Intergroup Emotions, Perceived Threats and Hostility against Foreigners: Comparing Brazil, Portugal, and Spain

Abstract

This study analyzed whether hostility towards foreigners perceived as competitors in the labor market would be related to the perception of threat (symbolic and economic) and negative intergroup emotions. 270 people between 18 and 63 years participated. In Brazil (N = 89), mostly men (59%) and average age 32.5 years; In Portugal (N = 87), mostly men (56.3%) and average age 39.9 years; in Spain (N = 94), mostly women (53.2%) and average age of 32.8 years. The results (t-test, analysis of variance and multiple regressions) indicated that in Spain negative emotions are associated with less hostility.
towards immigrants; In Brazil, positive emotions are associated with hostile attitudes. In Portugal, the relationship between positive emotions and hostility is positive, but not significant. The symbolic threat was the best predictor of hostility only in the Brazilian sample. Positive emotions predispose to a greater kindness towards foreigners in the three countries. The main conclusion of the study is that the economic crisis does not seem to be associated with the perception of competitiveness of foreigners in the local labor market and hostility towards this social group.

**Keywords**: Immigration, comparative study, intergroup emotions, discrimination.

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**Emoções Intergrupais, Ameaças Percebidas e Hostilidade para com Estrangeiros: Comparando Brasil, Portugal e Espanha**

**Resumo**

O estudo analisou se a hostilidade para com estrangeiros percebidos como concorrentes no mercado de trabalho estaria relacionada com a percepção de ameaça (simbólica e econômica) e as emoções intergrupais negativas. Participaram 270 pessoas entre 18 e 63 anos, assim distribuídas: Brasil ($N = 89$), idade média de 32.5 anos, maioria de homens (59%); Portugal ($N = 87$), idade média de 39.9 anos, maioria de homens (56.3%); e Espanha ($N = 94$), idade média de 32.8 anos, maioria de mulheres (53.2%). Os resultados do Teste-$t$, análise da variância e regressões múltiplas indicaram que enquanto na Espanha emoções negativas se associam a menos hostilidade para com imigrantes, no Brasil é a expressão de emoções positivas que se encontra associada a tais atitudes hostis. Em Portugal a relação entre emoções positivas e hostilidade é positiva, mas não significativa. A ameaça simbólica foi o melhor preditor de hostilidade somente na amostra brasileira. Emoções positivas predizem maior amabilidade para com estrangeiros nas amostras dos três países. A principal conclusão do estudo é que a crise econômica não parece estar associada com a percepção de competitividade do estrangeiro no mercado de trabalho local e a hostilidade para com este grupo social.

**Palavras-chave**: Imigração, estudo comparativo, emoções intergrupais, discriminação.

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**Emociones Intergrupales, Amenazas Percibidas y Hostilidad contra Extranjeros: Comparando Brasil, Portugal y España**

**Resumen**

Este estudio analizó si la hostilidad hacia los extranjeros percibidos como competidores en el mercado de trabajo estaría relacionada con la percepción de amenaza (simbólica y económica) y las emociones intergrupales negativas. Participaron 270 personas entre 18 y 63 años. En Brasil ($N = 89$), mayoría de hombres (59%) y edad media 32.5 años; en Portugal ($N = 87$), mayoría de hombres (56.3%) y edad media 39.9 años; en España ($N = 94$), mayoría de mujeres (53.2%) y edad media de 32.8 años. Los resultados (test-$t$, análisis de la varianza y regresiones múltiples) indicaron que en España las emociones negativas se asocian a una menor hostilidad hacia los inmigrantes; en Brasil las emociones positivas están asociadas a actitudes hostiles. En Portugal la relación entre emociones positivas y hostilidad es positiva, pero no significativa. La amenaza simbólica fue el mejor predictor de hostilidad sólo en la muestra brasileña. Las emociones positivas predisponen a una mayor amabilidad hacia los extranjeros en los tres países. La principal conclusión del estudio es que la crisis económica no parece estar asociada a la percepción de competitividad de los extranjeros en el mercado laboral local y la hostilidad hacia este grupo social.

**Palabras clave**: Inmigración, estudio comparado, emociones intergrupales, discriminación.
The worldwide crisis and globalization have contributed to the current discussion about the phenomenon of migration across the world. Despite being a recurring theme, the contemporary scenario of changes in migration flows between countries brings new elements to the discussion on global migration (e.g., Boski, 2013; Cerrutti & Parrado, 2015; Collier, 2013; Hunter, Luna, & Norton, 2015), especially for the psychology of intergroup relationships. There are growing social demands for a better understanding of attitudes towards foreigners and taking action to reduce conflicts between immigrants and natives of the receiving countries. Among other topics of interest are the economic and social benefits for the countries that send immigrants (e.g., António & Policarpo, 2001; Mulvey, 2011), for the receiving countries, and also for the immigrants themselves (e.g., Wagner, Christ, & Heitmeyer, 2010).

Data released by the World Bank reveal the importance of economic migration for the countries of origin, whose remittances sent from abroad contribute to local socio-economic development (e.g., Portes, 2009). But, if on one hand, the migration processes contribute to the development of the countries in the hope of reducing economic inequalities, on the other, they bring internal consequences for the recipient country, particularly in times of economic crisis, in which the struggle to find jobs and for access to goods and services offered by these governments is associated with negative attitudes, prejudice, and discriminatory behavior against foreigners (e.g., Davidov & Meuleman, 2012; Facchini & Mayda, 2012; Gang, Rivera-Batiz, & Yun, 2013; Markaki & Longhi, 2012; Semyonov, Rajmian, & Gorodzeisky, 2006; Sniderman, Hagendoorn, & Prior, 2004).

In this sense, the primary objective of this study is to analyze to what extent the hostility in dealing with foreigners is related to perceived threat (symbolic and economic) and negative intergroup emotions of natives towards foreigners perceived as strong competitors in the job market. The second objective is to analyze whether the relationships of threat and intergroup emotions (positive and negative) with hostility and friendliness vary depending on the national context of three countries in different socio-economic situations. Data from 2012 released by the World Bank reveal that there are differences in the human development index of Portugal (HDI = 0.81), Brazil (HDI = 0.73), and Spain (HDI = 0.88). However, Spain and Portugal were more affected by the global financial crisis of 2008 than Brazil, since the latter has achieved significant economic growth in recent years, while the other two have experienced a reduction in economic activity. The main hypothesis to be tested in this study is that the impact of the threat on intergroup hostility will be greater in the two countries in crisis than in Brazil. Although this situation is changing since Brazil is facing a deep economic and political crisis, the study was made at the end of the economic cycle and the data presented corresponds to this specific period we are referring to. This study contributes to the explanation of intergroup relations, particularly in times of economic crisis and competition for scarce resources, highlighting the diversity among countries (Faist, 2016). In addition, it can help in social support policies for foreigners who migrate to work.

The Role of the Perceived Threat

There is a broad tradition of studies of the individual variables in explaining prejudice and hostility (e.g., Facchini & Mayda, 2012; Gang et al., 2013; Quillian, 1995). For example, self-interest theory postulates that people develop negative attitudes toward social categories with which they are in competition or in conflict, as in the case of competition for jobs. Similarly, a set of theories, known as theories of realistic conflicts of interest (e.g., Sherif, Harvey, White, Hood, & Sherif, 1961), has given little attention to the factors of an individual nature to highlight the role of conflicts of interest in discrimination. According to Levine and Campbell (1972), the two theoretical principles common to realistic conflict theories are to assume that the groups have incompatible goals and that they compete for scarce resources. Furthermore, intergroup hostility would increase in situations of greater conflict of interest, since each of the parties to
the conflict can only achieve their goals if they defeat the other party. In addition, these theories assume that conflicts of interest contribute to increased threat perception, making the occurrence of intergroup hostility more likely.

Accordingly, intergroup hostility is more likely to occur when two groups want to achieve the same goal, and where only one group can succeed (e.g., negative interdependence context). These hypotheses were tested in three field experiments conducted by Sherif et al. (1961). In these studies, the structure of relations between groups (competition vs. cooperation) was manipulated, resulting in greater discrimination in the contexts of competition (i.e., negative interdependence). In the contexts of cooperation (i.e., positive interdependence, or superordinate goals), on the contrary, there was a decrease in aggressiveness and, overall, reduced hostility against members of the “outgroup”. These results were seen in other field experiments (e.g., Ageev, 1990 cited in Platow & Hunter, 2001) and in the laboratory (Blake & Mouton, 1961). They have also received empirical support and ecological validity in studies conducted with representative population samples from various European countries, as exemplified in the study by Quillian (1995), which used the Eurobarometer Survey database, and more recently, the study by Bello (2013) using data from the European Social Survey.

Of major importance for the argument of this article, the psychological process that sustains the effects obtained in these studies is the development of a sense that members of the outgroup pose a threat to the goal of the ingroup to achieve its goal. The perception of threat, then, would be the cause of hostility against members of the outgroup. Objectively, the threat perception is a central factor for understanding “intergroup” tensions. The active psychological principle in the effect of the threat on hostility is the perception that the outgroup can decrease the well-being of the ingroup, and this justifies defending the interests of the ingroup through hostile behavior towards outgroup members, perceived as the source of threat (e.g., Pereira, Vala, & Costa-Lopes, 2010).

Considering the role of conflicts of interest and the perception of threat in intergroup hostility, the following hypotheses were proposed:

H1: The perceived threat (economic, symbolic, and security-related) from groups of foreigners will be higher in countries that suffer greater impact from the economic crisis (Portugal and Spain).

H2: The perceived threat from foreign groups is a predictor of hostility toward the foreigner, especially in the two countries more affected by the economic crisis.

The assumption is that scarce jobs activate the perception of competition from foreign groups, which come to be seen as a threat to the survival and standing of the national group. Another assumption is that there would be greater similarity between the indicators of Spain and Portugal, due to the socio-economic crisis they are facing, differing from Brazil, which despite having a lower Human Development Index (HDI) than these two countries, at the time of this study, still experienced more favorable economic times.

The Role of Intergroup Emotions

It is recognized that the type of emotion of the individual is related to distinct behavioral intentions towards others (Fridja, Kuipers, & ter Shure, 1989). Anger leads to aggression against the other person, while guilt motivates reparatory behavior. But emotions can also be considered at the group level, with implications for behavioral intentions of group members towards other social groups (outgroups). The assessment process fills an important role in these relationships, since the way the other group is evaluated triggers emotions that activate certain action tendencies.

The perception of an outgroup threat is associated with negative intergroup emotions, and thus, it could be argued that such negative emotions also contribute to increased hostility toward the group of foreigners who compete in the domestic labor market. This suggests a regulating role of emotions at the group level, with repercussions on intergroup relations (Maitner, Mackie, & Smith 2006). However, accord-
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To the view of the authors of this article, the emotions could also act independently of the perceived threat. In this case, positive attitudes toward foreigners would be associated with positive intergroup emotions and would be responsible for friendliness toward such people, even in situations of higher competition for scarce jobs in the domestic market.

To sustain our arguments in the bi-dimensional perspective of intergroup emotions (negative and positive), we distance ourselves somewhat from the original approach to intergroup emotions theory (IET), whose focus is to explore the role of discrete emotions (e.g., fear, guilt) in intergroup relations. However, we converge with the IET where it affirms that group level emotions are activated by a process of self-categorization (self-stereotyping) that makes people see themselves as members of a group acting and moving collectively. The perception of belonging to a group activates social identity, by making each member act as they think that members of their group do. The group therefore becomes part of the self and comes to guide the behavior towards members of the other group (outgroup).

In summary, two psychological forces would be contributing to sustain these relationships between group emotions and action tendencies towards other groups: the intergroup appraisal process (how the other group is viewed) and emotional self-stereotyping (incorporation of an emotion that is believed to be the group’s; Mackie, Smith, & Ray 2008). The consequences of this twofold process would be the alertness, perception, information processing, judgment, decision making, and closeness (friendliness) or distance (hostility) behaviors toward the other groups.

In order to predict the capacity of intergroup emotions in a two-dimensional perspective, the study being described in this article, rather than emphasizing the relationship between discrete negative emotions and the types of behavioral tendencies towards outgroups, explored the predictive power of negative and positive emotions in the behavioral intentions of hostility and friendliness toward foreigners in the workplace. The assumption was that, in addition to testing the strength of the association between perceived threat, negative intergroup emotions, and hostility toward groups of foreigners, what could also be explored was the explanatory power of the positive and negative intergroup emotions in friendliness (prosocial behavior) and hostility behavior toward these same groups.

Based on this understanding, the following hypotheses were formulated:

H3 (a) Negative intergroup emotions towards foreigners is a predictor of the perceived hostility toward the foreigner (avoidance behavior), (b) Positive intergroup emotions toward foreigners is a predictor of the perceived friendliness toward the foreigner (intergroup engagement behavior).

Method

Participants

The study included participants from three countries: Brazil, Portugal, and Spain. In each country, national citizens aged between 18 and 63 years old participated in this research. In Brazil, 89 people participated, the majority being men (59%). The average age of respondents was 32.57 years ($SD = 10.61$), ranging from 18 to 63 years. Regarding educational level, 54.6% ($n = 38$) had a college and a graduate degree. Five participants (5.6%) had at least one foreign parent and 15 (16.9%) had at least one grandparent of another nationality. As to occupational status, 74% ($n = 66$) were active in the labor market. Most of them, 53.93% ($n = 48$), worked or had worked with foreigners, but work experience abroad was modest ($n = 10$), and not exceeding four years.

In Portugal, 87 people participated in the survey, the majority being men (56.31%). The average age of respondents was 39.94 years ($SD = 11.50$), ranging from 20 to 73 years. Regarding educational level, 62% ($n = 54$) had a college and a graduate degree. Five participants (5.6%) had at least one foreign parent and 15 (16.9%) had at least one grandparent of another nationality. As to occupational status, 74% ($n = 66$) were active in the labor market. Most of them, 53.93% ($n = 48$), worked or had worked with foreigners, but work experience abroad was modest ($n = 10$), and not exceeding four years.

In Portugal, 87 people participated in the survey, the majority being men (56.31%). The average age of respondents was 39.94 years ($SD = 11.50$), ranging from 20 to 73 years. Regarding educational level, 62% ($n = 54$) had a college and a graduate degree. Three participants (3.4%) had at least one foreign parent and five (5.7%) had at least one grandparent of another nationality. As to occupational status, 67.81% ($n = 59$) were active in the labor market. Most of them, 62% ($n = 54$), worked or had worked with foreign-
ers, and 21% \((n = 19)\) had experience working abroad, and for 14 (16%) of them this experience exceeded one year.

In Spain, 94 people participated in the survey, the majority being women (53.2%). The average age of respondents was 32.84 years \((SD = 11.23)\), ranging from 18 to 60 years. Regarding educational level, 54.25% \((n = 51)\) had a college and a graduate degree. Fourteen participants \((14.9\%)\) had at least one foreign parent and 12 \((12.8\%)\) had at least one grandparent of another nationality. As to occupational status, 54.25% \((n=51)\) were active in the labor market. Most of them, 53.19% \((n = 50)\), worked or had worked with foreigners, and 37.2% \((n = 35)\) had experience working abroad, 33 \((32\%)\) of them with experience of over one year.

**Instruments**

**Measure of Perceived Threat.** The measure was adapted from the scale developed by Stephan and Stephan (2000) of perceived threat to political security (“The arrival of these people can cause an increase of crime in the country”), economic security (e.g., “The resources and economic development of Brazilians (Portuguese, Spaniards) are threatened by foreigners who come to work in the country”) and symbolic security (e.g., “our freedom and rights are threatened by foreigners who come to work in the country”). The measure has six items to be answered on a five-point Likert scale ranging from (1) “Strongly disagree” to (5) “strongly agree”. Among the items, two refer to the perceived economic threat, three are related to the perceived symbolic threat, and one is about the perceived threat to political security. This items were validated in Portugal and Spain by Pereira et al. (2010) and in Brazil by Pereira and Vala (2011). In the current study, the internal consistency of the measure presented the following indicators: \(\alpha = 0.65\) (Brazil), \(\alpha = 0.81\) (Portugal), and \(\alpha = 0.70\) (Spain).

**Measure of Intergroup Emotions and Feelings.** The measure of feelings in intergroup relations was based on previous studies on attributions of emotions between leaders and followers (Gondim, Álvaro-Estramiana, Schweiger-Gallo, Sá, & Rios, 2008). The measure has 28 items describing feelings and emotions present in group interactions, divided into two dimensions of 14 items each: positive sociability (e.g., friendship, solidarity, understanding) and negative sociability (e.g., insincerity, repulsion, superiority). The response scale is the five-point Likert type, ranging from (1) “Definitely not what we feel!” to (5) “Definitely is what we feel”. The wording of the question is: Next you will be presented with a list of feelings (emotions and affections) and we would like you to indicate how strongly you believe that each of them is present in the relationships between Brazilians (Portuguese or Spaniards) and the group of foreigners you named as a strong competitor in the job market.

In order to address the factorial validity of this measure we carried out a principal component analysis with oblique rotation which indicated, as solutions in each of the three samples, the following parameters: Brazil - two factors, positive emotions and negative emotions, explaining 43.7% of the variance. The factor loadings ranged from \(\lambda = 0.35\) (sincerity) to \(\lambda = 0.77\) (understanding) in the positive sociability dimension \((\alpha = 0.90)\), and from \(\lambda = 0.49\) (guilt) to \(\lambda = 0.74\) (insincerity) in negative sociability \((\alpha = 0.88)\); Portugal - two factors, positive and negative emotions, explaining 43.27% of the variance. The factor loadings ranged from \(\lambda = 0.33\) (tolerance) to \(\lambda = 0.77\) (friendship) in positive sociability \((\alpha = 0.86)\), and from \(\lambda = 0.44\) (pity) to \(\lambda = 0.80\) (shame) in negative sociability \((\alpha = 0.90)\); Spain - two factors, positive and negative emotions, explaining 46.44% of the variance. The factor loadings ranged from \(\lambda = 0.40\) (tolerance) to \(\lambda = 0.79\) (sociability) in positive sociability \((\alpha = 0.91)\), and from \(\lambda = 0.34\) (pity) to \(\lambda = 0.74\) (arrogance) in negative sociability \((\alpha = 0.87)\). This set of parameters demonstrate the factorial validity and reliability of the measure of intergroup Emotions and Feelings.

**Measure of Perceived Hostility and Friendliness to the Foreigner in the Workplace.** The items were constructed by the research team based on the literature on bullying at work, especially the work by Hirigoyen (2001), and involve behaviors of friendliness and hostility towards
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foreigners in the workplace that are targeted at the social group of foreigners perceived as competitors. The measure consists of 22 items divided into two dimensions: Friendliness - intergroup engagement behavior; and Hostility - intergroup behaviors of avoidance and minimal cordiality. The wording of the question is: Indicate how much each of these behaviors is present in relations between Brazilian (Portuguese, Spanish) workers and the foreigners that you considered strong competitors in the domestic labor market. The response scale is the five-point Likert style, ranging from (1) “Brazilians (Portuguese, Spaniards) definitely do not do that” to (5) “They definitely act that way.”

We used a principal component analysis with oblique rotation to address the factorial validity of this measures. Results showed two factors, friendliness and hostility, each with 11 items in each of the three samples: in Brazil, the two factors explained 43.7% of the variance. In the hostility dimension ($\alpha = 0.89$), the factor loadings ranged from $\lambda = 0.47$ (imitating their accent to ridicule them in front of others) to $\lambda = 0.80$ (intentionally ruin some object of their work), and in the friendliness dimension ($\alpha = 0.72$), the loadings ranged from $\lambda = 0.32$ (avoid name calling) to $\lambda = 0.73$ (speak well of them to others); in Portugal the two factors explained 48% of the variance, and factor loadings ranged from $\lambda = 0.58$ (make threatening phone calls) to $\lambda = 0.82$ (making gestures of contempt in front of them - sighs, scornful looks, shrugging shoulders, etc.) in the hostility dimension ($\alpha = 0.90$), and from $\lambda = 0.37$ (avoid spreading rumors about them) to $\lambda = 0.78$ (to agree with them, when in agreement with their ideas) in the friendliness dimension ($\alpha = 0.85$). Finally, in Spain the two factors explained 49% of the variance. The factor loadings ranged from $\lambda = 0.57$ (imitating their accent to ridicule them in front of others) to $\lambda = 0.85$ (making gestures of contempt in front of them - sights, scornful looks, shrugging shoulders, etc.), in the hostility dimension ($\alpha = 0.91$), and from $\lambda = 0.19$ (avoid name calling) to $\lambda = 0.83$ (try work on the same team as them) in the friendliness dimension ($\alpha = 0.82$). This set of parameters demonstrate the factorial validity and reliability of the measure of perceived hostility and friendliness towards foreigners in the workplace.

**Measure of Competition.** Perceived competition was measured by the following question: Considering the type of work you do (or plan to do), could you tell us (using the scale from 1 to 5) to what extent you consider the members of each group mentioned are more likely to compete for a job similar to the one you have (or plan to have), or of higher status in the domestic market, with 1 meaning “is not a strong competitor” up to 5 meaning “is a strong competitor.”

For Brazil the following groups were presented: Africans (e.g., Angolans, Mozambicans), Asians (e.g., Chinese), North Americans (e.g., U.S. Americans), Latin Americans (e.g., Bolivians, Paraguayans, Uruguayans, and Argentinians), and Europeans (e.g., Portuguese, Spaniards, Germans). For Spain the following groups were presented: Africans (e.g., Moroccans, sub-Saharan countries), Asians (e.g., Chinese), North Americans (e.g., U.S. Americans), Latin Americans (e.g., Ecuadorians, Dominicans, and Argentinians), Europeans (e.g., Germans, English, and French), and Eastern Europeans (e.g., Romanians, Ukrainians). For Portugal the following groups were presented: Africans (e.g., Angolans, Mozambicans, Cape Verdeans, Sáo Tomeans, Moroccans), Asians (e.g., Chinese), North Americans (e.g., U.S. Americans, Canadians), Latin Americans (e.g., Brazilians, Bolivians, Paraguayans, Uruguayans, Argentinians, and Venezuelans), Europeans (e.g., Spaniards, English, Dutch, and French) and Eastern Europeans (e.g., Romanians, Ukrainians). The choice of examples included in parentheses sought to take into account the numerical and symbolic representativeness in each of the three countries where the study was conducted.

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1 The reliability analysis of the friendliness dimension showed no significant improvement in the alpha value with the removal of the item, which is why it was kept in the creation of the variable, friendliness toward foreigners.
Data Collection Procedures

For data collection, an electronic questionnaire (Globalpark’s EFS Survey) was used. We opted for data collection via laptop computers and internet access in the public areas of international airports in Salvador (Bahia, Brazil) and Madrid (Spain), and at the National Library of Portugal. Thus the criterion that collection be taken in public-access locations was met.

The people present in the public-access areas of the airports and the library were approached by a member of the site research team (locals) and invited to fill out the online questionnaire. The sample, therefore, was not random. After confirmation that the invited person was a native of the country, a member of the research team provided the initial clarifications and invited the subject to respond to the online questionnaire, using the research team’s notebook or their own portable via the access link. On the first page of the study, the consent form for participation was presented, which the participant had to accept to go on responding to the survey. The maximum survey completion time was 25 minutes.

Data Analysis Procedures

Descriptive and Comparative Analyses (ANOVA and t-test) were used for the perceived threat, perceived competition and intergroup emotions to foreigners among the samples of the three countries considered. Correlation analysis tested the relationship between the main variables. Multiple regression analysis was used to investigate the extent to which the variables included in this study would be predictors of the perceived hostility and friendliness towards foreigners in each country.

Ethics Procedures

All participants were instructed by the researchers to individually answer all the items. The informed consent was obtained in the beginning of the questionnaire from all of them. They were informed that their answers were completely anonymous and that absolute confidentiality was guaranteed in the treatment of the data. All American Psychological Association (APA) guidelines for research with humans were followed.

Results

The descriptive analyses and correlations, and in sequence, the results of the multiple regression analysis, designed to test the predictive value of antecedent variables in the perceived hostility and friendliness to foreigners in the workplace, will be presented first.

Descriptive and Comparative Analyses

Perceived Threat from Foreigners. The results of an ANOVA with repeated measures revealed that there was an interaction effect between country and the three types of threat, $F (2, 267) = 13.72; p < .001$. Multiple comparisons with Bonferroni correction (with $p < .05$) indicate that the primary foreign threat is economic, for the three countries, especially for Spaniards ($M = 2.95; SD = 0.90$), followed by Brazilians ($M = 2.72; SD = 0.83$), and the Portuguese ($M = 2.45; SD = 0.85$). Regarding the other two types of threat (symbolic and security) the countries split, as the threat to security is the second most important for Portugal ($M = 2.76; SD = 1.17$) and Spain ($M = 2.50; SD = 1.25$), while for Brazil it is the symbolic threat ($M = 2.39; SD = 0.72$). In third place appears the symbolic threat for Spain ($M = 2.36; SD = 0.88$) and Portugal ($M = 1.92; SD = 0.83$), while for Brazil it is the security threat ($M = 2.08; SD = 1.18$).

Perceived Competition from Groups of Foreigners. The results of the analysis of variance comparing perceived competition between natives and foreign groups are detailed in Table 1.

The results of the $t$-test for the sample in each country, using the value 3 (the scale ranged from 1 to 5) as the criterion delimiting perceived strong competition, revealed the existence of significant differences in Brazil between all the social groups, with the North Americans, Western Europeans, and Asians considered the strongest competitors. In Spain, all the means differ from to the midpoint, except for Asians. Western Europeans and Americans are the strongest competitors for the Spaniards. For Portugal, all
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Comparison of means of the general indicator of perceived foreign competition (overall average perception of competition, taking into account all target groups) between countries proved to be significant, $F(2, 269) = 10.34$, $p < .001$, Brazil holding first place ($M = 3.12; SD = 0.79$), followed by Spain ($M = 2.89; SD = 0.79$), and lastly Portugal ($M = 2.56; SD = 0.84$). All the differences between the averages are significant according to the Bonferroni test with $p < .05$.

Intergroup Emotions. The results of the analysis of variance comparing the positive and negative emotions of natives in relation to foreigners perceived as stronger competitors showed significant differences only for negative emotions, $F(2, 269) = 3.63; p < .05$, with the Brazilians showing the highest mean ($M= 2.37; SD = 0.78$), followed by the Spaniards ($M = 2.23; SD = 0.68$), and the Portuguese ($M= 2.07; SD = 0.75$). In the comparison within each country, it was found that in all three countries, people reported expressing more positive emotions than negative ones towards foreign competitors: Brazilians ($M = 3.06, SD = 0.78$), $t_{(188)} = 5.32; p < .001$, Portuguese ($M = 3.08, SD = 0.63$), $t_{(188)} = 8.40; p < .001$, and Spaniards ($M = 2.92, SD = 0.71$), $t_{(93)} = 6.03; p < .001$.

Correlation Analysis

Table 2 presents the results of the correlations between the main study variables. The results indicate that the economic and symbolic threats have the highest association with the study variables. The perception of friendliness is strongly associated with positive intergroup emotions, whereas the perception of hostility is strongly associated with negative intergroup emotions.

Regression Analysis

We used multiple regression analysis to investigate the extent to which the study variables would be predictors of perceived hostility and friendliness towards foreigners in each country, in order to test the hypothesis that the role of the perceived threat and negative emotions in the attitudes towards immigrants (hostility and friendliness) would be stronger in the countries more affected by the financial crisis than in Brazil. To carry out this proposal, we used the dummy variable coding system for the countries variable: Dummy 1 (Brazil = 0, Portugal = 0, Spain = 1); Dummy 2 (Brazil = 0, Portugal = 1, Spain = 0). In this coding system, Brazil is used as the reference group against which each of the other two countries is compared. The other variables we included in the analyses

Table 1

Comparison of Perceived Competition among the Six Groups of Foreigners by Country

<table>
<thead>
<tr>
<th></th>
<th>Brazil</th>
<th>Spain</th>
<th>Portugal</th>
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<tbody>
<tr>
<td></td>
<td>$M (SD)$</td>
<td>$M (SD)$</td>
<td>$M (SD)$</td>
</tr>
<tr>
<td>US Americans</td>
<td>3.84 (1.21)*</td>
<td>3.63 (1.26)*</td>
<td>3.17 (1.37)*</td>
</tr>
<tr>
<td>Western Europeans</td>
<td>3.72 (1.20)*</td>
<td>3.90 (1.27)*</td>
<td>3.44 (1.33)*</td>
</tr>
<tr>
<td>Latinos</td>
<td>2.61 (1.14)</td>
<td>2.63 (1.19)</td>
<td>2.43 (1.18)</td>
</tr>
<tr>
<td>Africans</td>
<td>1.94 (1.15)</td>
<td>1.81 (1.10)</td>
<td>1.89 (0.94)</td>
</tr>
<tr>
<td>Asians</td>
<td>3.51 (1.44)**</td>
<td>2.89 (1.43)**</td>
<td>2.18 (1.27)**</td>
</tr>
<tr>
<td>Eastern Europeans</td>
<td>2.49 (1.17)</td>
<td>2.31 (1.13)</td>
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</tbody>
</table>

Note. In the Brazilian survey only the Western European group (Germans, Portuguese, Spaniards, French, etc.) was presented. The scale ranges from 1 to 5.1 size of effect 0.13, 2 size of effect 0.04, 3 size of effect 0.06. * $p < .05$ and ** $p < .001$ in the differences between countries.

the means differ from the midpoint of the range, except for the Americans. Western Europeans are the strongest competitors.

Comparison of means of the general indicator of perceived foreign competition (overall average perception of competition, taking into account all target groups) between countries proved to be significant, $F (2, 269) = 10.34$, $p < .001$, Brazil holding first place ($M = 3.12; SD = 0.79$), followed by Spain ($M = 2.89; SD = 0.79$), and lastly Portugal ($M = 2.56; SD = 0.84$). All the differences between the averages are significant according to the Bonferroni test with $p < .05$.

Intergroup Emotions. The results of the analysis of variance comparing the positive and negative emotions of natives in relation to foreigners perceived as stronger competitors showed significant differences only for negative emotions, $F (2, 269) = 3.63; p < .05$, with the Brazilians showing the highest mean ($M= 2.37; SD = 0.78$), followed by the Spaniards ($M = 2.23; SD = 0.68$), and the Portuguese ($M= 2.07; SD = 0.75$). In the comparison within each country, it was found that in all three countries, people reported expressing more positive emotions than negative ones towards foreign competitors: Brazilians ($M = 3.06, SD = 0.78$), $t_{(188)} = 5.32; p < .001$, Portuguese ($M = 3.08, SD = 0.63$), $t_{(188)} = 8.40; p < .001$, and Spaniards ($M = 2.92, SD = 0.71$), $t_{(93)} = 6.03; p < .001$. 

Correlation Analysis

Table 2 presents the results of the correlations between the main study variables. The results indicate that the economic and symbolic threats have the highest association with the study variables. The perception of friendliness is strongly associated with positive intergroup emotions, whereas the perception of hostility is strongly associated with negative intergroup emotions.

Regression Analysis

We used multiple regression analysis to investigate the extent to which the study variables would be predictors of perceived hostility and friendliness towards foreigners in each country, in order to test the hypothesis that the role of the perceived threat and negative emotions in the attitudes towards immigrants (hostility and friendliness) would be stronger in the countries more affected by the financial crisis than in Brazil. To carry out this proposal, we used the dummy variable coding system for the countries variable: Dummy 1 (Brazil = 0, Portugal = 0, Spain = 1); Dummy 2 (Brazil = 0, Portugal = 1, Spain = 0). In this coding system, Brazil is used as the reference group against which each of the other two countries is compared. The other variables we included in the analyses
Table 2
Correlations between the Study Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>$M$</th>
<th>$SD$</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competition</td>
<td>2.86</td>
<td>0.84</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic threat</td>
<td>2.71</td>
<td>0.89</td>
<td>0.06</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symbolic threat</td>
<td>2.13</td>
<td>0.86</td>
<td>-0.02</td>
<td>0.55**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive emotions</td>
<td>3.02</td>
<td>0.71</td>
<td>0.15*</td>
<td>-0.22**</td>
<td>-0.21**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative emotions</td>
<td>2.33</td>
<td>0.75</td>
<td>0.11</td>
<td>0.15*</td>
<td>0.13*</td>
<td>-0.25**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friendliness</td>
<td>3.16</td>
<td>0.70</td>
<td>-0.17**</td>
<td>-0.16**</td>
<td>0.49**</td>
<td>-0.06</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hostility</td>
<td>2.02</td>
<td>0.74</td>
<td>0.08</td>
<td>0.16**</td>
<td>0.18**</td>
<td>0.10</td>
<td>0.53**</td>
<td>-0.23**</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. Due to the main focus of the research, only the symbolic threat (associated with social identity, which could be reflected in friendliness) and the economic threat (associated with the global crisis) were included, the security threat being left out. * $p < .001$ and ** $p < .05$.

Table 3
Regression Analysis for Hostility and Friendliness

<table>
<thead>
<tr>
<th>Variables</th>
<th>Hostility$^1$</th>
<th>Friendliness$^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$b$</td>
<td>SE $b$</td>
</tr>
<tr>
<td>Constant</td>
<td>2.091</td>
<td>0.070</td>
</tr>
<tr>
<td>Spain_dummy</td>
<td>-0.068</td>
<td>0.097</td>
</tr>
<tr>
<td>Portugal_dummy</td>
<td>-0.043</td>
<td>0.102</td>
</tr>
<tr>
<td>Perc_compet_Z</td>
<td>-0.117</td>
<td>0.087</td>
</tr>
<tr>
<td>Econ_threat_Z</td>
<td>-0.001</td>
<td>0.093</td>
</tr>
<tr>
<td>Symb_threat_Z</td>
<td>0.215</td>
<td>0.095</td>
</tr>
<tr>
<td>Neg_emotions_Z</td>
<td>0.453</td>
<td>0.088</td>
</tr>
<tr>
<td>Posi_emotions_Z</td>
<td>0.226</td>
<td>0.090</td>
</tr>
<tr>
<td>Spain*compet_Z</td>
<td>0.155</td>
<td>0.122</td>
</tr>
<tr>
<td>Portugal*compet_Z</td>
<td>0.213</td>
<td>0.118</td>
</tr>
<tr>
<td>Portugal*symb_threat_Z</td>
<td>-0.248</td>
<td>0.143</td>
</tr>
<tr>
<td>Spain*symb_threat_Z</td>
<td>-0.155</td>
<td>0.126</td>
</tr>
<tr>
<td>Spain*econ_threat_Z</td>
<td>-0.028</td>
<td>0.124</td>
</tr>
<tr>
<td>Portugal*econ_threat_Z</td>
<td>0.172</td>
<td>0.139</td>
</tr>
<tr>
<td>Portugal*neg_emotions_Z</td>
<td>0.100</td>
<td>0.128</td>
</tr>
<tr>
<td>Spain*neg_emotions_Z</td>
<td>0.154</td>
<td>0.135</td>
</tr>
<tr>
<td>Portugal*posi_emotions_Z</td>
<td>-0.081</td>
<td>0.147</td>
</tr>
<tr>
<td>Spain*posi_emotions_Z</td>
<td>-0.404</td>
<td>0.132</td>
</tr>
</tbody>
</table>

Note. $b$ = non-standardized regression coefficient; $SE b$ = Standard error; $\beta$ = standardized regression coefficient; in bold ** $p < .001$, * $p < .05$. 
were centered on their means. These centered variables were multiplied by the two dummy variables representing countries in order to obtain the interaction effects between countries, emotions, competition, and perceived threats. The significant interactions were interpreted following the procedures recommended by Aiken and West (1991). These procedures allowed us to plot the interaction effects, and test for significant differences between the slopes.

The results of the regression analyses are presented in Table 3.

In relation to hostility, we found a significant interaction effect between the expression of positive emotions and the Spain dummy variable, which compares the Spanish participants with the Brazilians. This interaction means that the effect of positive emotions on hostility is different between Spain and Brazil. As can be seen in Figure 1a, in Spain the relationship between these emotions and hostility is negative, where the expression of positive emotions implies less hostility ($b = -0.178$, SE = 0.097; $\beta = -0.17; p = .06$), while in Brazil and in Portugal the relationship is positive and the strength of this relationship does not differ between the two countries, as indicated by the absence of significant interaction between the Portugal dummy variable and positive emotions. In Brazil’s case, however, the expression of more positive emotions is associated with attitudes more hostile towards immigrants ($b = 0.226$; SE = 0.090; $\beta = 0.217$, $p < .01$). In Portugal the relationship between positive emotions and hostility is also positive, but not significant ($b = 0.144$; SE = 0.116; $\beta = 0.139$, ns.).

![Figure 1. Relationship between positive emotions, hostility (1a) and friendliness (1b) in each country.](image-url)
We also found a significant effect of perceived symbolic threat, such that the greater this perception, the greater the hostility towards immigrants. Similarly, the effect of negative intergroup emotions is also significant: the greater the indicators of negative intergroup emotions towards immigrants, the greater also is the perceived hostility. Since these variables did not interact significantly with the dummy variables (Portugal or Spain), the effect of the symbolic threat and negative emotions are the same in each of these countries.

With regard to friendliness, the two dummy variables (Spain and Portugal) interacted significantly with the expression of positive emotions. These interactions indicate that the relationship between these emotions and friendliness, in Portugal and Spain, is different from that observed in Brazil. In fact, analyzing Figure 1b, we can see that the effect of these emotions in the expression of greater friendliness is stronger in Portugal and Spain than in Brazil. In Portugal, for example, the more participants indicated expressing positive emotions, the stronger also was the friendliness toward immigrants ($b = 0.638; SE = 0.114; \beta = 0.656; p < .001$). A similar effect was observed in Spain, with the expression of positive emotions implying greater friendliness ($b = 0.552; SE = 0.096; \beta = 0.568; p < .001$). In Brazil, although the relationship between these two variables is positive, the strength of the relationship is lesser ($b = 0.278; SE = 0.088; \beta = 0.286; p < .001$). The interaction effects observed show that, in fact, positive emotions lead to greater friendliness in all the countries, but their strength is more pronounced in Spain and Portugal than in Brazil.

**Discussion**

Two principal objectives guided the study reported here. The first was to analyze whether the perception of hostility-friendliness toward foreigners perceived as the strongest competitors in the labor market could be explained by perceived threat (symbolic and economic) and negative intergroup emotions. The second objective was to analyze whether the relationships of threat and emotions (positive and negative) with hostility and friendliness vary depending on the national context of three countries, in differing socioeconomic situations.

Contrary to the main hypothesis of this research, the economic crisis does not seem to be associated with the perception of greater competition with foreigners. Portugal and Spain, experiencing greater impact from the global financial crisis of 2008 and with high unemployment figures, presented lower overall averages of perceived competition with foreigners than Brazil, a country that at the time of this research had more favorable economic indicators. Although the multilevel studies by Quillian (1995) and Bello (2013) have included contextual variables, corroborating their explanatory power in negative attitudes towards immigrants, no clear evidence was found in this study of the relationship between perceived foreign competition in the domestic labor market and hostility towards foreigners. The results corroborate the studies by Davidov and Meuleman (2012), Facchini and Mayda (2012), and Gang et al. (2013), that actual economic factors are not sufficient to explain the negative attitudes towards foreigners in the workplace.

This interpretation that there is no evidence of a direct association between a country’s economic situation and the perception of hostility toward foreigners was again supported in the regression analysis results, in which the perceived symbolic threat variable ($\beta = 0.249$) appeared as a predictor only for the Brazilian sample. In the same bent, negative emotions served as predictors only for the Brazilian sample ($\beta = 0.455$). It is noteworthy, the predictor role of positive emotions in the samples from Brazil ($\beta = 0.217$) and Spain ($\beta = 0.568$), than in Brazil ($\beta = 0.286$).

One must keep in mind, however, that it is not the negative intergroup emotions that predominate in the three countries, but the positive intergroup emotions, suggesting that whether or
not the country is in crisis, this variable predicts the perceived friendliness toward the foreigner in the workplace. This result does not corroborate the main thesis of this study, that people from countries in crisis would have more negative emotions toward foreigners, which would be reflected in the indicators of perceived hostility toward these social groups in the workplace.

Regarding the perception of threat, one has to consider that although Spain, one of the countries in crisis, presented the highest average for economic threat, followed by Brazil, only the averages for perceived security threat followed the sequence: Portugal, Spain, and Brazil - most likely due to the high indicators of violence in Brazil, which makes it understandable that Brazilians do not perceive foreigners as contributing to the increase of violence in the country, seen as already quite high.

In order to better understand the relationship between threat perception, negative intergroup emotions, and negative attitudes toward foreigners, according to the model by Quillian (1995), claiming association not only with the economic crisis, but with the relative size of the country’s foreign population, we consulted the website of the International Organization for Migration (IOM)² and made a rough calculation of the foreign community in the three countries, taking as reference the two leading groups of foreigners considered strong competitors: Brazil (US Americans and Western Europeans - Portuguese, Spanish, and German), Portugal (Western Europeans - French, Spanish, German - and US Americans), and Spain (Western Europeans - Portuguese, German, French, and English - and US Americans). In the case of Brazil, US Americans and Western Europeans represent 0.05% of the country’s total population (nearly 191 million in 2010)³. In Spain these two immigrant groups represent a much higher percent-

age, 0.56% (of the country’s population of 45.8 million⁴). In Portugal the same groups represent 0.68% (of the country’s population of 10.6 million⁵). These data show clearly that Portugal has the highest concentration of foreign groups considered competitors in the labor market, followed by Spain. However, the results from the samples in the three countries do not suggest an explanation from the measure of the immigrant community in the country.

Finally, we turn to the importance of explaining why the results indicate that despite the country being in crisis or not, there is greater friendliness than hostility towards foreigners. One possible explanation is the profile of the samples in the three countries: high educational level (Brazil, 54.6%; Spain, 54.25%; Portugal 62%); foreign descent (Brazil, 22.5%; Spain, 27.7%; Portugal, 9.1%); experience working with foreigners (Brazil, 53.93%; Spain, 53.19%; Portugal, 62%); and work experience abroad (Brazil, 11.23%; Spain, 37.2%; Portugal, 21%).

Specificities of each country may also help to explain this result, as has already been pointed out by Markaki and Longhi (2012). In Brazil’s case, for example, we may resort to the myth of the cordial reception of foreigners. In the view of Simai and Baeninger (2011), the myth is understood as a process of naturalization and masking of internal ideological conflicts which denies the presence of xenophobic traits in the national identity, revealed by a history of exploitation of indigenous peoples, Africans, and internal migrants in Colonial Brazil.

Moreover, the welcoming of foreigners as a national identity trait is strengthened by the history of miscegenation in Brazil (Freyre, 1940) and the transmission of that image via mass communication. Another explanation along the same lines can be found in Floriani, academic coordi-

³ U.S. Americans approximately 14,000 and Western Europeans 92,000. Source: http://www.ibge.gov.br/home/estatistica/populacao/censo2010/default.shtml
⁴ U.S. Americans approximately 39,000 and Western Europeans 218,000. Source: http://europa.eu/about-eu/countries/member-countries/spain/index_pt.htm
⁵ U.S. Americans approximately 10,000 and Western Europeans 63,000. Source: http://europa.eu/about-eu/countries/member-countries/portugal/index_pt.htm
ator of the Casa Latino-Americana (CASLA), in Curitiba, for whom, in the Brazilian imagination, tolerance towards the arrival of foreigners stems from the ethnic-cultural hybridism in the population’s makeup (Assad, 2012).

Following the same line of interpretation, the explanation for the low hostility towards foreigners among the Portuguese, when compared with Brazil and Spain, can be explained by the strong anti-racism norm owing to the ideology of Luso-tropicalism and the self-perception of the Portuguese of their role in the history of the colonization of other peoples (Vala, Lopes, & Lima 2008), functioning as if it were a form of compensation.

One of the main limitations of this study was the impossibility of including context variables in the analyses and doing a multilevel analysis of the predictors of hostility. This permitted us to take only indirect readings of the impact of the economic crisis on the perception of the natives of each country. Another important variable that was not included in the study and that could help explain the relationships of positive and negative intergroup emotions with the perceptions of hostility and friendliness toward the migrant foreigner is values (Davidov & Meuleman, 2012). As general, ideal and guiding principles of individual and collective behaviors, values could act as mediators or moderators. We also suggest replicating the study with other samples of the three countries, particularly in Brazil, because of differences in educational level in the country, which are not properly represented in this study.

Finally, it is important to add that the data collection in which this study is based was obtained at a moment in which the economic situation of the countries considered was quite different. Spain and Portugal were still experiencing the consequences of an economic crisis with very high unemployment rates. On the contrary, Brazil was still benefiting from a period of economic growth. Since 2013 this situation has gradually changed; while Spain and Portugal are in a better economic situation, Brazil has entered a period of deep financial and political turmoil. Nevertheless, the results obtained are important since the show how emotions (positive and negative), perception of competition and symbolic threat can explain attitudes towards immigrants.

Further studies could take into account the changes that have occurred in these countries and contrast the results with the ones obtain in this study. This will allow us to understand in a better way to what extend the economic situation of a country can explain the prejudice and hostility in dealing with foreigners. Future studies should also include contextual variables that would allow to perform multilevel analysis.

Although perceived symbolic threat and negative emotions are associated with perceived hostility, positive emotions towards foreigners are better indicators in explaining positive attitudes towards immigrants. The fact that the economic situation of the three countries considered do no interact with these emotional variables is a strong indicator of the validity of our results. It opens a space to rethink the mecanistic view of the intergroup studies based on the hypothesis that economic threat is a determinant of negative attitudes towards members of outgroups considered as competitors in the labour market.

One of the most important practical implications of these results is that in times of social conflicts, economic and political crisis, intergroup tolerance can be better achieved by those strategies that favour the spread of positive intergroup images. The belief that what we have in common is greater than what differentiates us may have a positive impact on positive attitudes towards out groups. Attach positive values to the cultures of other groups may minimize the gap between social groups with different national identities, thus generating positive emotions among them.

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