An Assessment of the consumer ethnocentric scale (CETSCALE): evidences from Brazil

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ABSTRACT
The primary objective of this work is to identify if consumers in São Paulo have ethnocentric tendencies. Secondly, the CETSCALE within the Brazilian context is analyzed. The work presents a literature review of the concept of ethnocentrism. A descriptive quantitative methodology was employed and two databases were obtained, one comprised of 275 and another of 200 respondents from the city of São Paulo. The instrument used for data collection was a structured questionnaire with closed questions. The main findings refer to moderately ethnocentric samples – when compared with studies carried out in other countries – in all of the related demographic variables. Analyses indicated that there are differences between the level of consumers’ ethnocentrism when they are segregated into groups by age and different economic classes. The lowest socio-economic classes are significantly more ethnocentric than the upper socio-economic class. Among the lower classes the older people have the highest scores for ethnocentrism. Concluding remarks are presented, with some implications and recommendations for future research.

Key words: Ethnocentrism; consumer behavior; CETSCALE; marketing.
1. INTRODUCTION

Globalization seems to bear all the promise of a democratic and united world, but on the other hand this scenario can be credited with an irrecoverable loss of identity. Cultural circulation on a global scale ended up coining a term – the globalization of culture – which triggers contrasting reactions (WARNIER, 2003). Since the 1970s, global reach and integration have increased, leading to an acceleration in the flows between nations and the ties that exist between them. As a result this has led to at least three possible consequences: 1) the disintegration of national identities as a result of cultural homogenization; 2) the reinforcing of national and local identities as a result of resistance and globalization, and finally, 3) the decline in national identities and the emergence of new hybrid identities (HALL, 2005).

In such context, the concept of ethnocentrism has gained attention. According to Cuche (2002), the term is associated with prejudice and often as condemned as racism. The same author says that ethnocentrism is a normal sociological phenomenon, the function of which is to protect the existence of collectivity, and can be seen as a form of group defense. However, it may assume extreme forms of cultural, religious and political intolerance, or assume subtle and rational forms (CUCHE, 2002). In an attempt to protect its own identity the ethnocentric attitude aims to keep things as they are. Beliefs and practices tend to persist not because they are good, but merely because they tend to function well and so do not arouse the need for change (EDGERTON, 2002). Bizumic and Duckitt (2008, p. 438) identify six different expressions of this sense of group: intergroups expressions (group preference, superiority, purity and exploitativeness) and intragroups expressions (cohesion and devotion).

Consumer ethnocentrism is a very traditional theme in literature dealing with international management, especially in the marketing area, and is an application of the ethnocentric construct to the economic sphere (SHIMP; SHARMA, 1987), inheriting assumptions and properties from the original construct (BALABANIS; MUELLER; BELEWAR, 2002). This work has two objectives: its first and main one is to observe if there is any ethnocentric tendency in the various social and economic layers, age and genders in São Paulo, since literature indicates that the demographic variables of the consumer have an influence on a person’s degree of ethnocentrism (SHARMA; SHIMP;
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SHIN, 1995). The second objective is to analyze the Cetscale in a Brazilian context, via a research that was carried out in São Paulo. Despite being a scale that has been widely used for more than 20 years we found only one article published in peer reviewed academic journals using the scale (STREHLAU, PONCHIO; RIEGEL, 2010).

2. THEORETICAL REFERENCES

There seems to be consensus that the term ethnocentrism first appeared in 1906 when Sumner (1906) observed that people have a tendency to like their own group (the endogroup) and not competitor or opponent groups (the exogroup). He called this tendency to consider one’s own group as being at the center of everything and superior to other groups as ethnocentrism (MICHENER; DELAMATER; MYERS, 2005).

But culture diversity, the result of relations between societies, rarely seemed to be an acceptable phenomenon to man; on the contrary, when man faces an unexpected situation he summarily repudiates “any cultural, moral, social or esthetic forms that are divorced from those with which we identify” (LEVI-STRAUSS, 1996, p. 17). A counter-position to ethnocentrism is the idea of cultural relativism, which means “not transforming difference into hierarchy, into superior and inferior or good and evil, but seeing it as a dimension of richness precisely because it is different” (ROCHA, 2000, p. 20, our translation). The concern of the anthropologist, therefore, is to reduce this effect in his observations and work. But for people in general this may not be a central concern, which is why there is an interest in understanding one consumer relative to another, translated in the shape of the artifacts and brands of other cultures.

Ethnocentrism has its equivalent at the psychological level – authoritarianism, in which the focus of analysis is the individual and not the group (LEITE, 2002, p. 26) and where the authoritarian personality is characterized by the negative judgment of the foreign group, attributing to it all the bad qualities and all the good ones to his own group. For Rocha (2000, p. 75, our translation), ethnocentrism is based on “strong feelings, such as reinforcing the identity of the ‘ego’”. The author continues by arguing that this “fits in with the logic of progress, with the ideology of conquest, with the desire for riches and with a belief in a lifestyle that excludes difference”.

The ethnocentrism concept can be seen as a general view of social differences, but it is different from other types of animosity because of its general nature. This being so, ethnocentrism includes both cognition as well as affection; it is not just a question of
judgment or intellectual reasoning because it involves both positive and negative emotions (KAM; KINDER, 2007).

When dealing with consumer behavior, Mooij (2004, p. 120) defines ethnocentrism as a preference for products and brands from one's own country to the products and brands of other countries. Matsumoto (1996, p. 146) defines the term as being the “tendency to see the world through one’s own cultural filters”. Shimp and Sharma (1987) defined ethnocentrism as an individual tendency to see products manufactured domestically as being superior and as the belief that it is not very patriotic and even immoral to buy foreign products because of the consequences that this generates for the economy and employment.

In the field of strategy, ethnocentrism appears as an explicit variable in studies on cultural diversity, as an element of strategic change (FRENCH, 2005) in the relationship between institutions, ethnocentrism and national choices (KYRIACOU, 2005), as a variable in the spreading of knowledge from the perspective of institutional theory (KAMOCHE; HARVEY, 2006), in the relationship between the performance of multinational corporations and people (RICHARDS, 2001) and in cultural resistance when dealing with strategic alliances (MARREWIJK, 2004).

In the field of consumption, historically the first article found that uses the concept of ethnocentrism was written by Li and Liu in 1975. The authors compared the ethnocentric attitudes of young Americans and Chinese based on a research carried out with students in the two countries. In the United States the aim was to understand how North Americans stereotyped the Chinese and themselves and in China vice versa. Over the last ten years 48 articles using this concept have been identified in international journals (taken from the EBSCO and Emerald databases); they have been fairly regular in their distribution at four articles a year, on average.

In Brazil, only one article has been found that used ethnocentrism in the management area in peer reviewed journals (STREHLAU, PONCHIO; RIEGEL, 2010). Besides this paper there have also been five references in national journals, but all related to themes in the areas of education (GONÇALVES; SILVA, 2003; OLIVEIRA; MIRANDA, 2004; DUARTE, 2006), social sciences with a focus on racial studies (HANCHARD, 2002; OLIVEIRA; MIRANDA, 2004), or psychology with a focus on the family (SARTI, 2004).

The influence of ethnocentrism in the preference for products and brands was studied by Nguyen, Nguyen and Barret (2008), Upadhyay and Singh (2006), Supphellen...
and Gronhaug (2003), Acharya and Elliott (2003), O’Cass and Lim (2002), Watson and Wright (2000), Kaynak and Kara (2001), Pecotich and Rosenthal (2001), Supphellen and Rittenburg (2001), and by Huddleston et al. (2001). The preference for imported brands was the focus of the study by Klein, Ettenson and Krishnan (2006). The “country brand” and the “country of origin effect” were the subject of studies by Bawa (2004), Mittelstaedt et al. (2004), Kaynak and Kara (2002), Pecotich and Rosenthal (2001), Yagci (2001), Ueltschy (1998), Wong, Polonsky and Garma (2008), and Chryssochoidis et al. (2007). Recently there has been an increasing number of papers using this concept to analyse different groups within a country, such as different regional groups (HSU; HAN-PENG, 2008), bicultural consumers (ZOLFAGHARIAN; SUN, 2010) or immigrants and natives (POON; EVANGELISTA; ALBAUM, 2010).

In the sphere of consumer behavior, “information processing” was the focus of studies by Moon and Jain (2001) and Orth and Firbasova (2002). Other individual variables relating to ethnocentrism have been studied, such as intention to buy (YELKUR; CHAKRABARTY; BANDYOPADHYAY, 2006), materialism and cosmopolitanism (CLEVELAND; LAROCHE; PAPADOPOULOS, 2009), patriotism and nationalism (BALABANIS et al., 2002; LEE; HONG; LEE, 2003; BAWA, 2004; TOHARUDIN; OUD; BILLIET, 2008), lifestyle (KAYNAK; KARA, 2001; SPILLAN et al., 2007), ethnic affiliation (VIDA; DMITROVIC; OBADIA, 2008), group perception (RADEN, 2003) and cultural orientation (YOO; DONTHU, 2005).

Various papers have been dedicated to understand ethnocentrism in different countries. The United States is the most studied country, but there are also studies relating to Spain (LUQUE-MARTINEZ; IBANEZ-ZAPATA; BARRIO-GARCIA, 2000), Germany (EVANSCHITZKY et al., 2008), Poland (HUDDLESTON; GOOD; STOEL, 2001; SIEMIENIAKO et al., 2011), Slovakia (SAFFU; WALKER; MAZUREK, 2010), Russia (HUDDLESTON; GOODSTOEI, 2002; SAFFU; WALKER, 2005), and other countries of the former Soviet Union, like Azerbaijan and Kirgizstan (KAYNAK; KARA, 2001). In the Far East there have been studies on Vietnam (NGUYEN; NGUYEN; BARRET, 2008), China, India and Taiwan (PEREIRA; HSU; KUNDU, 2002), South Korea (LEE; SIRGY, 2000), New Zealand and Singapore (DURVASULA; LYSONSKI, 2006), Indonesia (HAMIN; ELLIOTT, 2006) and Australia (POON; EVANGELISTA; ALBAUM, 2010). We also found studies referring to Canada (SAFFU; WALKER, 2005), Israel (SHOHAM; BRENICK, 2003), Turkey (ALTINTAS; TOKOL, 2007; ERDOGAN;
TURKEY; UZKUR, 2010) and Iran (BAHAEE; PISANI, 2009). In South America we only found information about Peru (SPILLAN et al., 2007).

Sharma, Shimp and Shin (1995) discussed the antecedents and conditions under which consumer ethnocentrism operates. Previous studies indicate that both antecedents and results differ as a function of different national contexts and also between developed and developing economies (WANG; CHEN, 2004; REARDON et al., 2005). In a recent theoretical survey of the area, Shankarmahesh (2006) identified four major factor categories that underlie ethnocentrism: social-psychological, political, economic and demographic. As a result he developed an explanatory scheme and discriminated the various antecedents underlying the ethnocentric tendency. Other antecedents found include patriotism, openness to foreign cultures, collectivism/individualism and conservatism. Other possible antecedents have also received attention; according to Kam and Kinder (2007), ethnocentrism varies in accordance with circumstances; for example the behavior of Americans before and after the terrorist attacks. Durvasula and Lyonski (2006) also highlight the importance of the economic threat in the decision to buy imported products.

3. METHODOLOGICAL PROCEDURES

This work includes two quantitative survey-type data collections. The first data set was obtained by means of a structured questionnaire with closed questions. It was applied personally in August, September and October, 2008 in public environments, such as companies, stores and schools in the city of Sao Paulo. Respondents were chosen on a basis of their willingness to participate in the study; the non-probabilistic sample was comprised of 275 individuals. The second data set was obtained in February and March, 2010 in public environments such as universities, schools and stores in the same city and was comprised of 200 individuals.

The questionnaire of the first data set included questions of a demographic nature, such as gender, age and socio-economic class. The latter was measured using the Brazil Economic Classification Criteria (CCEB), which divides the population into five socio-economic classes (A, B, C, D and E) according to the points awarded for the possession of certain goods and the level of education of the head of the family as a proxy to access income. To measure the ethnocentric tendencies of the consumer we used the Cetscale, developed by Shimp and Sharma (1987). The scale consists of 17 items, evaluated on the 7 point Likert scale, where 1 represents “I totally disagree” and 7 represents “I totally agree”. The results were presented using the summed scale, which is fairly usual in papers that use...
the Cetscale. The scale was originally developed for use with North American consumers, but Netemayer, Durvasula and Lichtenstein (1991), in a subsequent study, validated the scale in the United States, Germany, France and Japan, with Cronbach’s alpha varying between 0.91 and 0.95, and suggesting the nomological validity of the scale.

The original questionnaire in English was translated into Portuguese. In line with other studies that used the scale and as indicated in a study carried out by Luthy (2007), who assessed the role of language when applying the scale, respondents found no difficulty in understanding it. Reverse translation procedures returned the translated scale to its original version.

Exploratory data analysis (such as exploratory factor analysis, ANOVA and decision tree) was conducted in the first data set. The relationships among variables identified could be tested to see whether they hold true using the second data set. Both procedures are described in the next section.

4. THE RESEARCH

In the first section, the exploratory results obtained from the first data set are presented. In section 4.2 the second data set is analysed in order to check the consistency of the results found in the exploratory analyses conducted.

4.1 EXPLORATORY ANALYSES – FIRST DATA SET

Among the 275 respondents in the first data set, 145 (52.7%) were male and 130 (47.3%) female. Their ages ranged between 15 and 49. By applying the Brazil Economic Classification Criterion (CCEB), the respondents were also grouped according to the following socio-economic classes: A1, A2, B1, B2, C1 and C2. Table 1 gives a summary of this information.
Table 1 – Descriptive statistics of the sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample total (%)</th>
<th>Male (%)</th>
<th>Female (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 to 19</td>
<td>57 (20.7)</td>
<td>35 (24.1)</td>
<td>22 (16.9)</td>
</tr>
<tr>
<td>20 to 29</td>
<td>141 (51.3)</td>
<td>65 (44.9)</td>
<td>76 (58.5)</td>
</tr>
<tr>
<td>30 to 39</td>
<td>45 (16.4)</td>
<td>28 (19.3)</td>
<td>17 (13.1)</td>
</tr>
<tr>
<td>40 to 49</td>
<td>32 (11.6)</td>
<td>17 (11.7)</td>
<td>15 (11.5)</td>
</tr>
</tbody>
</table>

Economic Class

<table>
<thead>
<tr>
<th>Economic Class</th>
<th>Sample total (%)</th>
<th>Male (%)</th>
<th>Female (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>25 (9.1)</td>
<td>11 (7.6)</td>
<td>14 (10.8)</td>
</tr>
<tr>
<td>A2</td>
<td>25 (9.1)</td>
<td>13 (9.0)</td>
<td>12 (9.2)</td>
</tr>
<tr>
<td>B1</td>
<td>31 (11.3)</td>
<td>20 (13.8)</td>
<td>11 (8.5)</td>
</tr>
<tr>
<td>B2</td>
<td>76 (27.6)</td>
<td>45 (31.0)</td>
<td>31 (23.8)</td>
</tr>
<tr>
<td>C1</td>
<td>53 (19.3)</td>
<td>27 (18.6)</td>
<td>26 (20.0)</td>
</tr>
<tr>
<td>C2</td>
<td>65 (23.6)</td>
<td>29 (20.0)</td>
<td>36 (27.7)</td>
</tr>
</tbody>
</table>

Source: prepared by the authors.

Respondents in the 20 to 29 year age band predominate (average age 26.9). With regard to their socio-economic class there was a slight concentration of Classes C1 and C2 (together they represented 42.9% of the respondents); 38.9% of the respondents were in Classes B1 and B2 and the remaining 18.2% were from Classes A1 and A2.

The ethnocentrism score was defined as the sum of the responses to the 17 items measured on a 7 point Likert scale (varying from 1 – “I totally disagree” to 7 – “I totally agree”). Graph 1 shows the distribution of this variable.

The average ethnocentrism score was 61.28, with a standard deviation of 23.94; the minimum was 18 and the maximum 119, which is normal in work that uses the scale. By way of comparison, the average ethnocentrism score in the sample was in line with the interval observed in various other countries, such as 48.61 in Canada, 53.45 in Russia.
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(SAFFU; WALKER, 2005) and 85.07 in South Korea (SHARMA; SHIMP; SHIN, 1995).

In the United States the Shimp and Sharma (1987) study came up with a variation between 56.63 in Los Angeles and 68.58 in Detroit.

Shankarmahesh (2006) points out that the demographic characteristics of the respondents comprise a separate group in the study of antecedents. Even though Balabanis, Mueller and Belewar (2002) indicate that most of the antecedents of consumer ethnocentrism have focused on demographic differences, no research with this particular focus was found in Brazil. With regard to gender, we expected to find some difference, because previous studies have shown that women tend to be more ethnocentric than men (SHARMA; SHIMP; SHIN, 1995; BRUNING, 1997). But in this study we saw no difference in the distribution of this variable as a function of gender, which is in line with what Hopkins and Powers (2007), Caruana and Magri (1996) and Nielsen and Spence (1997) found.

Sharma, Shimp and Shin (1995) and Bruning (1997) indicated a negative correlation between income and ethnocentrism, because as income increases the possibilities of traveling and developing a greater degree of cosmopolitanism also increase, which leads to a reduction in ethnocentric tendencies. In this study we found relationships between consumer ethnocentrism and socio-economic class (see Table 2 and Graph 2). Although the ‘Brazil criterion’ does not specifically measure income it was considered a suitable substitute.

Table 2 – ANOVA – ethnocentrism score compared with socio-economic class

<table>
<thead>
<tr>
<th>Group</th>
<th>Count</th>
<th>Mean</th>
<th>Standard-deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>25</td>
<td>28.64</td>
<td>6.76</td>
</tr>
<tr>
<td>A2</td>
<td>25</td>
<td>48.24</td>
<td>20.22</td>
</tr>
<tr>
<td>B1</td>
<td>31</td>
<td>57.52</td>
<td>26.84</td>
</tr>
<tr>
<td>B2</td>
<td>76</td>
<td>66.50</td>
<td>19.65</td>
</tr>
<tr>
<td>C1</td>
<td>53</td>
<td>69.21</td>
<td>20.19</td>
</tr>
<tr>
<td>C2</td>
<td>65</td>
<td>68.09</td>
<td>23.25</td>
</tr>
</tbody>
</table>

ANOVA

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>39,742.65</td>
<td>5</td>
<td>7,948.53</td>
<td>18.23</td>
<td>0.000</td>
</tr>
<tr>
<td>Within groups</td>
<td>117,261.23</td>
<td>269</td>
<td>435.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>157,003.88</td>
<td>274</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: prepared by the authors.
Finally, we also found a relationship between ethnocentrism and age (see Table 3 and Graph 3), which was in line with the argument that the positive relationship between age and the ethnocentric tendencies of the consumer is based on the growing cosmopolitanism of recent years and the influence of young people on belief patterns (BALABANIS; MUELLER; MELEWAR, 2002).

### Table 3 – ANOVA – ethnocentrism score compared with age

<table>
<thead>
<tr>
<th>Group</th>
<th>Cont</th>
<th>Mean</th>
<th>Standard-deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 to 19 years old</td>
<td>57</td>
<td>61.19</td>
<td>21.27</td>
</tr>
<tr>
<td>20 to 29 years old</td>
<td>141</td>
<td>57.36</td>
<td>25.21</td>
</tr>
<tr>
<td>30 to 39 years old</td>
<td>45</td>
<td>65.87</td>
<td>23.34</td>
</tr>
<tr>
<td>40 to 49 years old</td>
<td>32</td>
<td>72.28</td>
<td>19.47</td>
</tr>
</tbody>
</table>

### ANOVA

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>6,984.78</td>
<td>3</td>
<td>2,328.26</td>
<td>4.206</td>
<td>0.006</td>
</tr>
<tr>
<td>Within groups</td>
<td>150,019.10</td>
<td>271</td>
<td>553.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>157,003.88</td>
<td>274</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Prepared by the authors.
In trying to classify the respondents in terms of their ethnocentrism score, the decision tree method was used. The tree was constituted using the CHAID (Chi-squared Automatic Interaction Detector) algorithm, with a significance level in splitting nodes of 0.05 and merging categories of 0.05, also. The decision tree method divides a set of explanatory independent variables into mutually exclusive subsets, in order to find the best way of describing the behavior of the dependent variable (HILL; LEWICKI, 2006). The sub-groups are once more tested relative to other explanatory variables until they become small or the tests are no longer significant. The dependent variable selected for the analysis was the ethnocentrism score. Figure 1 shows the results.

![Classification Tree](image)

FIGURE 1 – CLASSIFICATION TREE – ETHNOCENTRISM SCORE AS THE DEPENDENT VARIABLE
**Source:** Prepared by the authors with use of SPSS 17.0

The first node includes 25 respondents, the second includes a little over 20% of the sample (56 respondents) and finally the largest node is the third with 194 respondents, divided into two sub-groups: one with the people over 29 who represent the greatest ethnocentric tendency and includes 59 respondents, and the second group with respondents of 29 or less, with 135 people.

Analysis of Figure 1 allows us to make the following statements:

a) The socio-economic class variable is useful for differentiating the respondents based on their ethnocentrism score: respondents from socio-economic Class A1 have an
average ethnocentrism of 28.64, with a standard deviation of 6.76; respondents from socio-economic Classes A2 and B1 have an average ethnocentrism of 53.38, with standard deviation of 24.35 and finally respondents from Classes B2, C1 and C2 have an average ethnocentrism of 67.77, with a standard deviation of 20.98. The lowest socio-economic classes, therefore, have the highest ethnocentrism score.

b) Among the respondents belonging to the lowest socio-economic classes – B2, C1 and C2 (node 3), older people have a higher score in ethnocentrism (nodes 4 and 5). The sub-group of those over 29 belonging to socio-economic Classes B2, C1 and C2 is, therefore, the one that has the highest level of ethnocentrism – average of 74.36, with a standard deviation of 16.58.

Several studies assume that all 17 items used are measuring the same construct and a summative measure may be used to represent the ethnocentrism score of the respondents, such as Kaynak and Kara (2001; 2002), Huddleston, Good and Stoel (2000; 2001), Moon and Janin (2001), Yoo and Donthu (2005), Wang and Chen (2004), Lee and Sirgy (2003), Shoham and Brencic (2003), Hamin and Elliot (2006), Wong, Polonski and Garma (2008), Luthy (2007), and Spillan et al. (2007). Table 4 shows a comparison of variance explained and the dimensionability of the Cetscale.
In this research the exploratory factor analysis technique was applied to items on the ethnocentrism scale, so that the dimensions of this construct could be identified. We used the main components extraction method. The appropriateness of the correlations matrix for factoring was evaluated by means of the KMO sampling adequacy measure test (0.933) and Bartlett’s sphericity test (significant); both tests returned adequate values for conducting the factor analysis procedure (NUNNALLY, 1978).

<table>
<thead>
<tr>
<th>Author</th>
<th>Country</th>
<th>Reported dimensions</th>
<th>Variance explained</th>
<th>Mean (ethnocentrism construct)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Khan and Rizvi (2008)</td>
<td>India</td>
<td>4</td>
<td>59.98</td>
<td>61.43</td>
</tr>
<tr>
<td>Chryssochoidis, Krystallis and Perreas (2007)</td>
<td>Greece</td>
<td>2 (hard ethnocentrism and soft ethnocentrism)</td>
<td>63.03</td>
<td>65.45</td>
</tr>
<tr>
<td>Saffu and Walker (2005)</td>
<td>Canada and Russia</td>
<td>Canada – 1</td>
<td>Russia – 83.07</td>
<td>Russia – 48.61</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Russia – 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bawa (2004)</td>
<td>India</td>
<td>3 for two respondent groups: materials management professionals and university students, 4 for senior secondary school students</td>
<td>62.8</td>
<td>55.24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>University students – 46.2 (university students)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 – 38.3 (secondary school students)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acharya and Elliott (2003)</td>
<td>Australia</td>
<td>2 (emotional consumer ethnocentrism and rational consumer ethnocentrism)</td>
<td>62.5</td>
<td>56.31</td>
</tr>
<tr>
<td>Lee and Sirgy (2003)</td>
<td>USA</td>
<td>1 (after deleting 3 items)</td>
<td></td>
<td>43.01</td>
</tr>
<tr>
<td>Orth and Firbasova (2003)</td>
<td>Czech Republic</td>
<td>1</td>
<td>66.2</td>
<td></td>
</tr>
<tr>
<td>O’Cass and Lim (2002)</td>
<td>Singapore</td>
<td>2 (protectionism and conservatism)</td>
<td></td>
<td>38.25</td>
</tr>
<tr>
<td>Pereira, Hsu and Kundu (2002)</td>
<td>China, India and Taiwan</td>
<td>1</td>
<td>China – 42</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>India – 51</td>
<td>Taiwan – 45</td>
<td></td>
</tr>
<tr>
<td>Caruana and Magri (1996)</td>
<td>Malta</td>
<td>2</td>
<td>58.4</td>
<td>56.8</td>
</tr>
<tr>
<td>Shimp and Sharma (1987)</td>
<td>USA</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saffu, Walker and Mazurek (2010)</td>
<td>Slovakia</td>
<td></td>
<td></td>
<td>Non-student – 63.61, Student – 65.80</td>
</tr>
</tbody>
</table>
Three factors were extracted that explain 75.43% of the accumulated variance. By applying the varimax rotation we were able to interpret the three orthogonal factors we called: 1) Trade; 2) Country preference; 3) Employment. Table 5 shows the factor loadings for each of the items.

Table 5 – Factor matrix - Ethnocentrism

<table>
<thead>
<tr>
<th>Factor 1: Trade</th>
<th>Factor 2: Country preference</th>
<th>Factor 3: Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreigners should not be allowed to put their products on our markets.</td>
<td>0.809</td>
<td></td>
</tr>
<tr>
<td>Foreign products should be taxed heavily to reduce their entry into Brazil.</td>
<td>0.784</td>
<td></td>
</tr>
<tr>
<td>There should be very little trading or purchasing of goods from other countries unless out of necessity</td>
<td>0.772</td>
<td></td>
</tr>
<tr>
<td>Only those products that are unavailable in Brazil should be imported.</td>
<td>0.765</td>
<td></td>
</tr>
<tr>
<td>Curbs should be put on all imports.</td>
<td>0.756</td>
<td></td>
</tr>
<tr>
<td>Brazilian people should always buy Brazilian-made products instead of imports.</td>
<td>0.704</td>
<td></td>
</tr>
<tr>
<td>It is always best to purchase Brazilian products.</td>
<td>0.800</td>
<td></td>
</tr>
<tr>
<td>We should purchase products manufactured in Brazil instead of letting other countries get rich off us.</td>
<td>0.793</td>
<td></td>
</tr>
<tr>
<td>Buy Brazilian-made products. Keep Brazil working.</td>
<td>0.781</td>
<td></td>
</tr>
<tr>
<td>It may cost me in the long-run but I prefer to support Brazilian products.</td>
<td>0.734</td>
<td></td>
</tr>
<tr>
<td>Brazilian products first, last, and foremost.</td>
<td>0.706</td>
<td></td>
</tr>
<tr>
<td>A real Brazilian should always buy Brazilian-made products.</td>
<td>0.689</td>
<td></td>
</tr>
<tr>
<td>Brazilian consumers who purchase products made in other countries are responsible for putting their fellow Brazilians out of work.</td>
<td>0.840</td>
<td></td>
</tr>
<tr>
<td>Purchasing foreign-made products is un-Brazilian.</td>
<td>0.791</td>
<td></td>
</tr>
<tr>
<td>It is not right to purchase foreign products, because it puts Brazilians out of jobs.</td>
<td>0.748</td>
<td></td>
</tr>
<tr>
<td>Brazilians should not buy foreign products, because this hurts Brazilian business and causes unemployment.</td>
<td>0.697</td>
<td></td>
</tr>
<tr>
<td>We should buy from foreign countries only those products that we cannot obtain within our own country.</td>
<td>0.627</td>
<td></td>
</tr>
</tbody>
</table>

Source: prepared by the authors with use of SPSS 17.0.

Only factor loadings greater than 0.500 were included in the table. The first factor grouped the assertions that were fundamentally related to trade, such as trade restrictions and the barriers the country should impose on foreign products. The second factor represents statements relating to country preference – in short, Brazilians should buy from Brazilians. Finally, the third and final factor represents the employment dimension, in
other words, buying foreign products would be reflected in a reduction in employment levels in the country.

4.2 VALIDATING ANALYSES – SECOND DATA SET

The version of the Cetscale used in the second database obtained (n = 200) was comprised of only 10 items instead of 17 (BRUNNER II; HENSEL, 1992). This is recommended when the questionnaire is long (as was the case) and/or data collection is expensive, if there is a short version of the scale available (for a detailed example of this procedure see Richins, 2004 and Ponchio and Aranha, 2008, papers that have addressed the measurement of the materialism construct with a full 15-item scale and a short 9-item scale).

The second data set served as a validating data set for this study. As pointed out by Pedhazur and Schmelkin (1991), external validating procedures should be pursued, especially in social sciences studies that have employed scales to measure underlying constructs such as ethnocentrism. Although both data sets are non probabilistic samples, we still consider this procedure will enrich the conclusions drawn by the study.

Among the 200 respondents, 95 (47.5%) were male and 105 (52.5%) female. Their ages ranged between 15 and 25. Due to the sampling procedure that was adopted, no variance was identified in the income variable – all respondents belong to high income families (A1, A2 or B1 socio-economic classes).

Graph 4 shows the distribution of the ethnocentrism score (because the construct was measured by 10 items in a 7-point Likert type scale, the total score may range from 10 to 70 points).

![GRAPH 4 – HISTOGRAM FOR THE ETHNOCENTRISM SCORE – DATABASE 2 (N = 200)](source: prepared by the authors.)
The average ethnocentrism score was 24.45, with a standard deviation of 12.83; the minimum was 10 and the maximum, 70. This is a non-ethnocentric group. The results are consistent to what was identified earlier being that the least ethnocentric group is the one comprised of higher income and younger individuals.

Given that the ethnocentrism score could range from 10 to 70, the mean score of 24.45 corresponds to \((24.45 - 10) / (70 - 10) = 24.08\%\) of how much ethnocentric the individual could indicate to be. When the same methodology is applied to the individuals from database I, it can be seen that the 72 (out of the 275) respondents aged between 15 and 25 and from the socio-economic classes A1, A2 and B1 have an average ethnocentrism score of 43.43 (out of 119). So, relatively speaking, respondents are \((43.43 - 17) / (119 - 17) = 25.9\%\) ‘ethnocentric’. At the 0.01 level, no statistical difference exists between both groups (sample 1 X sample 2) relative to the ethnocentrism score, which indicates consistency between field results.

It is important to highlight that no difference was found for the ethnocentrism score when gender was considered: among men, the average score was 24.71 and, among women, the average score was 24.15.

Nevertheless, new data collections, especially among different age and socio-economic groups, are recommended so that more evidence of consumer ethnocentrism can be gained.

5. FINAL CONSIDERATIONS

The intention of this work was to discuss the ethnocentric tendencies of consumers. A review of literature shows that women, older people and those with lower levels of income tend to give the highest scores when it comes to ethnocentrism. However, in this study this relation did not prove to be significant for the gender variable, although it was for the socio-economic class and age variables.

With regard to the ethnocentrism score the decision tree was responsible for classifying individuals from sample 1 according to socio-demographic variables. The differences between the averages of the three groups we identified are significant (A1: 28.64; A2 and B1: 53.38; and B2, C1 and C2: 67.77). The lower socio-economic classes have, therefore, a higher ethnocentrism score. A sub-group emerges from this group - individuals over 29; they have the highest level of ethnocentrism, an average of 74.36. Application of the Cetscale in São Paulo revealed good internal consistency of the scale and three dimensions for the ethnocentrism construct.
The second database analyzed (n = 200) helped strengthen what had already been shown in database 1: young and wealthy individuals from the city of Sao Paulo tend to be very little ethnocentric.

Future work on ethnocentrism may also explore intersections with strategy. Among the strategic implications are those where there is a strong interaction between people, such as in knowledge transfer, the management of diversity, the development of alliances and those that involve the strategist himself. Another possible application would be in differentiation strategies; working to increase the perceived value of Brazilian products and brands. In marketing it could be used in market segmentation exercises, according to how disposed (or otherwise) the market is to foreign products. However, for such purposes this study, with its focus on gender, age and economic class, is only an introduction to a much wider discussion; other demographic variables, such as race, income and education could also lead to meaningful results. Perhaps there is a curious lack of interest in seeing ourselves as extremely ethnocentric in some aspects, or the opposite, in seeing ourselves as not very ethnocentric at all in the normal sense of the word, believing that what is imported is almost always better, or what comes from outside Brazil, from other people, is better than what we produce here. The research indicates a moderately ethnocentric sample; studies should be continued in order to understand in what aspects this tendency manifests itself with greater or lesser intensity.

One important limitation is the fact that the research is based on samples obtained by convenience, thereby compromising generalizations. There is also the limitation that it was applied in just one city. For future studies we suggest that the scale be applied in other cities and regions in Brazil, because it is possible that differences exist, as they do in the United States, where the full Cetscale varies between 56.62 in Los Angeles and 68.58 in Detroit (SHIMP and SHARMA 1987). There are possibly also differences with regard to other demographic aspects, the antecedents of ethnocentrism or its consequences.

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