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Animal Welfare, National Identity and Social Change: Attitudes and Opinions of Spanish Citizens Towards Bullfighting

Gustavo A. María¹; Beatriz Mazas²; Francisco J. Zarza³; Genaro C. Miranda de la Lama^{1,4}

¹Department of Animal Production and Food Science, Faculty of Veterinary Medicine, University of Zaragoza, Miguel Servet 177, 50013 Saragossa, Spain. ²Department of Didactics of Experimental Science, University of Zaragoza, Saragossa, Spain.

³Personal and Professional Development Group, University of Zaragoza, Saragossa, Spain. ⁴Laboratory of Sustainable Livestock Production, Department of Food Science, Metropolitan Autonomous University, Lerma, State of Mexico, Mexico.

Abstract

Traditionally, in Spain bullfighting represents an ancient and well-respected tradition and a combined brand of sport, art and national identity. However, bullfighting has received considerable criticism from various segments of society, with the concomitant rise of the animal rights movement. The paper reports a survey of the Spanish citizens using a face-to-face survey during January 2016 with a total sample of 2522 citizens (1256 men and 1266 women). The survey asked about degree of liking and approving; culture, art and national identity; socio-economic aspects; emotional perception and animal welfare. The hypothesis proposed that the perception of bullfights may be affected by gender, age, occupation, origin and nationality of the persons surveyed. The hypothesis was confirmed. The majority of citizens surveyed do not like bullfights and great majorities do not attend or watch such events. Two extreme clusters were described: one representing favorable attitude towards bullfighting and other against bullfighting. The proportion of indifferent persons was important. Women and young people showed a more favorable attitude towards animal welfare issues associated with these events. Rural people were more accepting bullfights than urban people. Students were more antibullfight than those in other occupations. Additionally, technical economic factors made people favor more bullfights. The growth of claim against bullfights establishes an element of a far more multifaceted phenomenon that animal cruelty per se and support of a new paradigm called social change in countries as Spain.

Keywords: Citizens attitudes; Bullfighting; Animal welfare; Social change; National identity; Spain.

Introduction

The strong social claim in favour of animal welfare has produced important changes in the European legislation controlling the different human–animal relationships (María 2006). This concern is not new and has been addressed by several philosophers (Singer 1997; Rolston 1989; Sandoe et al. 1997; Regan 2004; Vilmer 2013). In Europe, the policies and regulations established are primarily welfare-oriented, with less noticeable activism for animal rights per se than is observed in the United States (Guither and Curtis 2002). However, millions of consumers in Europe and the North America are allowing their concern for animal welfare/rights to transform their diets and lifestyles (Braunsberger and Buckler 2011). The policy literature has responded to these concerns by suggesting a variety of policy instruments to policy makers (Ingenbleek et al. 2012). The aim of all animal welfare policies is to prevent suffering or, when an animal has to suffer in some way, to minimize it as much as possible. One of the priorities of the EU authorities is to regulate the protection of the animal at the moment of slaughter and during all the pre-slaughter handling. European rules state that no animal should be slaughtered without proper and effective stunning using approved methods in order to avoid the perception of pain and to minimize the stress prior to and during slaughter.

However, the Council Regulation (EC) 1099/2009 to protect animals at slaughter includes some exceptions related to cultural or religious reasons. One of these exceptions concerns countries where popular events use animals as a spectacle. The bullfight as a public spectacle is popular throughout Spain, Portugal, Southern France and many Latin American countries (Campbell 1932; Saumade 1994; Colomb and Thorel 2005). However, it is in Spain alone where these events have attained notable political, cultural and symbolic importance (Brandes 2009), and inclusive is part of the national identity - i.e. Osborne bull—(Johnson and Leatherman 2005; Santos and Trillo-Santamaría 2017). The study of

attitudes is interesting because of the possible influence they have on human behavior (Kellert 1996; Webb and Sheeran 2006). There is a notable variation in human attitudes towards animals and the reasons for that variation should be investigated (Batt 2009; Fernie et al. 2012; Spooner et al. 2012). A review of the sociological and anthropological studies defines bullfighting as a class of celebration in which the bull is sacrificed by the bullfighter (De Solis 1992). Bullfighting dates back to the beginnings of Mediterranean culture (Younger 1976; Rice 1998).

Culture is a complex concept that includes the knowledge, beliefs, art, morality, law, customs and any habits and abilities acquired by humans as members of society (De Lora 2011). Therefore, when we talk about our cultural inheritance, we talk about art and literature or about celebration of religious traditions, but not about our more trivial and popular habits (Andersen 2017). The cultural analysis of bullfighting is described by Driesen (1982), Pitt-Rivers (1993), Graña et al. (2004). In Spain, festivals are considered important markers and celebrations of ethnic/cultural identity (Douglas 1991). Due to the deeply rooted traditions of these events in the Spanish population and the growing concern about animal welfare recently observed, especially among young people (María 2006; Miranda-de la Lama et al. 2013), we decided to conduct a survey soliciting people's opinions of these events related to bullfighting named generically as "taurine" events. The survey mainly concerned bullfighting, and asked about different aspects (blocks/items) related to: 1. Sociodemographic information; 2. Liking and approving (afición); 3. Culture, art and identity; 4. Socio-economic aspects; 5. Anthropocentric emotional perception and, 6. Animal welfare. According to our hypothesis, the perception of this type of event may be affected by the gender, age, occupation, origin (rural or urban) and nationality of the persons surveyed. If this effect occurs, it should be possible to detect clusters in relation to their perception of (in favor or against) bullfighting in Spain, using the city of Zaragoza as a model. The knowledge of these clusters will be useful to develop strategies to address such a problematic issue in Spain, informing people about the consequences that bullfighting events may have on the welfare of animals.

Materials and Methods

A questionnaire was drawn up following a Likert-type scale attitude assessment model (Mazas et al. 2013). Questionnaire-based personal surveys were carried out on a cross section sample of 2522 persons in the city of Zaragoza, capital of the autonomous region of Aragón (old Kingdom of Aragón). Zaragoza is a city of half a million people, located in north-east Spain, is typically used by social and market studies since the socio-demographic profile of this town is representative of the Spanish Census of Population (Gracia and Zeballos 2005; María 2006; Gracia 2013; Miranda-de la Lama et al. 2013). The pollsters work in groups of 2–3 veterinary freshman students of Veterinary Medicine, enrolled on our Animal Welfare course.

Survey

Before the final questionnaire, in-depth interviews were carried out using draft questions, with the participation of the different people we assumed we would later have in the real survey. Based on these results we designed the final questionnaire. The socio-demographic characteristics of the survey of 2522 people were 1256 (49.8%) men and 1266 (50.2%) women. In terms of age, 22.5% were between 18 and 30 years old; 24.3% were between 31 and 45 years old; 26.8% belonged to the 46–60 years old group; and the remaining 26.5% were over 60 years of age. In relation to the origin of the people surveyed, 81.5% were city inhabitants, while the remaining 18.5% came from rural villages but lived in the city. We also categorized the sample by occupation and the results were as follows: 16.5% retired people, 10.9% students, 55.4% active workers, 7% unemployed, 7.1% housewives and 3.9% reported no occupation. Of the total number of persons surveyed, 95.9% were Spanish and 4.1% were foreign.

The survey consisted of six sections. The first section included the sociodemographic characteristics of the respondents. The second section included three questions to evaluate attitudes about liking (afición) bullfights and similar events (2.1 I like bullfights; 2.2 I regularly attend the bullfighting arena; and 2.3 I watch bullfights on TV). In the third section respondents were asked about aspects relating to culture, art and identity, including three more statements (3.1 Bullfighting should be declared a cultural heritage of

Spain; 3.2 Bullfighting is an art form and should be protected; and 3.3 I like bullfighting as a symbol of Spanish identity). The fourth section asked about the socio-economic aspects of the BF in general, and included five more questions (4.1 The holidays of my town would be less attractive and entertaining without bulls; 4.2 Without bullfights the Lidia cattle breed and its ecosystem (the Dehesa) would disappear; 4.3 The banning of bullfights would mean the loss of many jobs; 4.4 Without bullfights the tourism industry would be damaged; and 4.5 Spain will be compelled to ban bullfights by European law). The fifth section, relating to the (anthropocentric) emotional perception of this type of event, included three questions (5.1 The Lidia bull is a brave and noble animal born to die in the bullfighting arena; 5.2 The bull does not suffer in the bullfighting arena because of its instinct; and 5.3 If the bullfights are banned the species will become extinct). Finally, the sixth part of the survey investigated the perception of animal welfare including three questions (6.1 Cultures evolve and tend to have more respect for animals; 6.2 I suffer when I see a bull in the bullfighting arena used for the entertainment of people; and 6.3 I agree with the ban on bullfights as is already the case in other countries).

In all sections, the level of agreement to the question or statement proposed was assessed using an ordinal scale from 1 to 5 points, 1 being very low agreement and 5 being very high agreement. As regards the pro-bullfight or anti-bullfight attitude of the respondents, the interpretation of the score is different between sections. A high score in sections 2, 3, 4 and 5 should be interpreted as a pro-bullfight attitude, while a high score in the last section (6) should be considered as an anti-bullfight attitude.

Statistical Analysis

All statistical analyses were carried out with the software Package SPSS, Version 15.0. As an initial measurement, preliminary analysis was performed to describe the sample and the socio-demographic results. Preliminary univariate analyses were performed for all the variables studied to understand their individual performance and to detect outliers. An analysis of mean differences was realized between the population groups with respect to each of the six categories of questions. The bivariate analysis was used to observe the significant changes in the relationship among the patterns of variables in the different groups to detect specific differences. Univariate analyses were used to develop frequency tables and percentages and their corresponding bar graphs. Bivariate analyses were used to develop contingency tables with their respective χ^2 square test, Mann–Whitney test and Kruskal–Wallis test. In addition, the Spearman correlation (Spearman's rho) was calculated, which is a non-parametric test appropriate for this type of variable. As a main task of exploratory data mining, we realized a cluster analysis to group respondents in such a way that persons in the same group (called a cluster) are more similar (in the sense of pro- or anti-bullfight attitude) to each other than to those in other groups.

Results

Generally, the proportion of people who do not like BF is significantly higher than those who like this type of event (49 vs. 39%). These differences are more evident in women and young people ($p \leq 0.01$). When we ask whether this liking is expressed by attending live bullfights or other live BF, the proportion of people who do not participate is much higher (77 vs. 23%). This proportion is smaller when we ask whether they watch BF on TV (58 vs. 32%).

Overall Data

As regards questions grouped as culture, art and identity, the proportion of people who agree to having BF as a Spanish cultural heritage is equilibrated (40 vs. 38%), with 22% of respondents indifferent. Women and the young constitute a higher proportion. The figure is very similar when we ask about BF being an artistic expression. A majority of respondents agree that bullfighting is a symbol of Spanish national identity (48 vs. 35%). This majority is smaller among women and the young and the proportion who are indifferent is relatively high (18%).

In relation to the technical–economic aspects of the survey, a majority of respondents (44.5%) think that these types of events, including bullfights, are very popular and a source of entertainment during their

city/village holidays. In the case of women, this proportion is significantly ($p \leq 0.01$) lower (39%). A majority of respondents (63.5%) agree that the prohibition of bullfights would lead to the extinction of the Lidia breed and the disappearance of the Dehesa ecosystem (natural for this breed). In the same way, majorities of people (61%) think that the prohibition of bullfights would cause a major loss of jobs in the BF industry in Spain. However, when we ask whether this prohibition would negatively affect the tourism industry in Spain, the proportion of people who agree is significantly lower (42%), in contrast to the 39% who disagree ($p \leq 0.01$). The same division of opinion is observed when we mention that prohibition could be imposed by the European Union (EU) (36% yes vs. 33% no). This statement shows a high proportion of neutral opinions (30%). In this segment (technical-economic) there is more agreement between sexes and between age classes.

The emotional perception block of questions shows that approximately half of the respondents disagree with the affirmation that the Lidia bull is a “noble” animal born to die in the bullfighting arena. This proportion of disagreement is significantly higher among women and young people. The proportion of persons (68%) who disagree with the statement that the Lidia bull does not suffer in the arena due to its instinct is even higher, and this disagreement is also higher among women and young people. However, half of respondents think that the prohibition of bullfights would represent the extinction of the species, clearly confounding breed with species.

In the animal welfare perception segment, 70% of persons surveyed agree that cultures evolve and tend to show a higher level of respect for animals (only 15% disagree). A majority of respondents (52%) feel sorrow when they see a bull in the arena suffering for the entertainment of people; this is even higher among women and young people ($p \leq 0.01$). However, when we ask whether they agree with the abolition of bullfights, the majority (50%) disagree, and 35% are in favor of the ban. Again, the agreement that bullfighting should be abolished is higher ($p \leq 0.01$) among women and especially young people (> 50%).

Blocking Variable Analysis

Firstly, we analyze the mean differences between the population groups (according to their profession or occupation) of the overall sample (Table 1). The results show that there are significant ($p < 0.0001$) differences in all categories with X^2 values over 100 in all the categories with the exception of Animal Welfare category that presents a not so high values (68), but always highly significant. Once it has been proven that there are differences between the blocks, it is necessary to perform the bi-variant comparison for the different grouping variables analyzed. The contrast analysis between grouping variables gender, origin, nationality age, age and occupation by blocking variables of liking, art and identity, technical economic, emotional perception and animal welfare blocks, are presented in Figures. 1a–c and 2a, b, respectively. As we mention above, scoring high in the section of liking, art and identity, technical economic and emotional perception is interpreted as a pro-bullfight attitude. A high score in the last section (animal welfare) should be considered as an anti-bullfight attitude.

The comparison between gender class is highly significant for all blocks (U Mann–Whitney $p = 0.000$), the mean for men being higher than for women for the categories of liking, art and identity, technical economic and emotional perception. The women present higher mean values for the animal welfare block. With regard to the age of the persons surveyed, there are significant differences between younger people below 31 years old and those in the age range 31–45 years old, for all categories (with the exception of the animal welfare block). When we compare the same class of younger people with older people, but still under 61 years old, there are differences in all categories (U Mann–Whitney $p = 0.000$). In this way, the people of the age class ranging from 46 to 60 years old grade higher (U Mann–Whitney $p = 0.000$) in the categories of liking, art and identity, technical economic and emotional perception. However, in the category of animal welfare, the younger group score higher (U Mann–Whitney $p = 0.031$) than the older class of 46–60 years old. When we compare young people with persons over 60, we find that old people also grade higher (U Mann–Whitney $p = 0.000$) in all categories, except for animal welfare. In this case, the relation is the opposite (higher in young people). When we compare the two medium age classes (31–45 vs. 46–60), no significant differences are found (U Mann–Whitney $p = 0.05$) in any of the blocks analyzed. However, there are significant differences for the categories of liking, art

and identity, technical economic and emotional perception (higher in the upper class). This comparison for the animal welfare block shows opposite results with higher values in the lower category (U Mann–Whitney $p = 0.000$). Significant differences are observed for all categories (except animal welfare) with higher marks in the upper class (U Mann–Whitney $p = 0.000$). This comparison for the animal welfare block shows mean values higher in the 45–60 class.

Table 1. Mean differences between the different population groups (according to their profession or occupation) of the overall sample.

	Blocks in the questionnaire				
	Liking (afición)	Culture, art and identity	Technical economic	Emotional perception	Animal welfare
Chi-square (χ^2)	145.91	127.40	140.92	189.40	68.59
DF	4	4	4	4	4
Asymptotic significance	0.000	0.000	0.000	0.000	0.000

Kruskal–Wallis test
DF Degree of freedom

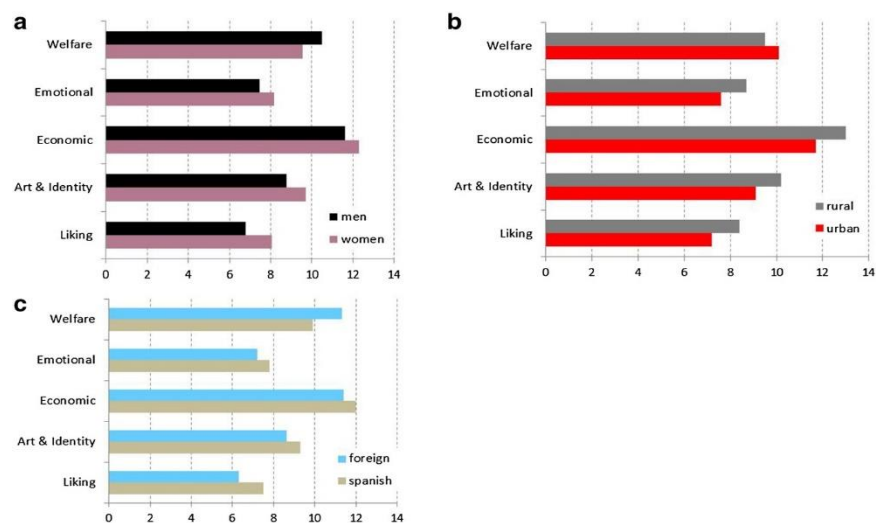


Figure 1. Pair test results by grouping variables as gender (a), origin (b) and nationality (c).

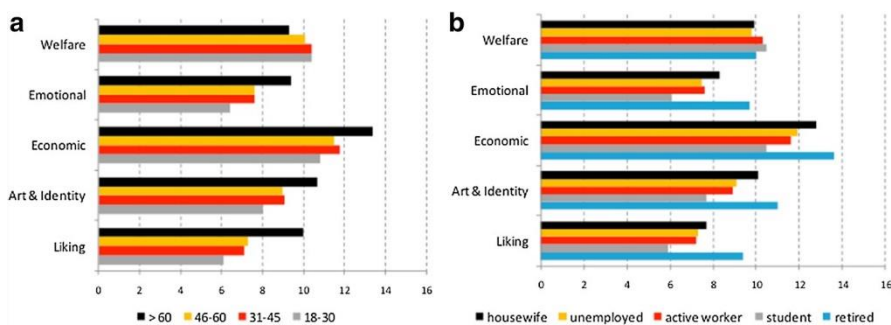


Figure 2. Pair test results by grouping variables age class (a) and occupation (b).

With respect to occupation, significant differences exist between retired people and students (U Mann–Whitney $p = 0.000$) in all categories, the means for retired people being higher in all the categories, with the exception of the questions related to the animal welfare block, in which case the students score higher. We also find significant differences (U Mann–Whitney $p = 0.000$) for all categories between retired people and active workers, with higher scores for retired people in all categories except for the animal welfare block, in which case the active workers score higher. In the same way, there are significant differences (U Mann–Whitney $p = 0.000$) between retired and unemployed people, with the same trend as in the previous comparison, with a higher score for retired people for all categories, except animal welfare. In this case, unemployed people score higher (U Mann–Whitney $p = 0.003$) than retired. In the comparison between retired people and housewives, we find significant differences (U Mann–Whitney $p = 0.000$) with higher scores in the retired, except for the animal welfare block, in which case housewives grade higher than retired (U Mann–Whitney $p = 0.000$).

In relation to student's vs active workers, differences are significant (U Mann–Whitney $p = 0.000$) with higher scores for active workers in liking, art and identity and emotional perception. On the other hand, comparing students' opinions with unemployed persons', the means are significantly different (U Mann–Whitney $p = 0.000$) in all categories studied (liking, U Mann–Whitney $p = 0.000$; art and identity U Mann–Whitney $p = 0.001$; technical economic, U Mann–Whitney $p = 0.000$; emotional perception, U Mann–Whitney $p = 0.000$; and animal welfare, U Mann–Whitney $p = 0.024$). These differences show higher mean values in unemployed persons for the first four categories, while for the animal welfare block students' score is higher. If we test the pair of means for students and housewives, the latter score higher (U Mann–Whitney $p = 0.000$) for the first four blocks (liking, art and identity, technical economic and emotional perception). Again, the relationship is the opposite in the animal welfare block (higher in students, but less significant; U Mann–Whitney $p = 0.027$).

The active workers score lower than housewives in art and identity, technical economic (U Mann–Whitney $p = 0.000$) and emotional perception (U Mann–Whitney $p = 0.009$), while the relationship is the opposite (higher in active workers) for liking (U Mann–Whitney $p = 0.000$), and no significant differences are found in the block of questions related to animal welfare (U Mann–Whitney $p = 0.076$). Finally, when we compare unemployed with housewives, significant differences are detected for the question blocks related to art and identity (higher in housewives; U Mann–Whitney $p = 0.025$), technical economic (higher in housewives; U Mann–Whitney $p = 0.016$) and emotional perception (higher in unemployed; U Mann–Whitney $p = 0.039$). No difference is found in this comparison pair for the other two blocks of questions (liking and animal welfare) with U Mann–Whitney $p = 0.715$.

Regarding the origin of the persons surveyed, people from rural areas score significantly higher (U Mann–Whitney $p = 0.000$) for categories of liking, art and identity, technical economic and emotional perception, while people from the city score higher in the animal welfare block (U Mann–Whitney $p = 0.000$). In terms of nationality, the pair test detects significant differences related to the animal welfare block with higher scores in foreign people (U Mann–Whitney $p = 0.000$). However, the other category with significant differences (liking) shows higher values in Spaniards (U Mann–Whitney $p = 0.013$).

High correlations (Spearman's rho, $p = 0.000$) are observed between the scoring of the different categories analysed (Table 2). The categories of art and identity, technical economic and emotional perception show positive correlations, indicating that the respondents tend to score in the same way these three categories. However, the category animal welfare shows a negative correlation with the others, scoring these questions in the opposite way in relation to the first three sections of the questionnaire. The data confirm the interpretation of the positive scoring tendency of the first four categories (mainly the first three) relating to the respondents' attitude as in favor of TE; and the positive scoring tendency of the animal welfare category relating to an attitude against the TE.

Table 2. Correlation matrix (Spearman's rho, $p < 0.001$) between categories of questions

	Liking (afición)	Art/ identity	Technical economic	Emotional perception	Animal welfare
Liking (afición)	1	0.763	0.659	0.706	- 0.665
Art and identity		1	0.737	0.714	- 0.668
Technical– economic			1	0.811	- 0.584
Emotional perception				1	- 0.605
Animal welfare					1

Cluster/Conglomerated Analysis

The cluster (conglomerated) analysis is performed to group the population surveyed with respect to the category scoring observed (Fig. 3). The analysis shows three differentiated groups of respondents. The first group presents high scores in the categories of liking/afición, art and identity, technical economic and emotional perception, in concordance with the correlation values presented in the previous table. This group that has more “pro-bullfighting” opinions is named the “pro-bullfight” group (PBF). The other group that shows low scores in the sections mentioned above, but high scores in the animal welfare section, is “anti-bullfight” (ABF). The respondents of the third group show no clear tendency in categories, with intermediate scores for the first and the third category (NBF). The PBF respondents score the first four sections of the questionnaire 322, 283, 194 and 264% higher than the ABF, while the ABF score the last section related to animal welfare 172% higher. It should be noted that a high score in the first four sections relating to liking/afición, art and identity, technical economic and emotional perception is interpreted as a more favorable position towards bullfighting events (Fig. 3). In comparison, a high score in the last section relating to animal welfare issues is interpreted as an unfavorable position towards bullfighting events. The section with the lowest differences between groups relates to the technical economical aspect.

The associations between groups of the population with respect to the sociodemographic variables considered in the study are presented in Figures. 1 and 2. There is a very strong association (χ^2 156.779; $p = 0.000$) between the occupation of the respondents and their opinion about the aspects of BF surveyed. A clear association exists between the gender of the respondents and their opinion on bullfighting and bullfight related events (χ^2 44.17; $p = 0.000$). Overall, women demonstrate a clearly favorable attitude towards anti-bullfight opinion. However, within the cluster of indifferent people there are more women than men, to a degree that we did not expect. There is a significant association between the age of the respondents and their opinion towards BF (χ^2 174.845; $p = 0.000$). Fewer persons than expected have pro-bullfight attitude in the youngest class (18–30 years old) and more than expected in the oldest class (>60 years old). For the medium age classes the expected and the observed frequencies do not differ significantly. There are more retired persons and housewives than expected with pro-bullfight attitudes (Fig. 2). In the case of students and active workers, the tendency is opposite to that of the retired respondents with more persons than expected with anti-bullfight attitudes. No significant effect is observed in employed people. When we consider the origin (urban or rural) of the respondents and the relationship with the cluster obtained, we find a clear association with the opinion expressed (χ^2 45.832; $p = 0.000$). The analysis demonstrates that there are fewer people of urban origin than expected with a pro-bullfight attitude. The opposite is true in people of rural origin, who demonstrate a more pro-bullfight attitude and have a significantly lower presence within the NBF group. A significant relationship between the opinion about BF and nationality is found, but lower than in the other socio-demographic variables

analysed ($\chi^2 7.705$; $p = 0.001$). In general, Spaniards show a higher presence than expected in the PBF group. In comparison, foreigners show a higher presence than expected in the ABF and NBF groups.

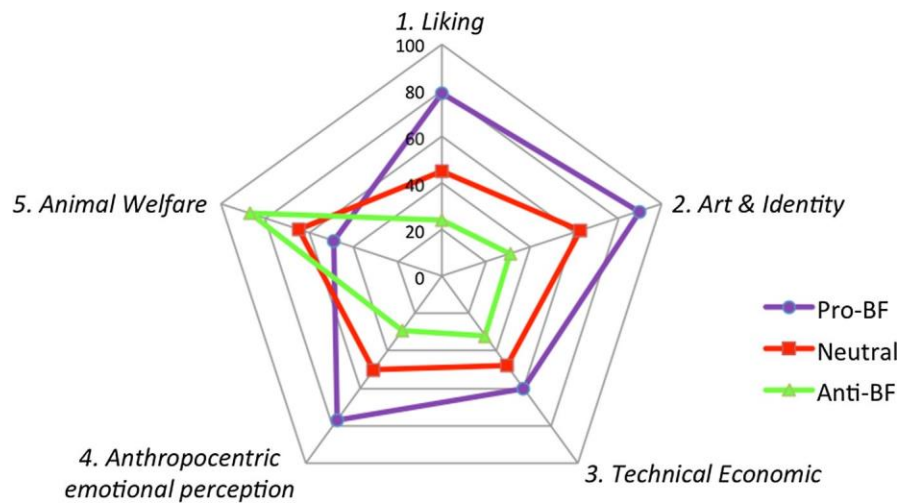


Figure 3. Spatial representation of the clusters according to the five items (max score 100%). Pro-BF group score higher in items 1–4 and low in item 5. Anti-BF group score higher in item 5 and lower in the others. BF bullfight and related events

Discussion

The current study identified the Spanish public's attitude to bullfighting and revealed differences associated with five demographic characteristics (gender, age, occupation, origin and nationality), the overview under which bullfight is carried out, and respondents' bull welfare value orientations. In the recent decades, even though still popular with many hundreds of thousands of followers, it has lost its grip and relevance in a modern society and is even under strong claim by animal rights organizations and some segments of the society (De Brito and Branco 2009). Its critics complain that animals are wounded during bullfight, or, more fundamentally, that bullfighting violates what some see as a fundamental animal right: freedom from pain, fear and distress. Bullfighting has created continuing controversies, polarizing people in specific geographic locations (as has happened with the activists protests against bullfighting San Isidro's fair in Madrid), in regions (as happened with Spain's constitutional court overturned Catalonia's controversial ban on bullfighting, imposed by the regional government in 2010), and even worldwide (exclusion on the representative list of the intangible cultural heritage of France in 2015) (Beilin 2012). The current study is the first to report the attitudes and opinions of Spanish citizens towards bullfighting and their relationship to animal welfare, national identity and social change.

Overall Data

According to our data, the majority of people surveyed do not like bullfights or similar entertainment, and do not attend or watch on TV such events. This finding is especially evident in women and young people. The results agree with data from an Ipsos MORI public opinion poll commissioned by Human Society International (HSI, <http://www.hsi.org/issues/bullfighting/>). In this survey more than 75% of the population had not attended bullfights in the past 5 years, only 29% of Spanish people supported bullfighting and 77% agreed that children under 16 should not be allowed to attend. Only 7% of HSI respondents attended a bullfight "about once a year", which is a very low proportion compared with the 20 percent who said they visited a museum/art exhibition or theatre visits, or the 12 percent who attended football matches. In a survey by Gallup for a local company in 2008, people were asked about their interest in bullfighting: 69% said they had "no interest" in bullfighting, with a growing tendency across the years (40% in the seventies). The same trend was reported by De Lora (2011) comparing the interest in

bullfighting between 1971 (55%) and 2006 (27%), with more interest in people over 64 years compared with people below 25 years old (44 and 18%, respectively). Similarly, in our results, the proportion of people expressing no interest in bullfighting was more significant in women and young. In Spain, ever since the constitution was signed in 1978, there has been a growing interest in outlawing many forms of animal abuse (De Lora 2011). Animal abuse is formally penalized since 2003, with further restrictions in the new Spanish Penal Code (Organic Law 1/2015, March 30). One of the most recent polls was commissioned by El País and carried out by Metroscopia immediately after the bullfighting ban was voted through in Barcelona in 2010. In this survey, 57% of people across Spain were against the bullfighting ban in Catalonia, even though 60% of those polled said they did not like bullfighting. In this case, only 37% of Spaniards said they liked bullfighting.

In our study, a great majority of people do not approve of public funds being used to promote bullfighting. These results are not consistent with the subsidy policy and government spending on these activities (estimated to be approximately 700 MEUR). Spanish farmers receive the handouts for breeding the Lidia animals used in the bullfights as part of the Common Agricultural Policy (CAP). The EU allocates more than 100 MEU of CAP money each year to farmers who use their pastures to rear fighting bulls. It is remarkable that bullfights were recently declared intangible assets of cultural interest (BIC) by the Spanish Parliament. However, more than half a million signatures were presented against that declaration of the parliament, with the support of several international personalities. Therefore, there is controversy surrounding bullfighting with, especially now that some regions have banned bullfighting (Canary Islands). There is also a controversy about the constitutionality of these regional laws. According to De Lora (2011), bullfights are not constitutionally prohibited, but neither is it illegal to prohibit them.

In our study, more than 60% of people did not agree that bullfighting is a Spanish cultural heritage. When the respondent was a woman or young person, the proportion was even higher. Historically, bullfights represented an important source of inspiration for Spanish artists. Goya and Picasso painted pictures inspired entirely by bullfighting. While some artists and writers have defended bullfighting, many others have opposed it. For many artists and politicians, cruelty against animals has no place in a modern society. It is clear that society evolves and some artistic expressions that were naturally accepted decades or centuries ago may not be fully understood nowadays. But we do not have to confuse the supposed “art of bullfighting” with the undisputed “art about the bulls.” Some artists have made great works related to bullfights, just as many novelists have gained notoriety describing murders. However, neither provides bullfights or murders with any artistic dignity in and of themselves (Ovejero et al. 2010). Approximately half the respondents agree that bullfighting is a symbol of Spanish national identity. Again, women and the young show a higher level of indifference in relation to this aspect of the survey. Even though our survey asks about “national identity”, it is very difficult to define a unique Spanish identity. According to historians bullfighting is certainly one of the best known, although at the same time most controversial, Spanish popular customs (Martín-Ezpeleta 2012). One aspect that reflects consistency between classes of respondents is related to economic-technical issues. More than 60% of the respondents agree with the statement that a significant number of jobs would be lost if bullfighting is prohibited. This attitude could be explained as a natural response to the very high unemployment rate in Spain currently ([22%). For some lawyers, abolition would prevent the exercise of certain recognized professions and free enterprise or market units (Doménech 2010). However, the rights invoked are not absolute and animal welfare is a legally protected right. It is therefore possible to maintain the constitutionality of sacrificing certain rights such as artistic freedom or the free exercise of some professions to protect the welfare of animals (De Lora 2011).

Another aspect related to the economic importance of BF on the annual festivals of each town or village. More than 44% of respondents believe that their fiestas could lose their appeal without TE. However, of the top 10 tourist attractions in Spain, only one is associated with bullfighting. It is also difficult to know how many people in the audience of a bullfight are tourists. However, there is definitely a strong argument that if international public opinion continues to worsen and tourists stop attending, the number of bullfights may dwindle as organizers find the events no longer economically viable. The proportion of people who are less enthusiastic about bullfighting in their local festival is higher among young people and women who are more attracted by other events associated with other cultural events.

An aspect with which respondents mostly agree concerns the possible extinction of the Lidia breed. The tendency to fight is a well-known behavior in this cattle breed that has been empirically selected for aggressiveness (Pelayo et al. 2016). There are distinct subpopulations, many of them genetically closed (Silva et al. 2006). The main objective of the production systems using Lidia breed is the performance in the bullfight, oriented to a “market” associated with the existence of the bullfights (Menéndez-Buxadera et al. 2017). It is logical to think that if the bullfights disappear the breed will be at risk of extinction (not the species). A majority of the persons surveyed perceive that the dehesa ecosystem will be at risk if bullfights are prohibited. The dehesas (meadows) of the southwestern Iberian Peninsula are ‘man-made’ ecosystems characterized by a savannah-like physiognomy (Lomillos et al. 2012). The profitability of the dehesas has been based on the diversity of products and permitted ecological sustainability for many centuries (Lefroy et al. 1993; Chapin et al. 1997). The number of registered fighting bull brands and properties is more than 1200 and there are approximately 135,000 breeding cows in 540,000 ha of dehesa. There are other cattle populations that are also considered “dehesa” breeds, in addition to the Iberian Pig and Horses (Martí-Burriel et al. 2007). It is evident that even without the Lidia breed, there remain other autochthonous breeds of domestic animals that are part of this ecosystem, which will ensure the survival of the dehesas (Lomillos et al. 2013).

Gender and Age Effect

Our survey confirms the hypothesis that the perception of BF is affected by the gender and the age of the respondents. The results indicate that women have greater concern about welfare issues than men. In a Gallup survey commissioned by a local company in 2008, the differences between men and women in relation to interest in BF were remarkable. Women generally have more positive attitudes towards animals than men (Peek et al. 1996; Beardsworth et al. 2002; María 2006; Miranda-de la Lama et al. 2017). Moreover, more men than women support animal research, hunt animals for recreation and engage in animal cruelty (Lauber and Brown 2000). In contrast, women nearly always outnumber men at animal rights demonstrations (Herzog 2007). Gender differences result from the interactions of factors that operate at multiple levels, and it is unlikely that any single factor can account for the array of differences in human–animal relationships (Unger 2001; Lippa 2010).

There is scientific evidence that the age has a significant effect on opinions about animal welfare issues (Miranda-de la Lama et al. 2013). In general, older people believe that animals are well treated, while the younger population has more negative perception (Gamborg and Jensen 2017). In a survey published by Gallup in 2008, the differences between age classes are significant, with persons over 55 years more interested in BF (44%), especially among those over 65 (in which case the ratio is 51%). Those results generally coincide with those in our study. There is also evidence that younger citizens are more concerned about health and welfare standards, which may be considered as an indicator of concern about animal suffering (Verbeke and Viaene 2000; María 2006). This number will probably increase since many young people seem to appreciate the efforts from NGOs (Braunsberger and Buckler 2011).

Clusters

In general, we distinguish between anti-bullfight people (ABF) and pro-bullfight people (PBF). The ABF, who score higher in the animal welfare section and lower in the other sections, generally argue that the practice of BF is barbaric and that the animal suffers. They also differentiate between killing for meat, considered to be a necessity, and killing for fun. The PBF (scoring higher in the first four sections and lower in the animal welfare section) point out that the bull is eaten afterwards, so the animal’s death is not in vain. They also believe that the bull does not suffer during BF because a good bullfighter will kill the animal skillfully. This argument is questionable; while the final kill is quick, the suffering of the bull during the fight is prolonged (15 min excluding transport and lairage in the ring area). Novelty is a strong stressor when an animal is suddenly confronted with it and it triggers intense fear (Grandin 1997; Gregory 2004). Bull still perceives contact with humans as an alarming predatory encounter and sudden changes in their physical and social environment as a frightening experience (Waiblinger et al. 2006; Zulkifli 2013). All behavioral evidence shows that bulls suffer during BF and even in those that do not end with their deaths

(i.e. rejoneo or when the bull is pardoned for his outstanding performance). All aspects of any BF, from transport to death, are in themselves causes of fear and suffering (Casamitjana 2015).

The composition of the ABF is biased by gender (more women) and age (more young). The bias is also clear among urban people with higher levels of education. The PBF is composed mainly of men of medium-old age. This figure is interesting for the future with young and women leading the change. We think that such evolution is natural and related to other aspects of the relationship between humans and animals. Bullfighting is already banned in some Spanish regions such as the Canary Islands. The EU shows no sign of banning BF, and it will be critical to predict the future evolution of this controversy, and the trend of the third group of indifferent or undecided regarding BF (NBF). In the coming years, it is possible that the so-called “brexit” make the EU more cautious about taking measures to regulate matters that may affect deep-rooted traditions of member countries (i.e. BF).

In general, the answer obtained in this study indicates that people in Spain do not fully agree with a EU-imposed prohibition, even though most seem concerned about matters relating to animal welfare during the fight. We perceive that people are of the opinion that BF will disappear gradually on account of the natural evolution in social attitudes. This fact is confirmed by the positive attitude towards animal welfare among young people and, in particular, women, which was also observed in many other aspects of animal welfare issues. There are also other arguments against prohibition based on the view that this would harm people financially (loss jobs). In the line of all animal welfare studies, education would be the best way to achieve agreement on the prevention of animal suffering (Broom 2001). Improving education programs to include animal welfare and animal–human relationship will take time, probably generations (Mazas et al. 2013). There is already evidence to demonstrate that agreement is possible, as in the case of religious slaughter (Grandin and Regenstein 1994).

Conclusions

The results obtained in this study showed that the attitudes to BF differ with respect to the sex, age, profession, origin and nationality of the respondents. Any kind of action to be taken should consider this fact. The population of respondents presented three main clusters. Two extreme clusters were described. One represents the favorable attitude towards BF, and the other represents the persons who are against BF. The proportion of indifferent persons was important and should be monitored in the future. In general, women and young people showed a more favorable attitude towards animal welfare issues associated with these events, demonstrating more concern for all aspects of animal suffering. Rural people were more accepting of BF than urban people. This aspect was also evident when Spaniards were compared with foreigners. Students were more anti-BF than those in other occupations. Additionally, technical economic factors made people favor more BF, and this is probably linked to the economic crisis. The target person with anti-BF attitude should be a young, female student of urban origin. In comparison, the target person with pro-BF attitude should be an older Spanish man, retired, of rural origin. The growth of claim against bullfights establishes an element of a far more multifaceted phenomenon than animal cruelty per se and support of a new paradigm called social change in countries as Spain. The limited number of published studies in the field of animal welfare reflects the lack of knowledge about attitudes and opinions of citizens towards bullfighting and other festivity or ritual events with animals. It is also necessary to examine farming politics and practices, the existing tradition of animal protection and attempts to rethink the nature of animal suffering in countries with taurine tradition. Multidisciplinary and inter-sectorial works that include the animal welfare are crucial for the prevention and reduction of violence in society.

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