

# Chapter 2

## Consumer's Valuation and Quality Perception of Kid's Meat from Traditional "Cabrito da Gralheira": Protected Geographical Indication

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### 2.1 Introduction

During the last years, there has been an increased interest in traditional food products (TFP), which are linked to a place or region of origin (Verbeke and Roosen 2009). Two main drivers may explain this trend: the increasing policy support, particularly within the European Union (EU), and the consumer demand for TFP (Pieniak et al. 2009).

#### 2.1.1 European Policy Toward Traditional Food Products

The EU's Common Agricultural Policy (CAP), in 1992, led to a policy change orientation, from price supports and increasing food quantity policies promoting rural development, in part, through increasing food quality (Becker 2009). In 1992, the EU introduced a system to protect and promote traditional and regional food products which are linked to the territory or to a production method, the EU system of

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geographical indications that allows three different forms of protection: Protected Designation of Origin (PDO), Protected Geographical Indication (PGI), and Traditional Specialties Guaranteed (TSG). The first two categories of protection are established by Regulation (EEC) No. 2081/92 (EU 2002a), which was later replaced by Council Regulation (EC) No. 510/2006 (EU 2006b), while TSGs are protected by Regulation (EEC) No. 2082/92 (EU 2002b), later replaced by Council Regulation (EC) No. 509/2006 (EU 2006a).

The aim of Regulation (EEC) No. 2081/92 was the protection of geographical indications as names for food products, other than wine and spirits. The fundamental difference between PDO and PGI depends how strongly the product is linked to a specific geographical place. For the PDO, the quality or characteristics of the product must be essentially or exclusively due to the particular geographical environment of the place of origin, where the geographical environment is understood to include natural and human factors, such as climate, soil quality, particular skills, social patterns, practices, and perceptions (Bérard and Marchenay 2007). Additionally, production, processing, and preparation of the raw materials, up to the stage of the finished product, must take place in the defined geographical area. Regarding PGI, the link between the product and the geographical area the product is named upon is not as restricted as in the case of PDO. The requirement for PGI is that the product possesses a specific quality, reputation, or other characteristic attributable to the geographic region. Moreover, it is enough that one of the stages of production, processing, or preparation has taken place in the defined area. Furthermore, under the rules for PGIs, it is enough that a specific quality, reputation, or other characteristic is attributable to the geographical origin. In sum, the production of a PDO is fully realized in a territory, whereas a PGI can be more or less delocalized while retaining certain geographic meaningful features (Larson 2007).

Products protected by these EU quality schemes receive legal protection, EU financial support, and member state financial aid for their promotion is a possibility. If a product is registered as either PDO or PGI, the legal protection of the name is much more comprehensive than the protection for a brand name, because not only is the name protected against unfair competition, but also the mere use of the name in any commercial context is prohibited. This high level of legal protection to the names of registered products enables to encourage the rural development (Avermaete et al. 2004; Williams and Penker 2009), particularly by communities engaged in traditional agricultural practices, improving the income of farmers and retaining the rural population in these areas (EU 2006b). Additionally, due to their protected tradition and to their increased level of recognition in the global market, producers differentiate TFP based on attractive consumer criteria, promoting their higher market prices (Ittersum et al. 2007; Dagne 2010).

Consumers look for products that are authentic, with a solid tradition behind them. This reflects concerns toward food products expected to be safe, healthy, with a good quality and respecting the environment, while promoting local communities (Cunha and Moura 2004). Moreover, the excessive homogenization reinforced by the globalization movement promotes that consumers' attempt to differentiate themselves through cultural identity (Jordana 2000). In fact, according to literature, there exist different motivations to purchase and consume TFPs (Platanía and

Privitera 2006; Wycherley et al. 2008; Pieniak et al. 2009; Vanhonacker et al. 2010b). Europe cannot be regarded as a homogeneous food country (Rozin 1990; Guerrero et al. 2010), particularly regarding TFPs and traditional cuisine that are mainly based on natural resources locally available (Vanhonacker et al. 2010b).

According to Becker (2009), Southern European countries have a high number of collective quality marks, which can be regarded as possible candidates for registration as a PDO or a PGI. These countries have a more traditional food character due to a greater market share of small companies and a better climate, which supports a widespread availability of TFPs (Jordana 2000). As a result, Southern European consumers are more likely to be confronted and to be familiar with traditional foods and use them in their delectable and elaborate diets (Jordana 2000; Trichopoulou et al. 2007; Pieniak et al. 2009).

In Portugal, Spain, and Greece, the number of products registered is lower than in Italy and France, but still higher than in the other EU countries. Portugal holds the fourth position considering the number of registered products, after Italy, France, and Spain (EU Database of Origin and Registration 2011): the number of registered products in 2011 already totaled 116 (58 PDOs and 58 PGIs). In this context, Portugal is a PDO-/PGI-oriented country, considering the presence of a high number and a medium growth rate of PDO/PGI products, namely, with a high number of meat products registered as PDO or PGI (Becker 2009).

In Spain and Portugal, there is an important demand for meat from young goats (milk-fed kids), often slaughtered near 60 days of age (Jiménez-Badillo et al. 2009). In Portugal, in 2011, there was one PDO kid meat, *Cabrito Transmontano*, and there were four PGI kid meats, named *Cabrito das Terras Altas do Minho*, *Cabrito do Barroso*, *Cabrito da Beira*, and *Cabrito da Gralheira* (EU Database of Origin and Registration 2011). In 2008, Portugal had the second position in number of registered fresh products, after France and before Spain (52, 27, and 13 registered products, respectively); nevertheless the production was estimated at 2257 tons (120,785 for France and 37,311 for Spain), and the turnover was estimated at 12.3 € million (517.1 € million for France and 190.4 € million for Spain), reinforcing weakness in production and commercialization (EU Database of Origin and Registration 2011).

### ***2.1.2 Drivers of Traditional Food Product Consumption***

From European consumers' point of view, a TFP is a "product frequently consumed or associated to specific celebrations and/or seasons, transmitted from one generation to another, made in a specific way according to the gastronomic heritage, naturally processed, distinguished and known because of their sensory properties and associated to a certain local area region or country" (Guerrero et al. 2009, p. 348). This definition reflects broadness and subjective opinions and beliefs about TFP (Vanhonacker et al. 2010b), that are generally associated with a positive general image and consumption (Pieniak et al. 2009; Vanhonacker et al. 2010b; Almlí et al. 2011). Further, when investigating the TFP choice motives, at least four

interrelating factors linked to TFP attributes emerged (Platania and Privitera 2006; Wycherley et al. 2008; Pieniak et al. 2009; Vanhonacker et al. 2010a; Almlí et al. 2011): (a) sensory attributes (quality, taste, authenticity-uniqueness), (b) health attributes (nutritional value, safety, natural content), (c) purchase-consumption attributes (price, availability-convenience, familiarity consumption/festive occasions), and (d) ethical attributes (environmental friendliness, support from the local economy).

Taste is recognized as an important factor influencing food choice in general (Steptoe et al. 1995; Glanz et al. 1998; Alves et al. 2005; Eertmans et al. 2006; Cardello et al. 2007) and in TFP choice context (Iaccarino et al. 2006; Platania and Privitera 2006; Vanhonacker et al. 2010b). TFPs taste good, in the sense that they have a unique taste. In fact, distinct taste appeared as one of the strongest characteristics that consumers associated with TFPs (Guerrero et al. 2009, 2010; Vanhonacker et al. 2010b; Almlí et al. 2011). This unique taste is strongly identified with a specific region because TFP have, by their very nature, a land-based geographical origin sourcing of indigenous raw materials and with cultural and gastronomic heritage (Tregear et al. 1998; Chambers et al. 2007; Chrysochoidis et al. 2007; Guerrero et al. 2009, 2010).

Moreover, TFPs are perceived to have a higher quality (Fandos and Flavián 2006; Chambers et al. 2007; Ittersum et al. 2007; Vanhonacker et al. 2010b; Almlí et al. 2011), as they taste good and are considered as safe. Consequently, TFPs could be perceived either as good for health, reinforcing their perceived natural content and authenticity (no chemical modification, no additives), or as bad for health, due to their potential high-fat content and energy density and risk of microbial contaminations, resulting from their minimal preservation, processing, or packaging (Kuznesof et al. 1997; Cayot 2007; Trichopoulou et al. 2007; Guerrero et al. 2009; Pieniak et al. 2009; Almlí et al. 2011).

In fact, TFPs are often associated with special dishes consumed on festive occasions (Christmas, Easter), reinforcing their hedonic attributes rather than health benefits (Pieniak et al. 2009; Almlí et al. 2011). Nevertheless, TFPs are also linked to familiar situations and perceived as food products that are eaten quite frequently and linked to family eating habits (Platania and Privitera 2006; Conter et al. 2008; Guerrero et al. 2009, 2010; Pieniak et al. 2009; Vanhonacker et al. 2010b).

Additionally, consumers associated TFPs with ethical concerns (Almlí et al. 2011). Consumers may prefer local products to foreign ones as they help support the vitality of rural areas (Platania and Privitera 2006; Roininen et al. 2006; Chambers et al. 2007; Ittersum et al. 2007) and due to their environmental friendliness production (Åsebø et al. 2007; Risku-Norja et al. 2008; Almlí et al. 2011). However, according to Pieniak et al. (2009), these ethical concerns do not have a significant relation with general attitudes toward TFP and TFP consumption.

Furthermore, TFPs are associated with higher prices and fail to appeal to consumers in terms of perceived convenience (Chambers et al. 2007; Almlí et al. 2011). Curiously, those attributes are also perceived by consumers having a positive image toward TFPs (Vanhonacker et al. 2010a; Almlí et al. 2011). For these consumers, more time and effort spent on preparing TFP-based meals for their family may

engage into positive feelings for these products, as they consider cooking as taking care of their family. Additionally, European consumers are aware of the price premiums associated with traditional foods. However, the literature is not consensual at this point, and in other studies, price has not emerged as an important product attribute of TFPs (Platania and Privitera 2006; Pieniak et al. 2009).

In sum, European consumers may trade off the inconvenience and the TFPs' higher prices in order to enjoy their unique taste and safety, reasons that linked TFP to a higher food product quality.

The aim of this study was to investigate Portuguese consumers' quality perceptions toward kid's meat from traditional *Cabrito da Gralheira* (PGI), considering the main factors valorized when buying this TFP. This knowledge is essential for the implementation of successful smaller-scale marketing strategies, namely, the communication of transparent messages, considering that the major part of the kid's meat from traditional *Cabrito da Gralheira* (PGI) is produced by small food businesses.

## 2.2 The Local Context and *Cabrito da Gralheira*: PGI

The Commission Regulation (EC) No. 1107/96 of 12 June 1996 recognized the PGI *Cabrito da Gralheira*. This appellation comprises chilled carcasses of kids obtained from Serrana breed goats (*Capra hircus*), which populate the northern area of Beira Litoral, Portugal. This Serrana breed is perfectly suited to the specific conditions of the area delimited by the Serrana massifs of Caramulo, Montemuro, Nave, and Lapa, over the quota of 700 m (EU Database of Origin and Registration 2011). 4373 goat breeders produce 230 tons of kid meat per year (Qualigeo GIs in the World 2011).

The area of development is confined to the municipalities of Arouca, Vale de Cambra, S. Pedro do Sul, Oliveira de Frades, Vila Nova de Paiva, and Castro Daire, in the Aveiro and Viseu districts (center interior of Portugal). As in other areas of Portugal, where the goat breeding is an important activity, these animals suit the marginal land areas very well, where they can graze on wild grasses and shrubs. This gives the meat its much appreciated and characteristic flavor (Qualigeo GIs in the World 2011).

The slaughter of animals (males and females) is made up to 1 year of age with a weight less than or equal to 10 kg. Refrigerated carcasses shall have the following characteristics: (a) weight by 6 kg, including head and pluck; (b) dark brownish red color; (c) meat texture, firm, hard, and rigid, very tough to cut; (d) grain, coarse and shallow; (e) smell, *sui generis*; (f) fat, yellowish, sparse distribution subcutaneous and perirenal abundant, velvety texture (EU Database of Origin and Registration 2011).

*Cabrito da Gralheira* (PGI) is a very tender and lean meat. It is pink in color and has a characteristic flavor which can be attributed to its natural diet. This kid meat is only sold as *Cabrito da Gralheira* (PGI). It is sold whole, with the offal prepacked separately and without the tail, the lungs, or the liver (EU Database of Origin and Registration 2011). It plays a leading part in the gastronomy of the delightful

Serrana of Beira Litoral because of its unique high quality. It also symbolizes many ancient traditions and local customs and is eaten at many popular and religious festivals such as at Christmas time and Easter time (Qualigeo GIs in the World 2011). The labeling shall meet the requirements of the legislation, which must include the words *Cabrito da Gralheira* (PGI), beyond the certification mark for their private inspection body and certification (EU Database of Origin and Registration 2011).

## 2.3 Material and Methods

### 2.3.1 Subjects and Questionnaire

This investigation used a survey methodology. 238 questionnaires were distributed from November 2009 to March 2010 at different professional meetings by the first author. The questionnaire consisted of 21 questions, organized into four groups including:

- (a) Sociodemographic consumer characterization
- (b) Consumption habits and purchase behavior of kid meat
- (c) Consumer knowledge of *Cabrito da Gralheira* (PGI)
- (d) Consumer attitudes toward *Cabrito da Gralheira*, evaluated through a set of eleven items concerning product valorization, using a 5-point scale, with 1, “not at all important,” and 5, “very important”

### 2.3.2 Statistical Analysis

Data on consumer attitudes toward *Cabrito da Gralheira* was analyzed using the principal components method to reduce the original items into different factors, with the process being optimized by means of a *varimax* rotation. Suitability of the data to fit under such procedure is taken through the Kaiser-Meyer-Olkin (KMO) measure of sample adequacy. High values (between 0.5 and 1.0) indicate factor analysis is adequate (Malhotra 2007) and through the amount of total variance that is explained by the factors. Moreover, the internal consistency of each of the resulting factors was inspected using the Cronbach’s alpha coefficient (Cronbach 1951). This allows measuring how well a set of items reflects a single one-dimensional latent construct.

Scores for the resulting factors were computed by averaging (unweighted) item ratings per factor, yielding values from 1 = “not at all important” to 5 = “very important.” Nonparametric tests of comparison were employed where necessary because of the skewed nature of the data, and correlations between the factors were investigated using Spearman’s correlation ( $r_s$ ). All statistical procedures were performed using IBM SPSS for Windows v.20 (IBM 2011).

## 2.4 Results

From the 238 distributed questionnaires, 173 were collected, with only 114 answering to all the questions related to consumer attitudes. Demographic details of the achieved sample are summarized in Table 2.1.

**Table 2.1** Demographic data and behavior and knowledge toward kid's meat

Variables	<i>n</i>	%
<i>Demographics</i>		
Sex ( <i>n</i> = 171)		
Male	112	65.5
Female	59	34.5
Age group ( <i>n</i> = 168)		
18–29 years	36	21.4
30–39 years	22	13.1
40–54 years	60	35.7
55+ years	50	29.8
Level of education ( <i>n</i> = 172)		
Basic level (up to 9 years of school)	48	27.9
Secondary level or technical course (up to 12 years of school)	66	38.4
Higher education	58	33.7
<i>Behavior</i>		
Consumption of kid's meat ( <i>n</i> = 173)		
Yes	148	85.5
No	25	14.5
Place of consumption ( <i>n</i> = 167)		
Home	135	80.8
Restaurant	32	19.2
Place of purchase <sup>a</sup> ( <i>n</i> = 169)		
Butcher shop	98	58.0
Hyper/supermarket	42	24.9
Other	80	47.3
Perceived preferred purchase format ( <i>n</i> = 155)		
Whole	58	37.4
Half parts	34	21.9
Quarters, trays, etc.	63	40.7
Acceptable price premium for <i>Cabrito da Gralheira</i> ( <i>n</i> = 146)		
Up to 5 %	55	37.7
Up to 10 %	66	45.2
More than 10 %	25	17.1
Consumption of <i>Cabrito da Gralheira</i> ( <i>n</i> = 173)		
Yes	113	65.3
No	60	34.7

(continued)

**Table 2.1** (continued)

Variables	<i>n</i>	%
Consuming <i>Cabrito da Galheira</i> for ( <i>n</i> =83)		
Less than 2 years	26	31.3
2–5 years	17	20.5
More than 5 years	40	48.2
<i>Knowledge</i>		
Do you know what a PGI is? ( <i>n</i> =173)		
Yes	124	71.7
No	49	28.3
Have you heard about <i>Cabrito da Galheira</i> ? ( <i>n</i> =173)		
Yes	119	68.8
No	54	14.5

<sup>a</sup>Multiple response question

**Table 2.2** Mean values (and standard deviation) of individual items and factors regarding consumer attitudes toward consumption of *Cabrito da Galheira*

<i>Factor/item</i>	Loadings	Mean ( $\pm$ std. dev.)
<i>Factor 1, perceived quality</i> (var. = 38.7 %; $\alpha$ = 0.78)		
Quality	0.78	4.3 <sup>a</sup> ( $\pm$ 0.8)
Juiciness	0.74	4.2 <sup>ab</sup> ( $\pm$ 0.8)
Taste	0.69	4.5 <sup>a</sup> ( $\pm$ 0.6)
Warrant	0.66	4.3 <sup>ab</sup> ( $\pm$ 0.8)
Tenderness	0.62	4.3 <sup>a</sup> ( $\pm$ 0.8)
<i>Factor 2, quality assurance</i> (var. = 15.1 %; $\alpha$ = 0.71)		
Quality assurance	0.79	4.3 <sup>ab</sup> ( $\pm$ 1.0)
Place of origin	0.76	4.0 <sup>b,c</sup> ( $\pm$ 1.0)
Food safety	0.58	4.3 <sup>a</sup> ( $\pm$ 0.9)
<i>Factor 3, tradition</i> (var. = 9.40 %; $\alpha$ = 0.65)		
Knowledge of the breed	0.84	3.8 <sup>c</sup> ( $\pm$ 1.1)
Knowledge of the production system	0.67	3.9 <sup>c</sup> ( $\pm$ 0.9)
<i>Animal health</i>		4.4 <sup>a</sup> ( $\pm$ 0.9)

Explained variance (var.) and loadings resulting from principal component analysis with *varimax* rotation

<sup>a,b,c</sup>Homogenous groups according to the nonparametric Wilcoxon test, at 95 % confidence level

Results showed that only a small fraction of the respondents is willing to pay a price premium above 10 %, which may be explained by the reduced number of consumers expressing a longer experience of consumption of *Cabrito da Galheira* (Table 2.1).

Ranking of the different attitudinal items toward valorization of *Cabrito da Galheira* consumption yielded taste as the most valued characteristic, together with animal health, meat tenderness, and meat quality (see Table 2.2).

Application of the exploratory factor analysis to consumer attitude data leads to the exclusion of one of the original 11 items and yielded three factors (Table 2.2),



which accounted for 63.2 % of the total variance and presented a KMO value of 0.789. The factors were named perceived quality, quality assurance, and tradition, all yielding a considerably high internal consistency, with Cronbach's alpha ( $\alpha$ ) values ranging from 0.67 to 0.78. Item on animal health was considered as a one-item factor due to its high mean value (Table 2.2).

Significant associations ( $p < 0.001$ ) were observed between all four factors, with Spearman's correlation values ranging from 0.313 to 0.479, with the most prominent values being observed between perceived quality and quality certification ( $r_s = 0.479$ ) and animal health and quality certification ( $r_s = 0.459$ ).

In general, there is no significant effect of the sample characteristics on the evaluated attitudinal factors. Women, in general, give higher ratings to all factors, and respondents with a high education level gave higher scores to quality assurance (Table 2.3). Those expressing the willingness to pay a higher price premium also evaluate perceived quality at a higher level. Contrarily to the expectations, respondents that have not consumed or/and not heard about *Cabrito da Gralheira* are the ones giving higher values for perceived quality.

**Table 2.3** Mean (and standard deviation) for perceived attitudes toward valorization of consumption of *Cabrito da Gralheira*, according to demographical, behavioral, and knowledge characterization of the sample

Variables (group size)	Perceived quality	Quality assurance	Tradition	Animal health
<i>Demographics</i>				
Sex				
Male (85)	4.3 <sup>b</sup> ( $\pm 0.6$ )	4.0 <sup>b</sup> ( $\pm 0.8$ )	3.8 ( $\pm 0.9$ )	4.3 <sup>b</sup> ( $\pm 1.0$ )
Female (42)	4.5 <sup>a</sup> ( $\pm 0.5$ )	4.5 <sup>a</sup> ( $\pm 0.5$ )	4.0 ( $\pm 0.8$ )	4.8 <sup>a</sup> ( $\pm 0.4$ )
Age group				
18–29 years (21)	4.4 ( $\pm 0.6$ )	4.4 ( $\pm 0.6$ )	4.0 ( $\pm 0.7$ )	4.6 ( $\pm 0.7$ )
30–39 years (14)	4.2 ( $\pm 0.7$ )	4.2 ( $\pm 1.0$ )	3.7 ( $\pm 0.9$ )	4.3 ( $\pm 1.0$ )
40–54 years (45)	4.3 ( $\pm 0.7$ )	4.2 ( $\pm 0.6$ )	4.0 ( $\pm 0.8$ )	4.5 ( $\pm 0.8$ )
55+ years (44)	4.4 ( $\pm 0.4$ )	4.1 ( $\pm 0.8$ )	3.8 ( $\pm 0.9$ )	4.4 ( $\pm 0.9$ )
Level of education				
Basic level (41)	4.3 ( $\pm 0.5$ )	4.0 <sup>b</sup> ( $\pm 0.8$ )	3.9 ( $\pm 0.7$ )	4.5 ( $\pm 0.7$ )
Secondary level or technical course (42)	4.4 ( $\pm 0.6$ )	4.4 <sup>a</sup> ( $\pm 0.6$ )	4.0 ( $\pm 0.8$ )	4.4 ( $\pm 0.9$ )
Higher education (45)	4.4 ( $\pm 0.6$ )	4.2 <sup>a,b</sup> ( $\pm 0.8$ )	3.7 ( $\pm 1.0$ )	4.5 ( $\pm 0.9$ )
<i>Behavior</i>				
Consumption of kid's meat				
Yes (120)	4.3 ( $\pm 0.6$ )	4.2 ( $\pm 0.7$ )	3.9 ( $\pm 0.8$ )	4.5 ( $\pm 0.8$ )
No (9)	4.6 ( $\pm 0.5$ )	4.0 ( $\pm 1.3$ )	3.6 ( $\pm 1.0$ )	4.4 ( $\pm 1.1$ )
Place of consumption				
Home (96)	4.4 ( $\pm 0.5$ )	4.2 ( $\pm 0.7$ )	3.9 ( $\pm 0.9$ )	4.5 ( $\pm 0.8$ )
Restaurant (31)	4.1 ( $\pm 0.8$ )	4.1 ( $\pm 0.8$ )	3.7 ( $\pm 0.8$ )	4.2 ( $\pm 1.0$ )

(continued)

**Table 2.3** (continued)

Variables (group size)	<i>Perceived quality</i>	<i>Quality assurance</i>	<i>Tradition</i>	<i>Animal health</i>
<i>Perceived preferred purchase format</i>				
Whole (44)	4.3 ( $\pm 0.5$ )	4.1 ( $\pm 0.7$ )	3.9 ( $\pm 0.9$ )	4.4 ( $\pm 1.0$ )
Half parts (29)	4.4 ( $\pm 0.7$ )	4.3 ( $\pm 0.6$ )	3.9 ( $\pm 0.9$ )	4.6 ( $\pm 0.6$ )
Quarters, trays, etc. (49)	4.3 ( $\pm 0.6$ )	4.3 ( $\pm 0.8$ )	3.8 ( $\pm 0.8$ )	4.4 ( $\pm 0.9$ )
<i>Acceptable price premium for Cabrito da Gralheira</i>				
Up to 5 % (41)	4.2 <sup>b</sup> ( $\pm 0.5$ )	4.0 <sup>b</sup> ( $\pm 0.7$ )	4.0 ( $\pm 0.7$ )	4.5 ( $\pm 0.8$ )
Up to 10 % (62)	4.5 <sup>a</sup> ( $\pm 0.6$ )	4.3 <sup>a</sup> ( $\pm 0.7$ )	3.8 ( $\pm 0.9$ )	4.4 ( $\pm 0.9$ )
More than 10 % (24)	4.3 <sup>a,b</sup> ( $\pm 0.6$ )	4.3 <sup>a</sup> ( $\pm 0.8$ )	3.6 ( $\pm 0.9$ )	4.5 ( $\pm 0.7$ )
<i>Consumption of Cabrito da Gralheira</i>				
Yes (56)	4.2 <sup>b</sup> ( $\pm 0.5$ )	4.2 ( $\pm 0.6$ )	3.9 ( $\pm 0.7$ )	4.5 ( $\pm 0.8$ )
No (73)	4.4 <sup>a</sup> ( $\pm 0.6$ )	4.2 ( $\pm 0.8$ )	3.8 ( $\pm 1.0$ )	4.5 ( $\pm 0.9$ )
<i>Consuming Cabrito da Gralheira for</i>				
Less than 2 years (25)	4.2 ( $\pm 0.5$ )	4.3 ( $\pm 0.6$ )	3.7 ( $\pm 0.7$ )	4.4 ( $\pm 0.8$ )
2–5 years (17)	4.4 ( $\pm 0.5$ )	4.2 ( $\pm 0.7$ )	4.1 ( $\pm 0.6$ )	4.5 ( $\pm 0.5$ )
More than 5 years (39)	4.1 ( $\pm 0.6$ )	4.0 ( $\pm 0.8$ )	3.7 ( $\pm 0.9$ )	4.5 ( $\pm 1.0$ )
<i>Knowledge</i>				
<i>Do you know what a PGI is?</i>				
Yes (106)	4.4 ( $\pm 0.5$ )	4.2 ( $\pm 0.7$ )	3.8 ( $\pm 0.8$ )	4.5 ( $\pm 0.8$ )
No (23)	4.3 ( $\pm 0.7$ )	4.1 ( $\pm 0.7$ )	4.0 ( $\pm 0.9$ )	4.4 ( $\pm 0.9$ )
<i>Have you heard about Cabrito da Gralheira?</i>				
Yes (99)	4.3 <sup>b</sup> ( $\pm 0.6$ )	4.2 ( $\pm 0.7$ )	3.9 ( $\pm 0.8$ )	4.4 ( $\pm 0.9$ )
No (30)	4.6 <sup>a</sup> ( $\pm 0.5$ )	4.3 ( $\pm 0.8$ )	3.9 ( $\pm 0.9$ )	4.6 ( $\pm 0.7$ )

<sup>a,b</sup>Homogenous groups according to the nonparametric Mann–Whitney test, at 95 % confidence level

## 2.5 Discussion

The purpose of this research was to evaluate Portuguese consumer quality perceptions toward kid's meat from traditional *Cabrito da Gralheira* (PGI), considering the main factors that they valorized when buying this TFP.

It emerges that a vast majority of the interviewed consumers have already consumed kid's meat. They bought this meat product from specialized retailers (butcher shop), and they prepare and consume this kind of meat at home rather than consuming at restaurants. One may suspect that considering kid's meat, these consumers use strategies to minimize their risk perception in order to make a safe purchase and consumption, respectively. This approach is in accordance with the psychometric paradigm (Slovic 1993), in the sense that consumers associate greater risk with circumstances and practices which they perceive are controlled by others, such as eating in restaurants, compared with situations in which they have perceived control, such as preparing and eating food at home (Yeung and Morris 2001), namely, kid's meat.

Additionally, consumers of this study were aware of the PGI denomination for typical *Cabrito da Gralheira* and knew its distinctive PGI label. This is consistent with the fact that consumers from Southern countries are more familiar with the EU system of geographical indications, as these countries present the highest number of registered products with a geographical indication (EU Database of Origin and Registration 2011) and where culinary traditions and TFP are prominent in society (Becker 2009; Pieniak et al. 2009; Guerrero et al. 2010; Vanhonacker et al. 2010b).

Nevertheless, only 65.3 % of the interviewees have already bought *Cabrito da Gralheira* (PGI), probably due to its high price and restricted distribution. In fact, less than half of respondents were able to pay a price premium of 5–10 % for this product, sustaining that price could be a barrier for buying of more TFP (Chambers et al. 2007).

Furthermore, preferred format for purchase of *Cabrito da Gralheira* (PGI) usually was as a whole piece (refrigerated carcasses present a maximum of 6 kg, head included), followed by half parts, revealing that *Cabrito da Gralheira* (PGI) is associated with collective consumption. In fact, particularly in Portugal, kid's meat is associated with a strong traditional and festive consumption, namely, at Easter and Christmas (Rodrigues and Teixeira 2009). In fact, the general image of TFP may be typically described as special occasion foods rather than everyday foods (Guerrero et al. 2009, 2010), even if they can be consumed in ordinary and everyday meals (Vanhonacker et al. 2010b; Almlí et al. 2011).

Next, the results indicated that regarding *Cabrito da Gralheira* (PGI), taste, animal health, the meat tenderness, and the quality of the product were the most valorized factors by interviewees. This corroborates Cayot (2007), who proposes that consumers demand for safe and tasteful TFP. In fact, TFP are usually bought due to their special taste and quality (Platania and Privitera 2006; Ittersum et al. 2007; Vanhonacker et al. 2010b), and for European consumers, these products may be distinguished and known because of its sensory proprieties and high quality (Sanzo et al. 2003; Iaccarino et al. 2006; Chambers et al. 2007; Guerrero et al. 2009, 2010; Almlí et al. 2011).

Through principal component analysis, three main components were retained and identified as “perceived quality,” “quality assurance,” and “tradition.” This means that *Cabrito da Gralheira* (PGI) is perceived as a product with an assured quality and a product linked to knowledge of production systems and animal breed. As referred by Ittersum et al. (2007), consumers have a favorable image of regional certification labels, which significantly influences their willingness to buy TFP, through consumers' quality perceptions. The quality assurance enhances the perceived quality of TFP, while tradition strengthens their attitudes connected with cultural knowledge, framed globally on agriculture tradition approach (Platania and Privitera 2006). These findings are in accordance with Guerrero et al. (2009) in the sense that consumers perceived TFP in opposition to processed food products, from whom little or no processing or manipulation has occurred after a primary production, thus preserving their natural proprieties.

Evaluation of the *Cabrito da Gralheira* (PGI) factors at the individual level, in socioeconomic terms, showed that women had the highest level of the three factors.

This emphasizes the role of women, in Southern countries, as the gatekeepers of the household food domain (Moura and Cunha 2005). Additionally, “quality assurance” is less valorized by interviewees with low level of education, probably reflecting their lack of knowledge to evaluate a food quality assurance scheme. Unexpectedly, consumers who have never eaten *Cabrito da Gralheira* (PGI) gave more importance to “perceived quality” than experienced consumers. This could be explained by the fact that they have higher expectations regarding the product quality with a PGI designation. According to Hofstede (2001), the effects of regional certification labels may be larger for consumers who are unaware of TFP certification. Finally, as expected, respondents who were not able to pay more for *Cabrito da Gralheira* (PGI) did not valorize “perceived quality” and “quality assurance” factors. In making their buying decision, these consumers probably give less attention to quality criteria and more to other factors, such as price, for instance. In fact, from other studies, price emerged as a barrier to TFP purchase (see Sect. 2.1.2).

To sum up, consumers’ valorization of *Cabrito da Gralheira* (PGI) is related to high perceived quality and safety and traditional production process. These dimensions are those taken on EU system to protect and promote TFP (see Sect. 2.1) and confirms previous European studies, revealing a positive TFP consumer image (Guerrero et al. 2009, 2010; Vanhonacker et al. 2010b; Almlí et al. 2011). Thus, this industry is encouraged to maintain high-quality standards in order to develop favorable product attitudes, as proposed by Ittersum et al. (2007) and Almlí et al. (2011) in a TFP general context. Nevertheless, more primary producers should adopt an efficient commercialization system through the producer group activity in order to ensure a sustainable *Cabrito da Gralheira* (PGI) production and increase sales volumes.

The authors stress that the findings obtained in this research are not generalizable to a larger population, considering the convenience nature of the sample.

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