BBR
BRAZILIAN BUSINESS REVIEW
v.12, n.5
Vitória-ES, Sep.-Oct. 2015
p. 39 – 56 ISSN 1808-2386 DOI: http://dx.doi.org/10.15728/bbr.2015.12.5.3

The Placebo Effect in Marketing: the Ability of Country of Origin to Modify Product Performance

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ABSTRACT

The placebo effect was first noted in studies in the areas of clinical medicine and pharmacology, and basically consists of the ability of inert products to produce effects because of the user's belief in their efficacy. Stereotypes due to the country of origin of products is a global phenomenon, in which goods from countries with negative stereotypes are perceived as having worse quality in relation to products from countries with positive reputations. This study analyzed the occurrence of this effect for an energy drink, based on an experiment among 105 university students, by measuring the variations in mental acuity and reasoning speed after drinking products supposedly originating from different countries. The results indicated that the origin from a country with a negative stereotype regarding product quality can generate a negative placebo effect. In other words, the subjects who drank the beverage thinking it was from China performed worse that the participants of the control group, who thought the drink came from Germany. However, we did not identify a positive placebo affect of that country of origin.

Keywords: Placebo effect. Country-of-origin stereotype. Country-of-origin effect.

Recebido em 19/02/2014; revisado em 29/04/2014; aceito em 06/06/2014; divulgado em 01/09/2015

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Note from the Editor: *The article was accepted by Emerson Mainardes.*

1 INTRODUCTION

The gradual lowering of global trade barriers and the establishment of closer commercial relations between countries are important factors driving the growth of international commerce. The resulting intensification of the cross-border flow of products means greater diversity of consumption, with products made in virtually any part of the world accessible to the average consumer, who can, for example, drive a German car, wear Italian clothes, eat packaged food from China and watch Hollywood movies on Japanese home entertainment equipment (FIRAT, 1997).

In this context, there has been growing academic interest in studying the influence of the country of origin on consumer acceptance of products, starting with the work of Schooler in 1965. In this sense, research indicates the existence of the so-called country-of-origin effect, which consists of the ability of the country where a product is made to influence consumers' assessments of a determined product (SCHWEIGER; OTTER; STREBINGER, 1997; KNIGHT; CALANTONE, 2000). However, to expand knowledge beyond just the effect of the country of origin on perceived quality, it is worthwhile to analyze whether that origin can also affect the real performance of the product.

For this purpose, this article reports a study of whether the country-of-origin attribute can cause a placebo effect through better performance. Although numerous articles have analyzed the effects of this attribute on consumers' perception, it should be stressed that perception and the placebo effect are not equal constructs. While the former indicates what consumers expect about products depending on their origin, the second involves the real performance from using or ingesting the product.

Therefore, the study of the placebo effect triggered by the country of origin rather than just consumers' perception of the product can produce new and valuable insights in the marketing area. This is particularly important with the trend toward increasing availability of imported products at accessible prices, promoted by trade opening (SAMIEE, 1994).

2 THEORETICAL FRAMEWORK

2.1 PLACEBO EFFECT: ORIGIN AND DEFINITION

It is believed that the first controlled study of the placebo effect was carried out in 1799. Some 200 years later, advances in research and technology have allowed scientists to identify some of the psychological and neurobiological mechanisms of the placebo effect and to explore other complexities of the interaction between mind and body. Because of this,

knowledge of the mechanisms of the placebo effect has advanced considerably in the past decade (PRICE; FINNISS; BENEDETTI, 2008).

According to Stewart-Williams and Podd (2004), a placebo is defined in the medical literature as a substance or procedure that does not have inherent power to produce the expected or desired effect. Shapiro and Morris (1978) presented one of the most accepted and reproduced definitions of placebo: a therapy utilized to obtain an undefined psychological or physiological effect, or a therapy used for a specific purpose, but without any active ingredient or resource to obtain a determined effect.

Research results suggest that the placebo effect might be caused by physiological alterations of the brain. Researchers have discovered, for example, that when people receive placebos for pain, their brains release chemical substances to alleviate the pain they are feeling. This demonstrates that placebos are able to promote real changes in the brain's chemistry, not just in individuals' perception (KAPTCHUK; EISENBERG; KOMAROFF, 2002).

2.2 COUNTRY OF ORIGIN AND THE PLACEBO EFFECT

The country of origin of a product is a basic extrinsic signal, like seller, price or brand. It is an intangible attribute of the product and stands apart from its physical characteristics (MEHMET; PIRTINI; ERDEM, 2010). Therefore, the country-of-origin effect has been broadly defined as the positive or negative influence of the country on the decision-making process of consumers or their subsequent behavior in relation to a product (BRODOWSKY; TAN; MEILICH, 2004).

According to Manrai, Lascu and Manrai (1998), consumers evaluate products not only based on elements such as color, design and shape, but also by aspects like price, warranty and country of origin. In this same line, Samili (2013) argues that nowadays, more than in the past, when coming into contact with a product, consumers revise their assessments if they discover that the product to be consumed or used is produced in a country that does not have a good reputation in terms of quality (SAMILI, 2013).

Therefore, the image of the country of origin, normally triggered by the expression *"*Made in*"*, encompasses individuals' beliefs about a specific country (MARTIN; EROGLU, 1993) and reflects their general perception about the quality of the products made in that country (SCHWEIGER; OTTER; STREBINGER, 1997; KNIGHT; CALANTONE, 2000). In this same current, Zdravkovic (2013) affirms that the country of origin significantly

influences the judgment of products, and that this judgment is moderated by the type of information about the product (positive, negative, dearth of information). Therefore, the image of the country can be defined as the picture or stereotype that consumers attribute to a country's products, which is created by variables such as national traits and the country's economic, political, historical and cultural context.

On the matter of the form of communicating information about a product's country of origin, Ayrosa (2000) points to the following elements: label, "made in", direct suggestion by means of the brand or company name (British Airways, Ibéria), indirect suggestion by means of the sound or spelling of the brand or company name (Ferrari, Matsuhita, Olivetti, Renault, Roquefort cheese, Frascatti wine) and indication or suggestion by the product packaging (Fosters beer, Reebok shoes).

According to Giraldi and Ikeda (2009), a country's image has a strong influence on consumers' assessments of the products coming from that country, generating what in the marketing literature is called the "country-of-origin effect". In general, according to most authors, the country-of-origin effect refers to the influence of the information about the country of origin on the attitudes and behavior with respect to a product or brand.

Schooler (1965) was the first researcher to publish empirical research into the influence the country of origin exerts on the acceptance of products. In his work, he used products that were identical in all their attributes except the country of manufacture. The results showed that the country of origin attribute produced significant differences in consumers' perceptions about the products.

Therefore, the influence of the country-of-origin attribute comes from the stereotypical evaluations that individuals form about other people or countries, which extend to the products made in those countries. In summary, as put by Maheswaran (1994), consumers use the information on the country of origin to create expectations and to assess the products they will consume, and according to the content of this information, the country-of-origin effect can be positive or negative.

In light of this, the meaning of the place of production of a product on its demand should be addressed as an information signaling problem. This means that product perception can be conceived as based on a series of information cues, both intrinsic (such as flavor, design or fit) and extrinsic (like price, brand, warranty or country of origin). Each cue provides a base for consumers to form their evaluation of the product. The interest in

investigating the effect of this information on consumers' assessments, including the country of origin, has generated studies of perceived risk and buying behavior (BILKEY; NES, 1982).

The studies summarized here clearly reveal the influence of country of origin on consumers' perceptions and choices regarding products. On the other hand, there is insufficient evidence to make claims about the ability of the country of origin to influence or modify the real performance of products, even when there are no intrinsic properties for this.

With respect to the development of a framework for analyzing the placebo effect of the country of origin, there is general alignment with the theoretical structure proposed by Shiv, Carmon and Ariely (2005b) (Figure 1), because just as price carries a belief about quality (cheaper products have lower quality), the country-of-origin attribute, as observed previously, is also connected with an idea of quality (imported products are better than domestic ones, or American products are better than Chinese, for example).

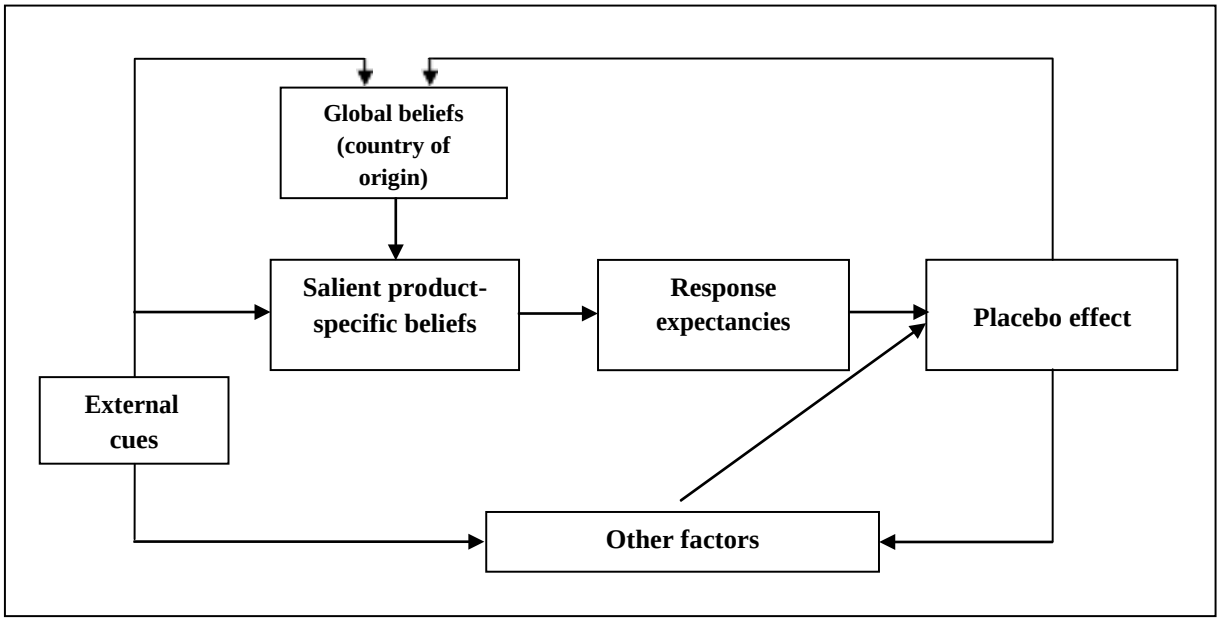

Figure 1 - Framework for studies of the placebo effect of country of origin
Source: Adapted from Shiv, Carmon and Ariely (2005b)

In light of this, it is important to carry out investigations to verify whether the country-of-origin attribute, besides influencing the perceived product quality, can also trigger the placebo effect on the performance of products. Therefore, it is pertinent to summarize a series of studies of the placebo effect of prices, investigating whether other extrinsic factors of products (in this case the country of origin) are able to alter the performance of products.

2.2.1 The Stereotype of the Country of Origin and the Placebo Effect

The origin of the stereotypes about the country of origin can vary among consumers. Some are based on the experience of using or consuming products from the country in question, others on first-hand experience (such as study and travel abroad), knowledge about the country, political convictions, ethnocentric tendencies, and fear of the unknown, among others (SAMIEE, 1994). Besides these aspects, the historical relations between countries can also be an influential factor on the generation of stereotypes regarding nations (BAR-TAL, 1997). Put another way, the perception of consumers about the country where a determined product is made acts as a simplifying factor in building the image of products, since the knowledge that a determined product was made in a country with a reputation for high (or low) quality of goods has a direct influence on judgments about that product (KUMARA; CANHUA, 2010).

In this context, a country's image can influence how consumers perceive its products and thus the sales performance of its products in the international market (MANRAI; LASCU; MANRAI, 1998). This occurrence is due to the fact that people in some cases judge and assess a product only based on the image and reputation of the country of origin, independent from the product's other characteristics (HONG; KANG, 2006). Wyer (2011) goes further, stating that the stereotype associated with the country of origin exerts a stronger influence on consumers' perceptions about the product than does the product's attributes.

Therefore, when the origin of a product is attributed to a country recognized for making high-quality products, there will be a positive influence on consumers' judgments about this product (LI; WYER; 1994). On the other hand, when the country has a reputation for making low-quality products, consumers will tend to have a negative evaluation of the product (HONG; KANG, 2006).

Various studies have examined the influence of the country of origin on the expectation and perceptions of products. For example, Gaedake (1973) found that food products, electronic equipment and textiles produced in developing countries were considered inferior to American products. Likewise, Han (1989) observed that products made in developed countries had better evaluations than products from emerging or underdeveloped countries.

Chu et al. (2010), in this same line, pointed out that the negative effect of the country of origin on the perceptions of a product tends to be stronger than the effect of a positive image. According to them, a television with the indication of "Made in Indonesia" tends to have a worse evaluation than an equal one bearing a "Made in Japan" label. In their experiment, the

negative stereotype of the first country tended to be more latent when compared to the positive stereotype of the second country, reducing the perception of quality of that country's product.

Another example of research into the country-of-origin effect was the study by Ayrosa in 1991. He investigated the influence of the country of origin of movies on the way they are perceived by spectators and observed that the survey participants expressed less favorable opinions of Brazilian films than foreign films.

Another study with this perspective was carried out by Stewart and Chan (1993). They observed that buses carrying the Mercedes-Benz brand manufactured in developing countries had a less favorable image than buses with the same brand made in Germany. This finding is directly associated with the idea that less developed countries produce products with inferior quality, at least in the automotive sector.

Kabadayi and Lerman (2011) also observed, in comparing consumers' preferences in relation to stuffed bears, that products from China received lower evaluations by consumers than equal products from Germany. Finally, we can mention the work of Vazquez (1994), who analyzed the influence of the country of origin on the purchase of olive oil by importers in Rio de Janeiro, finding that the country of origin can influence the perception of quality. It should be stressed that all these studies were restricted to a single type of product, so the influence of the country of origin may well be stronger or weaker depending on the product type.

In light of the findings mentioned, it is evident that the country of origin has an influence on consumers' perception of products. Furthermore, the results of those studies show that, at least for some product types, those from developing countries are perceived as having lower quality than products from developed countries.

In this sense, there is a traditional global belief, in particular, that high-technology products from developed countries are better than those from emerging countries. Besides this, there are certain stereotyped product-country associations that give a certain cachet to consumers' perceptions, such as Swiss watches, Japanese electronic goods and German cars (AGRAWAL; KAMAKURA, 1999). These beliefs, along with the idea that cheaper products have lower quality, trigger consumers' expectations and perceptions of products so that they evaluate them in different ways.

Based on the above theoretical framework and empirical findings, we formulated the following hypotheses:

H1: The country of origin can trigger a placebo effect on the real performance of a product.

H1a: A country of origin with positive stereotype can cause a positive placebo effect on the real performance of a product.

H1b: A country of origin with negative stereotype can cause a negative placebo effect on the real performance of a product.

3 METHOD

The survey carried out had a 3 x 1 factorial design, operated by means of a between-subjects experiment, in which each participant responded to only one of the scenarios (GREENWALD, 1976). This experimental setup is evaluated by comparison between different groups of subjects, submitted to different stimuli.

The experiment was conducted among 105 undergraduate students majoring in the areas of social and applied sciences with ages between 18 and 52 years. The sample was chosen by convenience (non-probabilistic), in which the respondents are chosen by the researcher's own criteria without any statistical inference (MALHOTRA, 2006).

In selecting the participants, we did not pose any restrictions regarding sex, age, major or progress (semesters completed). However, when composing the experimental groups, we took care to attain uniform distribution of the students, to prevent, for example, one group from being composed only of students with a determined major. The use of college students in studies of the placebo effect was also chosen by Shiv, Carmon and Ariely (2005a) and Fillmore and Vogel-Sprott (1992). The test subjects did not receive any payment or other reward for participating in the study.

The objective of the experiment was to analyze the ability of the country of origin to trigger a placebo effect on the real performance of a product, based on the country's stereotype. For this purpose, we formed three groups, which were exposed to the same manipulations, only differing in relation to the information on the product's country of origin. One of the groups (control) received no information on the country of origin (group NI), one group received information that the product came from a country with a negative stereotype (group NS) and the final group received information that the product came from a country with a positive stereotype (group PS).

The countries used in the experiment proper were defined in a prior exploratory step. Based on the opinions elicited in this step, we chose the United States and China as the countries with positive and negative stereotypes, respectively.

The experiment was operationalized starting with distribution of a sheet with information on the product to each participant. The product was an energy drink and all the sheets presented the same basic product descriptions (content, ingredients and nutritional information), along with an image of the product and its origin. The only difference was the product's origin: the sheets distributed to group NI did not contain any mention of the product's origin, while those handed out to group NS identified the product as coming from China and those given to group PS reported the product was made in the United States.

The groups' participants received one of the three information sheets and a cup (about 200 ml) containing the energy drink formulation. They were instructed to drink the entire cupful after reading the information sheet. All the participants received the same beverage, although they believed they were receiving distinct products.

Like the process used by Shiv, Carmon and Ariely (2005a), after the participants drank the beverage, there was a 10-minute waiting period, justified by the need to wait for the product to take effect. During this period, we showed a film on a large screen to distract the participants while waiting.

After the 10-minute wait, all the participants received a sheet with 50 anagrams, similar to the strategy used by Ariely (2010). The participants were given 5 minutes to solve as may anagrams as possible. The performance of each participant was assessed by the number of anagrams correctly solved.

After the solution of the anagrams, the participants received a questionnaire, with the main purpose of checking the effect of the manipulations applied, i.e., confirming that the participants had paid heed to the manipulation on the country of origin. For this purpose, and to establish the validity of the experiment (KHAN, 2011), besides asking the respondent about the origin the beverage he or she had drunk, we posed questions to verify the recognition and image of the country of origin regarding the production of energy drinks.

To complement the questions to check the manipulations, based on Shiv, Carmon and Ariely (2005a), the questionnaire given at the end of the experiment contained items to control for variables regarding the frequency of consuming energy drinks, the participant's opinion about the taste, whether the beverage tasted similar to another similar product

consumed in the past, previous experience in solving anagrams and the self-perception of each person's skill in solving anagrams. These measures served as the covariables in the analyses carried out.

4 PRESENTATION OF THE RESULTS

A total of 105 students participated in the experiment. Nine of them were dropped from the final sample because of inconsistent responses or failure to answer one or more questions (missing values). The average age of the entire sample was 22.14 years with standard deviation of 6.19 years. As to gender, 40 participants were men (41.67%) and 56 were women (58.32%).

The number of participants per group varied from 29 to 34. No significant differences were found among the three groups regarding age ($F(1.92)=0.611$; $p=0.436$) and gender ($F(1.92)=0.289$; $p=0.592$). This confirms that from a demographic standpoint, there were no differences between the individuals who were assigned to the groups.

Before analyzing the data, we checked for outliers, normality and homoscedasticity of the data, as suggested by Hair et al. (2005b). We did not carry out any treatment of missing values in this step, since we had previously excluded questionnaires with missing or conflicting answers.

Based on calculation of the Z-score, no atypical observations or outliers were identified and excluded, since none of the scores were greater than 3 or lower than -3. Thus, the final sample remained with 96 cases.

The normality of the distribution was initially verified by analysis of symmetry and kurtosis. According to Hair et al. (2005b), in normal distributions the symmetry and kurtosis values are near zero. Both of these conditions were satisfied, since the asymmetry and kurtosis values were, respectively, 0.066 and 0.671. Besides computing these two measures, we also applied the Kolmogorov-Smirnov (K-S) tests, which presented values of 0.066; $p=0.200$, meaning acceptance of the null hypothesis that the data are normally distributed.

To check whether the variances of any variables differed between groups, we applied the Levene test. The result (Levene=3.163; $p=0.047$) indicated that the variance of the dependent variable (anagram solution) was different than that of the independent variable among the groups, characterizing heteroscedasticity of the data. According to Hair et al. (2005b), correlation exists between homoscedasticity and normality, and alterations to make

the data homoscedastic change the normality. In this respect, we opted to preserve the normality of the data.

Another procedure adopted was to check the manipulation carried out was properly perceived by the participants. To reiterate, the verification questions were applied only to those who received information that the energy drink came from China or the United States. The check question about the product's country of origin of the product was exclusive in nature, because the participants who answered incorrectly or did not answer the question were excluded from the sample. The other answers to the check questions were submitted to analysis of variance (ANOVA) with the LSD post-hoc test. For the variable referring to the country's recognition for manufacture of energy drinks ($M=2.836$; $\sigma=1.388$), we observed $F(1.65)=56.136$; $p=0.00$, and in relation to country image ($M=3.209$; $\sigma=1.274$), we found $F(1.65)=45.116$; $p=0.00$. Therefore, these tests indicated that the individuals belonging to groups NS and PS presented difference of means for the verification variables.

We also examined the occurrence of covariables among the control variables used in the experiment. In relation to the mean of each of the variables, the highest mean was for the variable referring to the fact the test beverage had a similar taste to another consumed in the past ($M=3.677$; $\sigma=1.3494$). The second highest mean was for the variable on the participants' opinion on the beverage's taste ($M=3.188$; $\sigma=0.9767$). No other variable analyzed had an average higher than 3: the frequency of consumption variable had a mean of $M=2.302$, with standard deviation of $\sigma=0.985$; for participant's experience in solving anagrams the results were $M=2.3542$ and $\sigma=0.96222$; and for perception of the skill and knowledge for solving anagrams, the results were $M=2.719$ and $\sigma=0.8790$.

Besides this, we observed that the frequency of consumption ($F(1.92)=0.540$; $p=0.464$), opinion on the drink's taste ($F(1.92)=0.768$; $p=0.383$), the similarity of the drink's taste to another similar product consumed in the past ($F(1.92)=1.369$; $p=0.245$), and participant's experience in solving anagrams ($F=(1.92)=1.829$; $p=0.180$) were not covariables, since their inclusion in an analysis of covariance (ANCOVA) demonstrated that these variables did not have a significant control effect on the variations of the dependent variable.

On the other hand, the variable related to participant's perception of skill and knowledge for solving anagrams was a covariable, presenting $F(1.92)=8.565$; $p=0.004$, so it was included in the final model for analysis. Furthermore, by means of ANOVA with the LSD post-hoc test, we observed that the covariable did not differ among the groups ($M_{groupNI}=2.724$; $M_{groupNS}=2.617$; $M_{groupPS}=2.818$; $F(2.93)=0.431$; $p=0.651$).

To test the effects of the manipulation, we applied ANCOVA (Table 1), with the country of origin being the factor, the number of anagrams solved the dependent variable and perception of skill and knowledge for solving anagrams the covariable.

As can be observed in Table 1, the manipulation of the country of origin had a significant effect on the number of anagrams solved by the participants (F(2.92)=3.252; p=0.043). The size of the effect according to the partial Eta-squared value showed that 6.6% of the variance of the dependent variable (number of anagrams solved) was due to the influence of the independent variable (product's country of origin).

Table 1 - Effect of the Country-of-Origin Manipulation on Number of Anagrams Solved

Dependent variable: anagrams solved

[illegible]	Type III sum of squares	Degrees of freedom	Mean square	F	Significance	Partial Eta-squared
Corrected model	413.108[a]	3	137.703	5.518	0.002	0.152
Intercept	1036.604	1	1036.604	41.539	0.000	0.311
Skill and knowledge	213.728	1	213.728	8.565	0.004	0.085
Country	162.297	2	81.149	3.252	0.043	0.066
Error	2295.850	92	24.995			
Total	25464.000	96				
Corrected total	2708.958	95				

a. R^2=0.152 (adjusted R^2 = 0.125).

Source: Research data (2013)

We also identified that the participants who received the information that the country of origin was China (negative stereotype, group NS, M=13.644) solved fewer anagrams than the participants who were told the country of origin was the United States (positive stereotype, group PS, M=16.527). There was a difference of means of -2.883 anagrams, with p=0.021 (Table 2 and Figure 2).

Table 2 - Comparisons Between the Means of the Groups

Dependent variable: anagrams solved

Group I	Group II	Difference of means	Standard error	Significance
[illegible]	NS	2.883	1.226	0.21
	NI	0.363	1.273	0.776
[illegible]	PS	-2.883	1.226	0.21
	NI	-2.519	1.264	0.049
[illegible]	PS	-0.363	1.273	0.776
	NS	2.519	1.264	0.049

Source: Research data (2013).

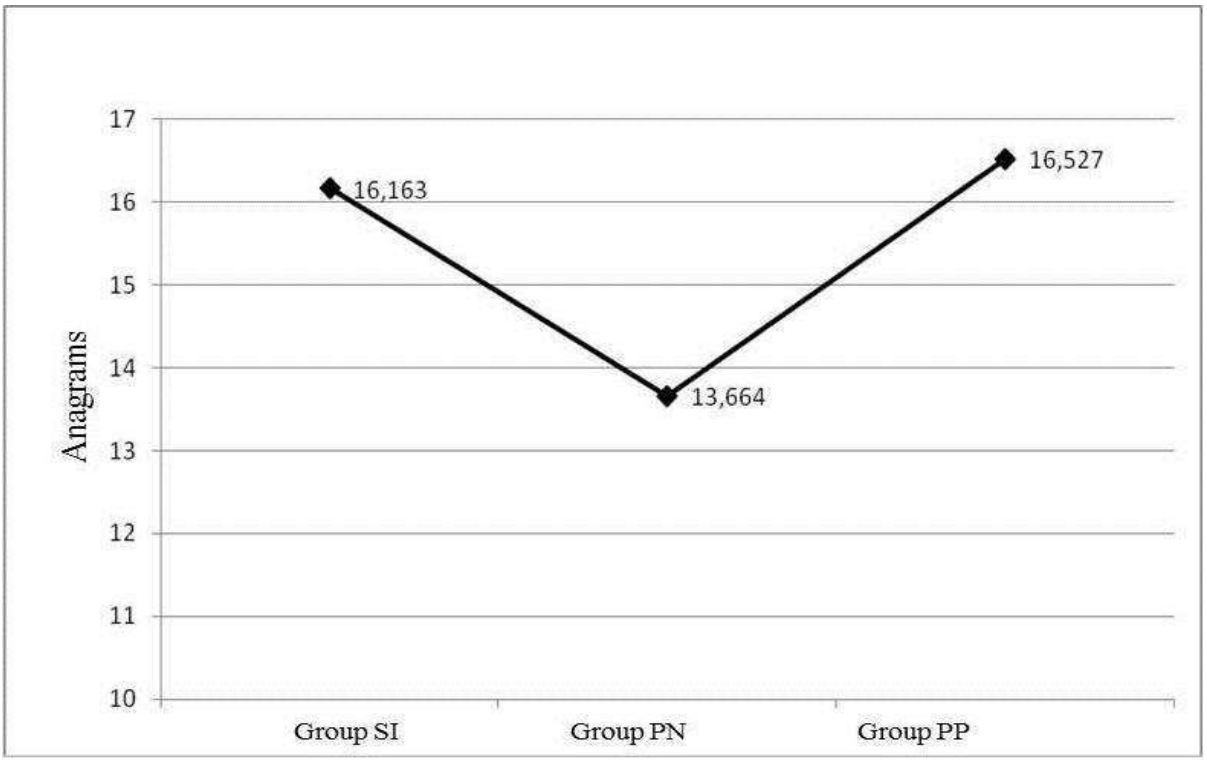

Figure 2 - Number of Anagrams Solved by Group
Source: Research data (2013).

Besides this, we found that the participants of group NS solved fewer anagrams than the participants of the group that did not receive any country information (group NI, M=16.163). The difference in the mean between these two groups was -2.519 anagrams, with p=0.049. According to Cohen's *d*, the negative effect of the country of origin in relation to the control (without information on the product's country of origin) was d=0.467, considered a medium size effect. On the other hand, even though the participants of group PS solved more anagrams than those in group NI, the difference in means of only 0.363 was not significant, with p=0.776. So, only the group that was told the energy drink was made in a country with negative stereotype performed worse than the other two groups, thus just confirming hypothesis H1b, in turn only partially confirming hypothesis H1.

5 DISCUSSION OF THE RESULTS

The results call attention to the importance of the country of origin's stereotype on the creation of expectations regarding the product's efficacy, with a consequent placebo effect on its performance. Analogously to the negative placebo effect generated by low price in the study of Shiv, Carmon and Ariely (2005a), we found that the negative stereotype of the country of origin generated a negative effect on the product's performance. According to Maheswaran (1994), this occurrence can be explained by the fact that consumers rely on the

stereotype of the country of origin to generate their expectations about what will be consumed, triggering a negative placebo effect.

Therefore, our main hypothesis, that the country of origin can cause a placebo effect on the real performance of a product, was partially confirmed, because hypothesis H1a, positing the ability of the country of origin with positive stereotype to trigger a positive placebo effect on the product's performance, was not confirmed. The group that was told the product came from the United States did not solve a significantly larger number of anagrams on average than the control group. On the other hand, hypothesis H1b, involving the ability of the country of origin with negative stereotype to cause a negative placebo effect, was confirmed, since when compared with the members of the control group, the participants who were told the product came from China solved a significantly lower number of anagrams on average than those who were not informed of the country of origin.

Therefore, our results show the ability of a country's stereotype to modify the real performance of a product, but only for countries with negative stereotype, since "Made in China" contributed to worse performance of the product, while "Made in USA" was not able to improve the performance significantly.

Another element that deserves emphasis is the fact that the participants' perception of their skill and knowledge to solve anagrams was a covariable in the model. This finds resonance in the studies of Shiv, Carmon and Ariely (2005a; 2005b), since individual factors such as self-efficacy can affect beliefs activated by external factors (in this case, the fact of knowing the product's country of origin), and influence the placebo effect.

6 FINAL CONSIDERATIONS

From a managerial perspective, our results show that differences in products' performance can occur in function of origin, especially when made in countries with negative stereotypes. Therefore, by understanding the dynamics of how consumers respond to information related to a country, managers can make more informed decisions about the risks and benefits of composing their mix of products with imported goods and also of establishing factories in different parts of the world.

We should mention a limitation regarding the way the country of origin was reported to the participants. They received a card revealing the country of origin along with other information about the product. It is probable that this information did not produce the same effect as affixing "Made in *"* on the packages, especially because according to Hong and

Wyer (1990), the way that a country's reputation can influence the perception of a product depends on the way the additional information is noted and processed by the consumer. When a consumer receives information about the country of origin first, the tendency is for this person to show less interest in other attributes of the product. Therefore, the attributes of a product will tend to have greater impact on consumers' judgment when inserted after the information on the country of origin.

Since in this study the information about the product's composition was conveyed to the participants together with identification of its origin, future studies can investigate the occurrence of a placebo effect of the country of origin by varying the moment when the origin information is given (before or after the information on the product's benefits). Besides this, future research could more thoroughly investigate the possible moderating elements of the placebo effect of the country of origin, such as the information and language on the packages (CHAO, 1998), as well as their esthetic features (HONEA; HORSKY, 2012).

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