)					,029	,000
	N				42	41	41
Perceived healthiness	Pearson Correlation					1	,473
	Sig. (2-tailed)						,002
	N					45	42
Attitude towards ad	Pearson Correlation						1
	N						44

Table 2.9 Experimental Group 2: Correlations between variables

Correlations

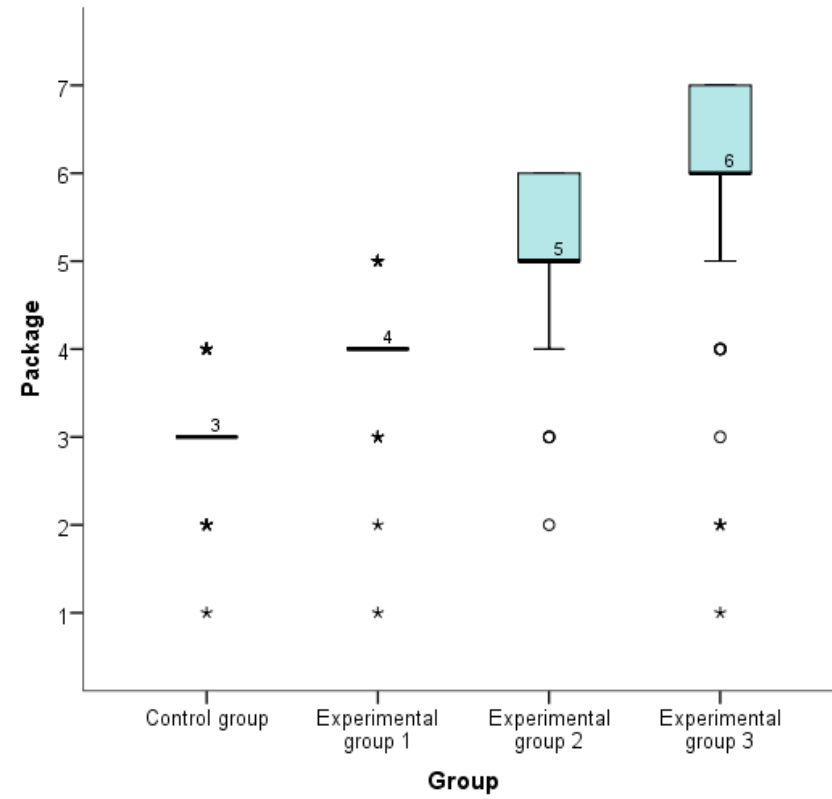
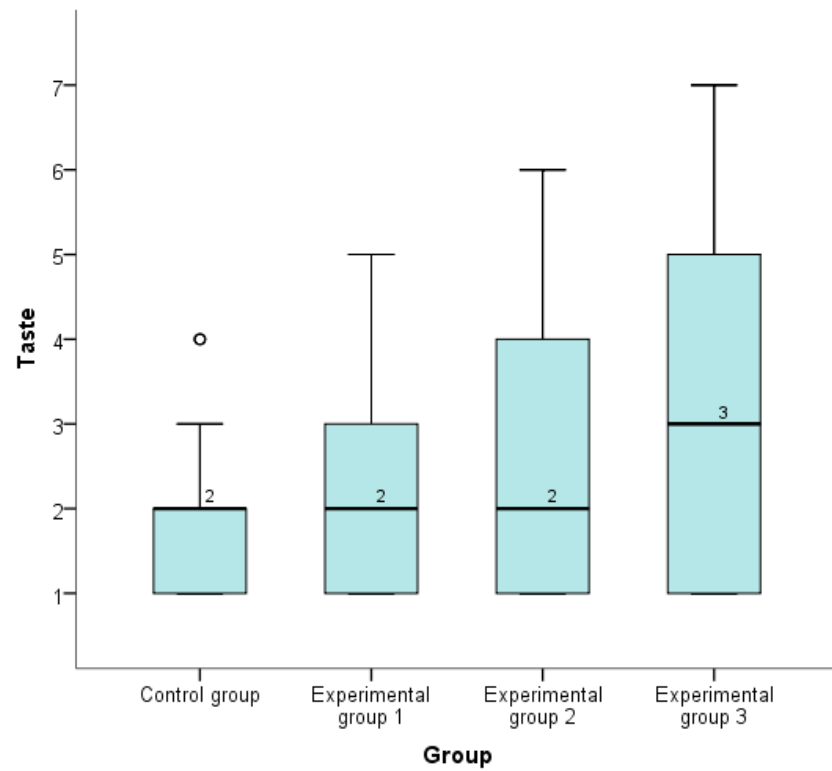
		Purchase intention	Consumption intention	Package evaluation	Attitude towards product	Perceived healthiness	Attitude towards ad
Purchase intention	Pearson Correlation	1	,867	,388	,556	,553	,493
	Sig. (2-tailed)		,000	,009	,000	,000	,001
	N	48	47	44	45	44	42
Consumption intention	Pearson Correlation		1	,301	,421	,460	,351
	Sig. (2-tailed)			,050	,004	,002	,024
	N		47	43	44	43	41
Package evaluation	Pearson Correlation			1	,696	,447	,634
	Sig. (2-tailed)				,000	,004	,000
	N			44	42	40	41
Attitude towards product	Pearson Correlation				1	,593	,783
	Sig. (2-tailed)					,000	,000
	N				45	42	40
Perceived healthiness	Pearson Correlation					1	,617
	Sig. (2-tailed)						,000
	N					44	39
Attitude towards ad	Pearson Correlation						1
	N						42

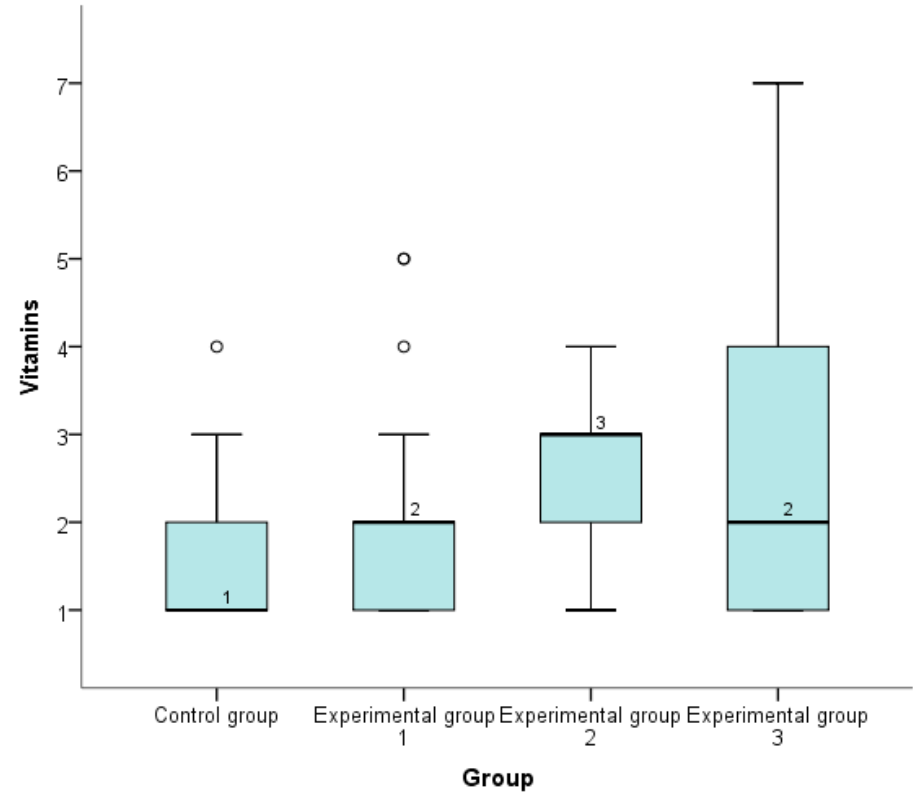
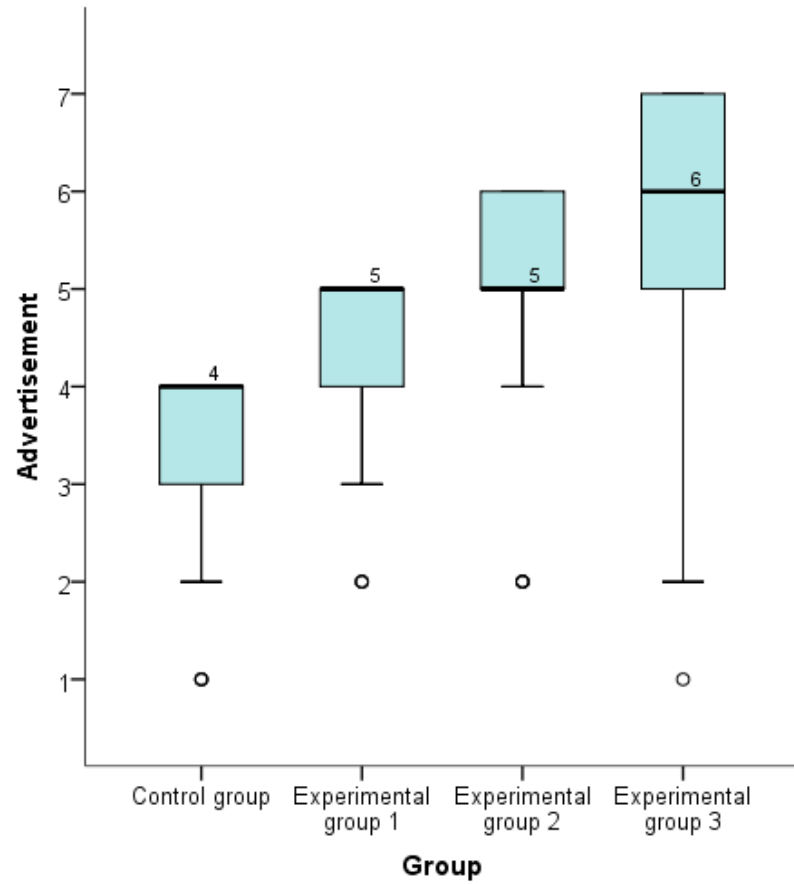
Table 2.10 Experimental Group 3: Correlations between variables

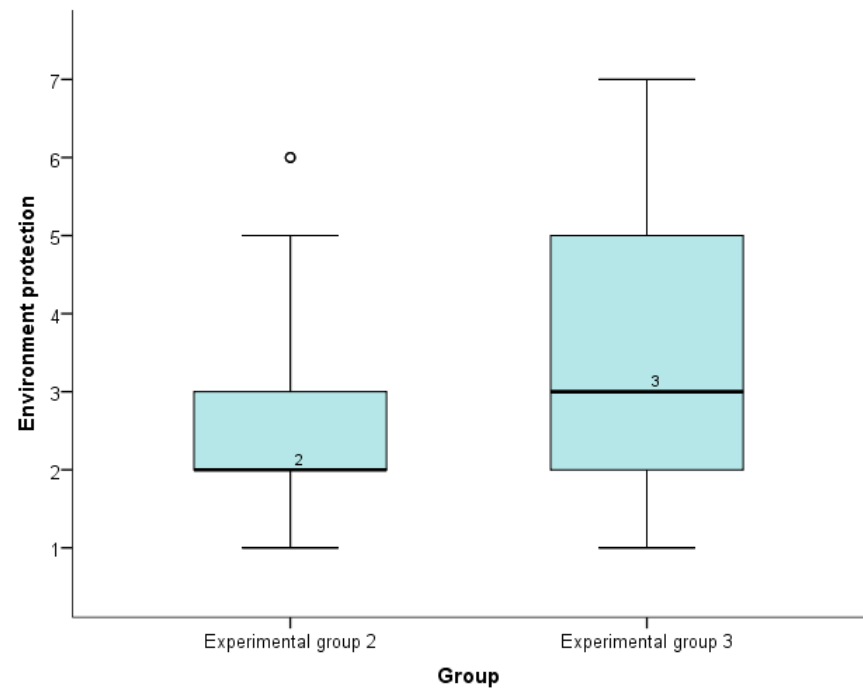
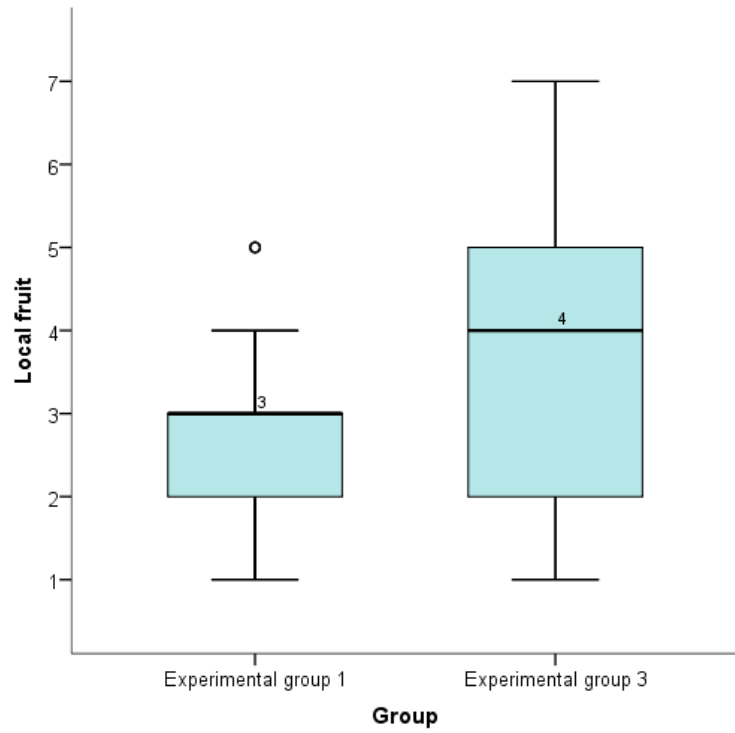
Correlations

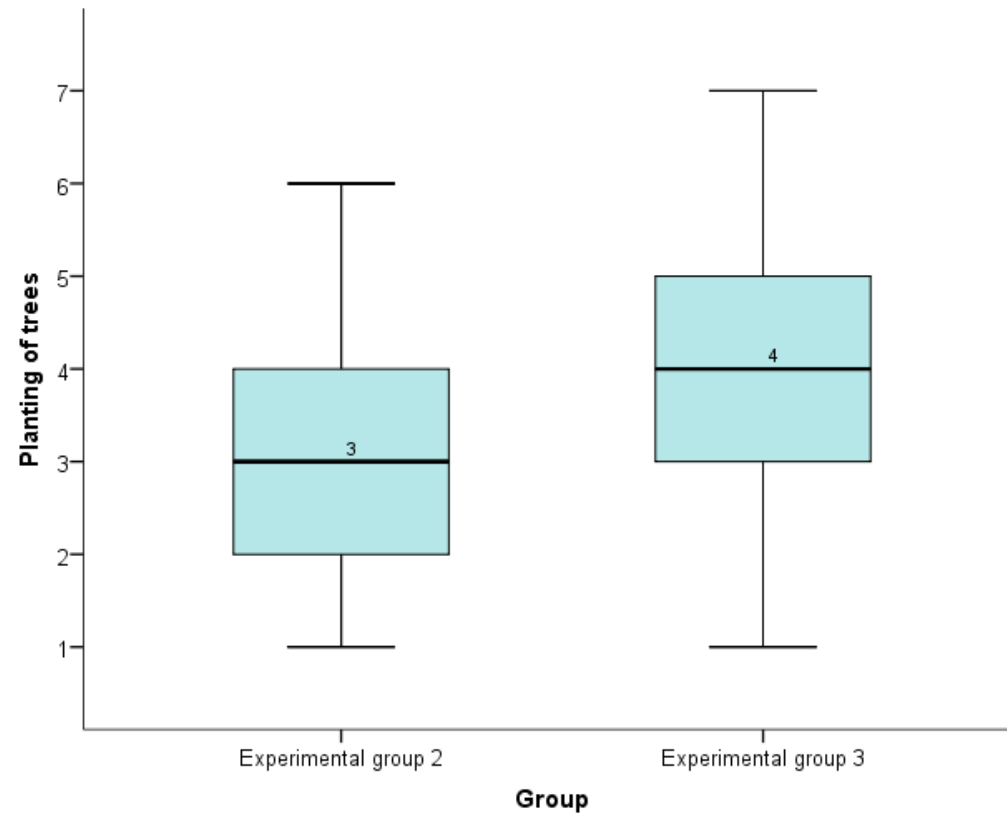
		Purchase intention	Consumption intention	Package evaluation	Attitude towards product	Perceived healthiness	Attitude towards ad
Purchase intention	Pearson Correlation	1	,828	,504	,662	,129	,484
	Sig. (2-tailed)		,000	,000	,000	,398	,001
	N	48	48	48	45	45	46
Consumption intention	Pearson Correlation		1	,491	,730	,196	,558
	Sig. (2-tailed)			,000	,000	,196	,000
	N		48	48	45	45	46
Package evaluation	Pearson Correlation			1	,584	,362	,764
	Sig. (2-tailed)				,000	,015	,000
	N			48	45	45	46
Attitude towards product	Pearson Correlation				1	,314	,605
	Sig. (2-tailed)					,038	,000
	N				45	44	44
Perceived healthiness	Pearson Correlation					1	,372
	Sig. (2-tailed)						,013
	N					45	44
Attitude towards ad	Pearson Correlation						1
	N						46

Figure 2.1 Analysis of Q8 - Distribution of answers to each item per group









Appendix III

Table 3.1 Correlations between variables for females

Correlations^a

FEMALE		Purchase intention	Consumption intention	Perceived healthiness	Attitude towards product	Package evaluation	Attitude towards ad
Purchase intention	Pearson Correlation	1	,843	,447	,562	,399	,480
	Sig. (2-tailed)		,000	,000	,000	,000	,000
	N	117	116	110	105	112	108
Consumption intention	Pearson Correlation		1	,397	,571	,365	,434
	Sig. (2-tailed)			,000	,000	,000	,000
	N		116	109	104	111	107
Perceived healthiness	Pearson Correlation			1	,509	,426	,465
	Sig. (2-tailed)				,000	,000	,000
	N			110	103	106	102
Attitude towards product	Pearson Correlation				1	,640	,739
	Sig. (2-tailed)					,000	,000
	N				105	102	99
Package evaluation	Pearson Correlation					1	,655
	Sig. (2-tailed)						,000
	N					112	107
Attitude towards ad	Pearson Correlation						1
	N						108

a. Gender = Female

Table 3.2 Descriptive analysis by gender

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Purchase intention	Male	76	3,45	,958	,110
	Female	117	3,61	1,008	,093
Consumption intention	Male	76	3,58	,970	,111
	Female	116	3,71	1,039	,096
Perceived healthiness	Male	69	4,48	,779	,094
	Female	110	4,29	,952	,091
Attitude towards product	Male	71	3,8239	,77043	,09143
	Female	105	3,9619	,90324	,08815
Package evaluation	Male	73	3,9795	,73805	,08638
	Female	112	4,0982	,79082	,07473
Attitude towards ad	Male	70	3,742857	,7813165	,0933852
	Female	108	3,805556	,7690975	,0740064
Environmental concern	Male	68	4,715686	,5441219	,0659845
	Female	106	4,839623	,3936833	,0382379
Previous participation	Male	73	4,030137	,6812335	,0797324
	Female	112	4,316071	,5867230	,0554401

Group Statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
I make an effort to recycle everything I can (packages, glass, plastic, paper)	Male	74	4,50	,687	,080
	Female	114	4,71	,475	,044
My family usually recycles.	Male	73	4,33	,898	,105
	Female	114	4,66	,546	,051
I did volunteer work in the past 3 years.	Male	74	3,23	1,439	,167
	Female	112	3,59	1,284	,121
I worked in a community project (school, neighborhood) in the past 3 years.	Male	74	3,74	1,314	,153
	Female	113	3,82	1,189	,112
I usually donate my clothes/toys/books to children who need.	Male	73	4,32	,814	,095
	Female	113	4,81	,473	,045

Table 3.3 T-tests, groups formed by gender

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Purchase intention	Equal variances assumed	,017	,895	-1,095	191	,275	-,159	,146	-,447	,128
	Equal variances not assumed			-1,107	166,174	,270	-,159	,144	-,444	,125
Consumption intention	Equal variances assumed	,152	,697	-,857	190	,393	-,128	,149	-,423	,167
	Equal variances not assumed			-,869	168,147	,386	-,128	,147	-,419	,163
Perceived healthiness	Equal variances assumed	3,259	,073	1,372	177	,172	,187	,137	-,082	,457
	Equal variances not assumed			1,436	164,844	,153	,187	,130	-,070	,445
Attitude towards product	Equal variances assumed	,905	,343	-1,053	174	,294	-,13796	,13096	-,39643	,12051
	Equal variances not assumed			-1,086	164,780	,279	-,13796	,12700	-,38873	,11280
Package evaluation	Equal variances assumed	1,066	,303	-1,025	183	,307	-,11876	,11590	-,34743	,10991
	Equal variances not assumed			-1,040	161,439	,300	-,11876	,11422	-,34432	,10679
Attitude towards ad	Equal variances assumed	,021	,884	-,528	176	,598	-,0626984	,1187518	-,2970591	,1716623
	Equal variances not assumed			-,526	145,800	,600	-,0626984	,1191543	-,2981912	,1727944
Environmental concern	Equal variances assumed	7,068	,009	-1,741	172	,083	-,1239364	,0711898	-,2644545	,0165818
	Equal variances not assumed			-1,625	111,530	,107	-,1239364	,0762633	-,2750492	,0271765
Previous participation	Equal variances assumed	,695	,405	-3,038	183	,003	-,2859344	,0941069	-,4716085	-,1002604
	Equal variances not assumed			-2,944	137,590	,004	-,2859344	,0971126	-,4779606	-,0939083

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
I make an effort to recycle everything I can (packages, glass, plastic, paper)	Equal variances assumed	14,894	,000	-2,484	186	,014	-,211	,085	-,378	-,043
	Equal variances not assumed			-2,302	117,859	,023	-,211	,091	-,392	-,029
My family usually recycles.	Equal variances assumed	13,630	,000	-3,117	185	,002	-,329	,106	-,537	-,121
	Equal variances not assumed			-2,815	106,270	,006	-,329	,117	-,561	-,097
I did volunteer work in the past 3 years.	Equal variances assumed	2,025	,156	-1,781	184	,077	-,360	,202	-,758	,039
	Equal variances not assumed			-1,740	143,885	,084	-,360	,207	-,768	,049
I worked in a community project (school, neighborhood) in the past 3 years.	Equal variances assumed	1,139	,287	-,430	185	,668	-,080	,185	-,446	,286
	Equal variances not assumed			-,421	145,093	,674	-,080	,189	-,454	,295
I usually donate my clothes/toys/books to children who need.	Equal variances assumed	44,307	,000	-5,282	184	,000	-,499	,094	-,686	-,313
	Equal variances not assumed			-4,744	103,685	,000	-,499	,105	-,708	-,290

Table 3.4 Shapiro Wilk Test Normality Control Group

Tests of Normality^a

	Gender	Kolmogorov-Smirnov ^b			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Purchase intention	Male	,219	21	,010	,879	21	,014
	Female	,246	20	,003	,841	20	,004
Consumption intention	Male	,281	21	,000	,875	21	,012
	Female	,297	20	,000	,847	20	,005
Package evaluation	Male	,162	21	,159	,926	21	,117
	Female	,253	20	,002	,821	20	,002
Attitude towards product	Male	,250	21	,001	,879	21	,014
	Female	,193	20	,049	,914	20	,078
Perceived healthiness	Male	,368	21	,000	,710	21	,000
	Female	,394	20	,000	,675	20	,000
Attitude towards ad	Male	,144	21	,200	,928	21	,126
	Female	,119	20	,200	,965	20	,646

Table 3.5 Shapiro Wilk Test Normality Experimental Group 1

Tests of Normality^a

	Gender	Kolmogorov-Smirnov ^b			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Purchase intention	Male	,307	16	,000	,768	16	,001
	Female	,348	24	,000	,783	24	,000
Consumption intention	Male	,385	16	,000	,774	16	,001
	Female	,296	24	,000	,860	24	,003
Package evaluation	Male	,217	16	,043	,911	16	,120
	Female	,160	24	,117	,891	24	,014
Attitude towards product	Male	,215	16	,046	,865	16	,023
	Female	,203	24	,012	,908	24	,032
Perceived healthiness	Male	,368	16	,000	,707	16	,000
	Female	,298	24	,000	,787	24	,000
Attitude towards ad	Male	,187	16	,136	,940	16	,346
	Female	,223	24	,003	,912	24	,038

Table 3.6 Shapiro Wilk Test Normality Experimental Group 2

Tests of Normality^a

	Gender	Kolmogorov-Smirnov ^b			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Purchase intention	Male	,360	10	,001	,731	10	,002
	Female	,313	26	,000	,812	26	,000
Consumption intention	Male	,370	10	,000	,752	10	,004
	Female	,236	26	,001	,865	26	,003
Package evaluation	Male	,258	10	,058	,902	10	,231
	Female	,178	26	,033	,883	26	,007
Attitude towards product	Male	,201	10	,200	,894	10	,189
	Female	,167	26	,061	,881	26	,006
Perceived healthiness	Male	,329	10	,003	,655	10	,000
	Female	,328	26	,000	,721	26	,000
Attitude towards ad	Male	,248	10	,081	,867	10	,092
	Female	,138	26	,200	,943	26	,155

Table 3.7 Shapiro Wilk Test Normality Experimental Group 3

Tests of Normality^a

	Gender	Kolmogorov-Smirnov ^b			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Purchase intention	Male	,343	18	,000	,741	18	,000
	Female	,255	25	,000	,884	25	,009
Consumption intention	Male	,310	18	,000	,798	18	,001
	Female	,350	25	,000	,806	25	,000
Package evaluation	Male	,181	18	,124	,902	18	,062
	Female	,173	25	,051	,907	25	,026
Attitude towards product	Male	,186	18	,098	,946	18	,366
	Female	,166	25	,075	,922	25	,057
Perceived healthiness	Male	,435	18	,000	,614	18	,000
	Female	,354	25	,000	,715	25	,000
Attitude towards ad	Male	,136	18	,200	,947	18	,377
	Female	,137	25	,200	,962	25	,464

Table 3.8 T-test Control Group and Experimental Group 1 - Male

Group Statistics^a

Advertisement shown		N	Mean	Std. Deviation	Std. Error Mean
Package evaluation	Control group	22	3,8864	,77046	,16426
	Experimental group 1	18	4,1111	,73875	,17413
Attitude towards ad	Control group	22	3,693182	,9159039	,1952714
	Experimental group 1	17	3,955882	,6509326	,1578743

a. Gender = Male

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Package evaluation	Equal variances assumed	,160	,691	-,935	38	,356	-,22475	,24041	-,71144	,26194
	Equal variances not assumed			-,939	37,000	,354	-,22475	,23938	-,70977	,26028
Attitude towards ad	Equal variances assumed	1,164	,288	-1,002	37	,323	-,2627005	,2622128	-,7939942	,2685932
	Equal variances not assumed			-1,046	36,793	,302	-,2627005	,2511080	-,7715902	,2461892

a. Gender = Male

Table 3.9 T-test Control Group and Experimental Group 2 - Male

Group Statistics^a

Advertisement shown		N	Mean	Std. Deviation	Std. Error Mean
Package evaluation	Control group	22	3,8864	,77046	,16426
	Experimental group 2	13	3,8077	,77831	,21586
Attitude towards ad	Control group	22	3,693182	,9159039	,1952714
	Experimental group 2	12	3,687500	,5947211	,1716812

a. Gender = Male

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Package evaluation	Equal variances assumed	,042	,838	,291	33	,773	,07867	,27053	-,47172	,62907
	Equal variances not assumed			,290	25,110	,774	,07867	,27126	-,47987	,63721
Attitude towards ad	Equal variances assumed	2,586	,118	,019	32	,985	,0056818	,2942073	-,5935989	,6049625
	Equal variances not assumed			,022	30,837	,983	,0056818	,2600103	-,5247261	,5360897

a. Gender = Male

Table 3.10 T-test Control Group and Experimental Group 2 - Female

Group Statistics^a

Advertisement shown		N	Mean	Std. Deviation	Std. Error Mean
Attitude towards ad	Control group	24	3,916667	,6621222	,1351551
	Experimental group 2	30	3,916667	,7914776	,1445034

a. Gender = Female

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Attitude towards ad	Equal variances assumed	,837	,364	,000	52	1,000	,0000000	,2018544	-,4050505	,4050505
	Equal variances not assumed			,000	51,876	1,000	,0000000	,1978589	-,3970555	,3970555

a. Gender = Female

Table 3.11 T-test Control Group and Experimental Group 3 - Male

Group Statistics^a

Advertisement shown		N	Mean	Std. Deviation	Std. Error Mean
Attitude towards ad	Control group	22	3,693182	,9159039	,1952714
	Experimental group 3	19	3,644737	,8429272	,1933808
Package evaluation	Control group	22	3,8864	,77046	,16426
	Experimental group 3	20	4,0750	,69348	,15507

a. Gender = Male

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Attitude towards ad	Equal variances assumed	,121	,730	,175	39	,862	,0484450	,2765354	-,5109007	,6077907
	Equal variances not assumed			,176	38,824	,861	,0484450	,2748218	-,5075153	,6044053
Package evaluation	Equal variances assumed	,080	,779	-,831	40	,411	-,18864	,22705	-,64753	,27026
	Equal variances not assumed			-,835	39,998	,409	-,18864	,22589	-,64519	,26792

a. Gender = Male

Table 3.12 T-test Control Group and Experimental Group 3 - Female

Group Statistics^a

Advertisement shown		N	Mean	Std. Deviation	Std. Error Mean
Attitude towards product	Control group	22	4,2727	,61193	,13046
	Experimental group 3	26	3,6731	1,01924	,19989
Attitude towards ad	Control group	24	3,916667	,6621222	,1351551
	Experimental group 3	27	3,722222	,7637626	,1469862

a. Gender = Female

Independent Samples Test^a

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Attitude towards product	Equal variances assumed	3,358	,073	2,414	46	,020	,59965	,24844	,09956	1,09974
	Equal variances not assumed			2,512	41,805	,016	,59965	,23870	,11787	1,08143
Attitude towards ad	Equal variances assumed	,053	,819	,966	49	,339	,1944444	,2013864	-,2102568	,5991457
	Equal variances not assumed			,974	48,975	,335	,1944444	,1996794	-,2068314	,5957203

a. Gender = Female

Table 3.13 Mann-Whitney test Control Group and Experimental Group 1 – Male

Ranks^a

Advertisement shown		N	Mean Rank	Sum of Ranks
Purchase intention	Control group	23	23,07	530,50
	Experimental group 1	20	20,78	415,50
	Total	43		
Consumption intention	Control group	23	22,07	507,50
	Experimental group 1	20	21,93	438,50
	Total	43		
Perceived healthiness	Control group	21	20,71	435,00
	Experimental group 1	19	20,26	385,00
	Total	40		
Attitude towards product	Control group	22	21,25	467,50
	Experimental group 1	18	19,58	352,50
	Total	40		

a. Gender = Male

Test Statistics^{a,b}

	Purchase intention	Consumption intention	Perceived healthiness	Attitude towards product
Mann-Whitney U	205,500	228,500	195,000	181,500
Wilcoxon W	415,500	438,500	385,000	352,500
Z	-,634	-,040	-,139	-,461
Asymp. Sig. (2-tailed)	,526	,968	,890	,645
Exact Sig. [2*(1-tailed Sig.)]			,915 ^c	,657 ^c

a. Gender = Male

b. Grouping Variable: Advertisement shown

c. Not corrected for ties.

Table 3.14 Mann-Whitney test Control Group and Experimental Group 1 – Female

Ranks^a

	Advertisement shown	N	Mean Rank	Sum of Ranks
Purchase intention	Control group	26	26,88	699,00
	Experimental group 1	28	28,07	786,00
	Total	54		
Consumption intention	Control group	26	26,79	696,50
	Experimental group 1	28	28,16	788,50
	Total	54		
Perceived healthiness	Control group	24	27,33	656,00
	Experimental group 1	26	23,81	619,00
	Total	50		
Attitude towards product	Control group	22	25,98	571,50
	Experimental group 1	24	21,23	509,50
	Total	46		
Package evaluation	Control group	26	28,63	744,50
	Experimental group 1	27	25,43	686,50
	Total	53		
Attitude towards ad	Control group	24	27,67	664,00
	Experimental group 1	27	24,52	662,00
	Total	51		

a. Gender = Female

Test Statistics^{a,b}

	Purchase intention	Consumption intention	Perceived healthiness	Attitude towards product	Package evaluation	Attitude towards ad
Mann-Whitney U	348,000	345,500	268,000	209,500	308,500	284,000
Wilcoxon W	699,000	696,500	619,000	509,500	686,500	662,000
Z	-,302	-,345	-,936	-1,226	-,776	-,762
Asymp. Sig. (2-tailed)	,763	,730	,349	,220	,438	,446

a. Gender = Female

b. Grouping Variable: Advertisement shown

Table 3.15 Mann-Whitney test Control Group and Experimental Group 2 – Male

Ranks^a

	Advertisement shown	N	Mean Rank	Sum of Ranks
Purchase intention	Control group	23	19,33	444,50
	Experimental group 2	13	17,04	221,50
	Total	36		
Consumption intention	Control group	23	18,98	436,50
	Experimental group 2	13	17,65	229,50
	Total	36		
Perceived healthiness	Control group	21	16,43	345,00
	Experimental group 2	11	16,64	183,00
	Total	32		
Attitude towards product	Control group	22	17,36	382,00
	Experimental group 2	12	17,75	213,00
	Total	34		

a. Gender = Male

Test Statistics^{a,b}

	Purchase intention	Consumption intention	Perceived healthiness	Attitude towards product
Mann-Whitney U	130,500	138,500	114,000	129,000
Wilcoxon W	221,500	229,500	345,000	382,000
Z	-,670	-,395	-,068	-,111
Asymp. Sig. (2-tailed)	,503	,693	,946	,912
Exact Sig. [2*(1-tailed Sig.)]	,537 ^c	,721 ^c	,969 ^c	,929 ^c

a. Gender = Male

b. Grouping Variable: Advertisement shown

c. Not corrected for ties.

Table 3.16 Mann-Whitney test Control Group and Experimental Group 2 – Female

Ranks^a

	Advertisement shown	N	Mean Rank	Sum of Ranks
Purchase intention	Control group	26	28,06	729,50
	Experimental group 2	35	33,19	1161,50
	Total	61		
Consumption intention	Control group	26	29,62	770,00
	Experimental group 2	34	31,18	1060,00
	Total	60		
Perceived healthiness	Control group	24	29,46	707,00
	Experimental group 2	33	28,67	946,00
	Total	57		
Attitude towards product	Control group	22	30,02	660,50
	Experimental group 2	33	26,65	879,50
	Total	55		
Package evaluation	Control group	26	30,87	802,50
	Experimental group 2	31	27,44	850,50
	Total	57		

a. Gender = Female

Test Statistics^{a,b}

	Purchase intention	Consumption intention	Perceived healthiness	Attitude towards product	Package evaluation
Mann-Whitney U	378,500	419,000	385,000	318,500	354,500
Wilcoxon W	729,500	770,000	946,000	879,500	850,500
Z	-1,196	-,361	-,200	-,784	-,797
Asymp. Sig. (2-tailed)	,232	,718	,841	,433	,426

a. Gender = Female

b. Grouping Variable: Advertisement shown

Table 3.17 Mann-Whitney test Control Group and Experimental Group 3 – Male

Ranks^a

	Advertisement shown	N	Mean Rank	Sum of Ranks
Purchase intention	Control group	23	21,22	488,00
	Experimental group 3	20	22,90	458,00
	Total	43		
Consumption intention	Control group	23	21,98	505,50
	Experimental group 3	20	22,03	440,50
	Total	43		
Perceived healthiness	Control group	21	18,76	394,00
	Experimental group 3	18	21,44	386,00
	Total	39		
Attitude towards product	Control group	22	21,93	482,50
	Experimental group 3	19	19,92	378,50
	Total	41		

a. Gender = Male

Test Statistics^{a,b}

	Purchase intention	Consumption intention	Perceived healthiness	Attitude towards product
Mann-Whitney U	212,000	229,500	163,000	188,500
Wilcoxon W	488,000	505,500	394,000	378,500
Z	-,474	-,013	-,879	-,553
Asymp. Sig. (2-tailed)	,635	,989	,379	,580
Exact Sig. [2*(1-tailed Sig.)]			,477 ^c	

a. Gender = Male

b. Grouping Variable: Advertisement shown

c. Not corrected for ties.

Table 3.18 Mann-Whitney test Control Group and Experimental Group 3 – Female

Ranks^a

	Advertisement shown	N	Mean Rank	Sum of Ranks
Purchase intention	Control group	26	26,42	687,00
	Experimental group 3	28	28,50	798,00
	Total	54		
Consumption intention	Control group	26	25,69	668,00
	Experimental group 3	28	29,18	817,00
	Total	54		
Perceived healthiness	Control group	24	26,17	628,00
	Experimental group 3	27	25,85	698,00
	Total	51		
Package evaluation	Control group	26	29,83	775,50
	Experimental group 3	28	25,34	709,50
	Total	54		

a. Gender = Female

Test Statistics^{a,b}

	Purchase intention	Consumption intention	Perceived healthiness	Package evaluation
Mann-Whitney U	336,000	317,000	320,000	303,500
Wilcoxon W	687,000	668,000	698,000	709,500
Z	-,516	-,876	-,085	-1,072
Asymp. Sig. (2-tailed)	,606	,381	,932	,284

a. Gender = Female

b. Grouping Variable: Advertisement shown

Table 3.19 Spearman's rho for Experimental Group 3 by gender

			Correlations					
MALE			Attitude towards product	Purchase intention	Consumption intention	Package evaluation	Perceived healthiness	Attitude towards ad
Spearman's rho	Attitude towards product	Correlation Coefficient	1,000	,355	,603**	,304	-,175	,436
		Sig. (2-tailed)		,136	,006	,207	,487	,062
		N	19	19	19	19	18	19
FEMALE			Attitude towards product	Purchase intention	Consumption intention	Package evaluation	Perceived healthiness	Attitude towards ad
Spearman's rho	Attitude towards product	Correlation Coefficient	1,000	,696**	,695**	,711**	,346	,669**
		Sig. (2-tailed)		,000	,000	,000	,084	,000
		N	26	26	26	26	26	25

Appendix IV

Table 4.1 Correlations between Environmental Concern and Previous Participation and the other variables for Experimental Group 2

EXPERIMENTAL GROUP 2		Correlations					
		Purchase intention	Consumption intention	Package evaluation	Attitude towards product	Perceived healthiness	Attitude towards ad
Environmental concern	Pearson Correlation	-,091	-,113	,095	-,002	-,124	,124
	Sig. (2-tailed)	,582	,498	,571	,992	,472	,458
	N	39	38	38	37	36	38
Previous participation	Pearson Correlation	,242	,184	,465**	,397**	,224	,275
	Sig. (2-tailed)	,110	,227	,002	,009	,159	,091
	N	45	45	41	42	41	39

Table 4.2 Correlations between Environmental Concern and Previous Participation and the other variables for Experimental Group 3

EXPERIMENTAL GROUP 3		Correlations					
		Purchase intention	Consumption intention	Package evaluation	Attitude towards product	Perceived healthiness	Attitude towards ad
Environmental concern	Pearson Correlation	-,033	,010	,260	-,051	,110	,240
	Sig. (2-tailed)	,827	,947	,081	,746	,481	,112
	N	46	46	46	43	43	45
Previous participation	Pearson Correlation	,155	,262	,120	,158	-,075	,149
	Sig. (2-tailed)	,308	,082	,431	,313	,633	,335
	N	45	45	45	43	43	44

Significant Kruskal-Wallis Tests for found for Experimental Group 2, differentiating by gender

Table 4.3 Item Q9.1 ‘The problems of nature destruction, pollution and endangered animals are...’ of little concern to me (1) – of great concern to me (5) and Attitude towards the ad. Gender= Male

Test Statistics^{a,b,c}

	Purchase intention	Consumption intention	Perceived healthiness	Attitude towards product	Package evaluation	Attitude towards ad
Chi-Square	,034	,034	,681	,902	,609	3,892
df	1	1	1	1	1	1
Asymp. Sig.	,853	,853	,409	,342	,435	,049

a. Gender = Male

b. Kruskal Wallis Test

c. Grouping Variable: The problems of nature destruction, pollution and endangered animals are...

Ranks^a

	The problems of nature destruction, pollution and endangered animals are...	N	Mean Rank
Purchase intention	4	3	6,67
	of great concern to me	10	7,10
	Total	13	
Consumption intention	4	3	7,33
	of great concern to me	10	6,90
	Total	13	
Perceived healthiness	4	3	4,83
	of great concern to me	8	6,44
	Total	11	
Attitude towards product	4	3	4,83
	of great concern to me	9	7,06
	Total	12	
Package evaluation	4	3	5,50
	of great concern to me	10	7,45
	Total	13	
Attitude towards ad	4	3	3,00
	of great concern to me	9	7,67
	Total	12	

a. Gender = Male

Table 4.4 Item Q10.1 “I make an effort to recycle everything I can (packages, glass, plastic, paper)” Totally disagree (1) – totally agree (2) and Consumption intention; Attitude towards the product; Package evaluation. Gender= Female

Test Statistics^{a,b,c}

	Purchase intention	Consumption intention	Perceived healthiness	Attitude towards product	Package evaluation	Attitude towards ad
Chi-Square	,456	3,952	,202	4,145	4,414	,053
df	1	1	1	1	1	1
Asymp. Sig.	,499	,047	,653	,042	,036	,818

a. Gender = Female

b. Kruskal Wallis Test

c. Grouping Variable: I make an effort to recycle everything I can (packages, glass, plastic, paper)

Ranks^a

I make an effort to recycle everything I can (packages, glass, plastic, paper)		N	Mean Rank
Purchase intention	Agree	8	15,13
	Totally agree	25	17,60
	Total	33	
Consumption intention	Agree	8	11,06
	Totally agree	24	18,31
	Total	32	
Perceived healthiness	Agree	8	14,88
	Totally agree	23	16,39
	Total	31	
Attitude towards product	Agree	8	10,50
	Totally agree	23	17,91
	Total	31	
Package evaluation	Agree	8	9,75
	Totally agree	21	17,00
	Total	29	
Attitude towards ad	Agree	8	13,94
	Totally agree	20	14,73
	Total	28	

a. Gender = Female

Significant Chi-Square tests found for the items of the variables that showed significant differences above, and descriptive Crosstabs

Table 4.5 Item Q10.1 “I make an effort to recycle everything I can (packages, glass, plastic, paper)” Totally disagree (1) – totally agree (2) and Q3 Consumption intention. Gender=female

Crosstab

			Consumption intention					Total
			Não gostava nada	Gostava pouco	Gostava mais ou menos	Gostava	Gostava muito	
I make an effort to recycle everything I can (packages, glass, plastic, paper)	Agree	Count	1	0	5	1	1	8
		% within I make an effort to recycle everything I can (packages, glass, plastic, paper)	12,5%	0,0%	62,5%	12,5%	12,5%	100,0%
	Totally agree	Count	2	1	2	12	7	24
		% within I make an effort to recycle everything I can (packages, glass, plastic, paper)	8,3%	4,2%	8,3%	50,0%	29,2%	100,0%
Total		Count	3	1	7	13	8	32
		% within I make an effort to recycle everything I can (packages, glass, plastic, paper)	9,4%	3,1%	21,9%	40,6%	25,0%	100,0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	11,236 ^a	4	,024	,016		
Likelihood Ratio	10,715	4	,030	,033		
Fisher's Exact Test	9,883			,018		
Linear-by-Linear Association	2,440 ^b	1	,118	,167	,089	,042
N of Valid Cases	32					

a. 7 cells (70,0%) have expected count less than 5. The minimum expected count is ,25.

b. The standardized statistic is 1,562.

Table 4.6 Item Q10.1 “I make an effort to recycle everything I can (packages, glass, plastic, paper)” Totally disagree (1) – totally agree (2) and Q4.2 Package does not confer quality (1) – Confers quality (5). Gender=female

Crosstab

			Package_does not confer quality_confers quality				Total	
			não transmite qualidade	2	3	4		transmite qualidade
I make an effort to recycle everything I can (packages, glass, plastic, paper)	Agree	Count	0	1	4	2	1	8
		% within I make an effort to recycle everything I can (packages, glass, plastic, paper)	0,0%	12,5%	50,0%	25,0%	12,5%	100,0%
	Totally agree	Count	1	1	1	6	14	23
		% within I make an effort to recycle everything I can (packages, glass, plastic, paper)	4,3%	4,3%	4,3%	26,1%	60,9%	100,0%
Total	Count	1	2	5	8	15	31	
	% within I make an effort to recycle everything I can (packages, glass, plastic, paper)	3,2%	6,5%	16,1%	25,8%	48,4%	100,0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	11,501 ^a	4	,021	,017		
Likelihood Ratio	11,282	4	,024	,025		
Fisher's Exact Test	10,681			,009		
Linear-by-Linear Association	4,591 ^b	1	,032	,038	,030	,018
N of Valid Cases	31					

a. 8 cells (80,0%) have expected count less than 5. The minimum expected count is ,26.

b. The standardized statistic is 2,143.

Table 4.7 Item Q10.1 “I make an effort to recycle everything I can (packages, glass, plastic, paper)” Totally disagree (1) – totally agree (2) and Q5.2 Product boring (1) – fun (5). Gender=female

Crosstab

			Product_Boring-fun				Total
			é um bocado seca	não é uma seca nem divertido	é um bocado divertido	é divertido	
I make an effort to recycle everything I can (packages, glass, plastic, paper)	Agree	Count	0	3	5	0	8
		% within I make an effort to recycle everything I can (packages, glass, plastic, paper)	0,0%	37,5%	62,5%	0,0%	100,0%
	Totally agree	Count	3	7	2	11	23
		% within I make an effort to recycle everything I can (packages, glass, plastic, paper)	13,0%	30,4%	8,7%	47,8%	100,0%
Total		Count	3	10	7	11	31
		% within I make an effort to recycle everything I can (packages, glass, plastic, paper)	9,7%	32,3%	22,6%	35,5%	100,0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	12,571 ^a	3	,006	,005		
Likelihood Ratio	14,810	3	,002	,003		
Fisher's Exact Test	11,232			,003		
Linear-by-Linear Association	,459 ^b	1	,498	,559	,316	,123
N of Valid Cases	31					

a. 5 cells (62,5%) have expected count less than 5. The minimum expected count is ,77.

b. The standardized statistic is ,677.

Table 4.8 Item Q9.1 ‘The problems of nature destruction, pollution and endangered animals are...’ of little concern to me (1) – of great concern to me (5) and Q7.3 Ad stupid (1) – Great (5). Gender= Male

Crosstab

			Ad_stupid_great				Total
			2	3	4	é fantástico	
The problems of nature destruction, pollution and endangered animals are...	4	Count	1	2	0	0	3
		% within The problems of nature destruction, pollution and endangered animals are...	33,3%	66,7%	0,0%	0,0%	100,0%
	of great concern to me	Count	0	1	5	3	9
		% within The problems of nature destruction, pollution and endangered animals are...	0,0%	11,1%	55,6%	33,3%	100,0%
Total	Count	1	3	5	3	12	
	% within The problems of nature destruction, pollution and endangered animals are...	8,3%	25,0%	41,7%	25,0%	100,0%	

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	8,444 ^a	3	,038	,036		
Likelihood Ratio	9,677	3	,022	,036		
Fisher's Exact Test	6,777			,036		
Linear-by-Linear Association	6,195 ^b	1	,013	,018	,014	,014
N of Valid Cases	12					

a. 8 cells (100,0%) have expected count less than 5. The minimum expected count is ,25.

b. The standardized statistic is 2,489.