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Perceptions and Preconceptions about Chicken and Pork Meat: A Qualitative Exploratory Study of Argentine Consumers in the Metropolitan Area of Buenos Aires

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Abstract: In the past, the Argentine livestock production system was based on the extensive breeding that used pastures. However, technological progress and the use of land for soybean production are leading to a strong intensification of beef production, with a negative impact on the environment. According to FAO data, Argentina has the third highest meat consumption in the world, half of which is beef. A change in diet is a long and difficult process. The first step in favor of the environment could be the replacement of beef with other types of meat that have a lower impact on the environment, such as chicken and pork. The purpose of this study is to understand the causes limiting the preference for these alternatives and to identify useful tools to encourage their consumption. The results show that the interviewed Argentine consumers in the Metropolitan Area of Buenos Aires have preconceptions about these two types of meat, such as the fact that hormones are still used in the chicken production system, that pork has higher cholesterol content than other meats, and that it carries diseases. These products are instead appreciated for their practicality of use, especially when purchased in portions, and they are not only tasty but also cheap.

Keywords: consumer preferences; consumer perception; consumer preconception; Argentine consumers; pork consumption; chicken consumption; meat consumption; environment impact; discourse analysis; qualitative data analysis

1. Introduction

The lifestyles and food choices of consumers have a strong effect on the environment. There is widespread belief in the scientific community that a redistribution of global meat consumption would be beneficial to biodiversity, land and water use, as well as the climate, among others [1–4]. Nonetheless, there is no equitable distribution of food resources in the world; instead, we see hyper-nutrition in western economies and malnutrition or undernourishment in some developing countries. In light of this wide disparity in food consumption around the world, it could be particularly important to reduce consumption in those countries where meat consumption is very high, like the USA, Australia, and Argentina [5]. However, changing lifestyles and dietary patterns involves a long and not easy-to-accomplish process. Meat consumption is strongly linked to the increase in the purchasing power of populations, the ease of preparation of meat products, the versatility of animal proteins, ethical or religious beliefs, and tradition [6,7]. In some countries, including Argentina, beef consumption is a national culinary tradition.

The environmental impact of animal protein production varies according to the species bred and the type of production system [8,9]. Extensive and organic farming practices are less harmful to the environment than conventional production systems [10]. Likewise, some species, like chicken and pork, have a lower environmental impact than intensive cattle breeding [8,11]. However, in accordance with Poore and Nemecek [4], these claims must be seen in light of the wide heterogeneity that characterizes the agricultural sector, which sees a high variability among producers in similar geographic regions, which is even more marked among producers in countries with developed and emerging economies.

The extensive Argentine animal breeding system is changing and intensifying. Technological advances, the expansion of agricultural borders to extra-pampa areas, and the development of soybean monoculture have pushed toward the intensification of livestock [12]. Since the 1990s, feedlots or fattening in farmyard have begun to be implemented [13,14], and are also promoted by state aid (Resolution 4668 of 2007 of the National Office of Agricultural Commercial Control [15]). The number of fattened bovine animals in the farmyard went from 1.2 million in 2007 to 2 million in 2009 [16], representing about 35% of the red meat consumed in the domestic market in 2019 [17]. The food choices of consumers and the attention they can pay to the choice of producers, avoiding high impact producers, can play an important role in helping to mitigate the environmental impact of production [4]. Choosing a more environmentally-friendly livestock product may mitigate environmental costs and stop or slow down the intensification process. Replacing beef with meat from animals that make more efficient use of natural resources could be a first step in gradually changing food styles. However, there are socio-cultural preconceptions that limit the consumption of some products [18,19].

Argentina has a total consumption of animal proteins above the average of the Mercosur countries and one of the highest in the world [20]. In 2019, the apparent annual per-capita consumption was 14.6 kg of pork, 43.2 kg of chicken, and 51.6 kg of beef [5]. In the last thirty years (1990–2020), national per-capita consumption has been characterized by a dynamic of substitution between species, with a negative tendency for beef, strongly positive for avian meat, and stable in pork meat, thus altering the traditional structure of meat consumption [21].

There is also a global increase in the consumption of chicken and pork meat due to several factors, such as the healthy connotation of chicken meat [22–25], the perception of a lower risk of these meats than red meat [6,26–28], and the economic factor [3,18].

Unexpectedly, the increasing consumption of chicken meat at the Argentine national level occurs concomitantly with conflicting discourses on the characteristics of the product that affect the creation and subjective appreciation of the product itself. Similarly, there are popular perceptions and beliefs about pork in the Argentine population (high-risk perception and high-fat content, among other aspects), which seem to limit growth in the national consumption of pork.

A study conducted in Buenos Aires in 2015 by Sánchez et al. [29] highlights the presence of popular beliefs regarding chicken among medical doctors. The popular belief that commonly consumed chicken contains hormones or other substances to accelerate its growth goes back a long way. Some studies carried out between 2003 and 2009 [30–34] highlighted the same perception among consumers, but since then the law has changed (Decree 4224/1961 of the National Executive Power [35]; Resolution 977/2000 [36] and Resolution 447/2004 of the Ministry of Agriculture, Livestock, Fishing, and Food [37]) introducing a ban on the use of hormones. At the same time, there seems to be a great awareness about the consumption of chicken meat, and the scientific community has established that it is one of the healthiest meat products, together with fish [38]. Furthermore, economic attributes are also enhanced and supported by positive expressions [39].

In 2004, Marotta [40] showed that the Argentine consumer classifies pork as heavy, greasy, high-calorie, dangerous food, with a possible association with diseases and parasites. For example, the Institute for the Promotion of Argentine Beef (IPCVA) and TNS Gallup in 2005 [31] mentions trichinosis, a disease that consumers often associate with pork production. In a 2009 study, Mouteira et al. [41] indicated that the main motivation for pork consumption in Argentina was taste and found a divided opinion among the population examined, with consumers perceiving

different degrees of the fatty attribute, from lean to very fatty meat, resulting in a perception of unhealthy meat. The discourses or social beliefs involved in the construction of the perception of product quality influence the purchase, limiting or expanding it, because they are the "result of social processes of production of meanings, which leave traces, clues, elements, which exceed the will and conscience of individuals" [42]. This work aimed to verify whether there are still negative and positive perceptions on two types of meat with lower environmental impact than beef, chicken and pork, and to identify communication policies or strategies that may encourage the purchase of these two types of meat and modify the consumption patterns in favor of the environment. In the literature, research on the Argentine consumers' perceptions of food conducted through the in-depth study of consumer discourses is scant, in particular for undifferentiated, unbranded, or low-industrialized foods. For the purpose of filling this gap in the literature, the discourse of a restricted group of consumers in the Metropolitan Area of Buenos Aires, Argentina, was studied by applying a qualitative analysis of computer-assisted discourse (Computer Assisted Qualitative Data Analysis Software—CAQDAS) [43].

2. Materials and Methods

The use of language is inherent to human social activities; therefore, discourse analysis allows us to understand the social behavior of the people who produce these discursive practices [44]. Through discourse, consumers express their perceptions and beliefs as well as preferences for the purchase or use of products that should translate into consumer behavior. To achieve the objectives of this work, the "consumer's voice" was studied in the Metropolitan Area of Buenos Aires, and the relevant attributes of the consumers' discourse on chicken and pork meat were identified through qualitative analysis (CAQDAS).

The qualitative analysis was based on the 1967 Grounded Theory by Glaser and Strauss [45]. This involves the need to collect cases incrementally, following theoretical sampling. This is done by selecting an initial case, jointly coding and analyzing the data, then continuing to include additional cases and collecting the data to develop the emerging theory [45]. Unlike quantitative research sampling, theoretical sampling cannot be planned before one embarks on a grounded theory study. Specific sampling decisions evolve during the research process itself [46]. The main nodes appear during the initial collection, and the continuation of the collection serves to saturate them with information or create other emerging nodes or sub-nodes [45]. Not all nodes are equally important; therefore, the amount of information revealed by each one does not have to be the same. The nodes with the highest explanatory power, in terms of thematic importance, are those that should be saturated as much as possible, and then data should continue to be collected until "theoretical saturation" is reached, until the information is stable, or where the margin of data improvement becomes very small with new information. At this point, the data collection process ends [47], even if the number of respondents is small [48-51]. "The researcher's judgment becomes confidently clear only toward the close of his joint collection and analysis, when considerable saturation of categories in many groups to the limits of his data has occurred so that his theory is approaching stable integration and dense development of properties" [45].

The convenience sampling was done in March 2018 among adults (over 18 years of age), who were responsible for food purchasing and consumers of both products (chicken and pork) with an intermediate socioeconomic status. The first interviewee met these criteria and was a professional with training in food sciences. Therefore, the probability that the first survey would provide the main useful nodes for the analysis was high. The other consumers were randomly selected and interviewed in several supermarket chains, located in different parts of the Metropolitan Area of Buenos Aires. On average, two interviews were performed per day for about two weeks. During the months preceding the survey and during the two weeks between the first and last interview, there was no food scandal that could have altered in any way the perceptions of the interviewed consumers. The data were continuously collected and examined, day by day, until "theoretical saturation" was reached.

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Although this analysis step represents a case study and the results obtained cannot be generalized to the entire Argentine population, this study is an innovative contribution seeking to fill an information gap and may contribute to designing policy tools.

The interviews were administered face to face with the help of an electronic device (tablet or notebook). Participation in the survey was completely voluntary. The interviewees were informed about the purposes of the investigation, the confidentiality of the data provided, the topics to be covered, and the approximate duration of the interview.

The survey was divided into two sections (Table 1): In the first section, the respondents were asked to speak freely (without word or time limits) on the "positive" and "negative" attributes of chicken and pork meats; in the second section, the respondents were asked closed-ended, single-choice questions, according to the criteria of the Argentinian Society of Marketing and Opinion Researchers [52] to determine the socioeconomic level index (gender, age, area of residence, level of higher education achieved, and employment status—worker or non-worker).

Table 1. Interview scheme.

First Section	1. Question: Do you buy and consume chicken and pork? 2. Question: Can you describe the positive and negative attributes of these two types of meat and the reasons why you buy and consume them? (Remember that there are no right or wrong answers. We are interested in knowing your opinion. You can speak freely, as there is no time limit. You can tell us what you think and what comes to mind)
Second Section	Socioeconomic questions: gender, age, residence area, highest level of education achieved, and employment status

Using Microsoft Excel, a database was set up, reporting verbatim the responses of interviewees. The expressions were consolidated in their semantics and spelling. The information thus organized was analyzed and processed with NVivo 12 Plus Edition software from QSR International: 2019 [43].

At first, in the general discourse, the "Word Frequency (fp)" was analyzed to have a broad vision and identify the most commonly used words (those that appeared the greatest number of times). The identified words had to have a minimum length of three letters, and the "derived words" were also included (words with the same root grouped by the software, such as prepare/prepared/preparing/preparation). In the procedure, those words considered "empty of meaning", or not representative of concepts referring to the analysis carried out (articles, prepositions, common verbs, etc.) were deleted. Successively, the nodes were created by separating the general discourse into nodes of positive and negative attributes for pork and chicken. The fp within each node was analyzed to obtain more details about the discourse in favor and against the characteristics of each meat.

Subsequently, the analysis was continued within the nodes, and the minor grammatical structures (phrases or a part of them) considered to belong to more specific thematic subcategories were identified and manually coded to create the sub-nodes. The *f*p within the sub-nodes was also analyzed to identify the various drivers of the thematic subcategories, which are useful for planning commercial and/or communication strategies.

Finally, the "text search" analysis was carried out to verify the content of the discourse before and after the relevant words to identify the context in which they were used. The technique was used to analyze the spontaneous discourse in which the respondents compared pork and chicken attributes with those of other meat, including beef.

3. Results

3.1. Socio-Demographic Characteristics of the Sample

The sample was saturated with 20 interviewees, and the social and demographic characteristics of the sample are summarized in Table 2.

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Table 2. Sample characterization.

Variables	Number of Interviewees		
Gender			
Female	12		
Male	8		
Age			
18–25 years	0		
26–34 years	5		
35–42 years	1		
43–50 years	3		
51–60 years	6		
61–70 years	4		
71+ years	1		
Residence Area			
Metropolitan Area of Buenos Aires	20		
(AMBA)-Argentina			
Highest level of education			
Primary school	1		
Middle school	4		
High school	6		
3-year university degree	4		
5-year university degree or graduate degree	5		
Employment			
Unemployed	2		
Employed	15		
Retired	3		

3.2. Frequency of Words in the General Discourse

In the general pork and chicken discourse, the respondents frequently used 35 words (Table 3). These lexical items involved different word forms (nouns, verbs, adjectives, and adverbs) and had different thematic connotations. The word with the highest count was obviously "meat", named more than 50 times since the focus was on it. Two words with more than 20 mentions were "chicken" and "fat". Then, there were four words with between 18 and 15 counts each, including "pig", 11 words with between 15 and 10 counts, and finally 17 words with frequencies between 9 and 5 counts each.

Table 3. The 35 most frequent words in the general discourse of interviewees.

-	Most Frequent Words in General Discourse								
Position	Word	Count	Derived Words						
1	meat	54	meat, meats						
2	chicken	39	chicken						
3	fat	24	fat, fats, grease						
4	prepare	18	prepare, preparation, preparations, preparing, prepared						
5	cheap	16	cheap						
6	pork	15	pork, pig, pigs						
7	cook	15	cook, cooking						
8	cuts	14	cuts, cut						
9	beef	14	beef						
10	easy	13	easy						
11	like	13	like, liked						

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Table 3. Cont.

Most Frequent Words in General Discourse								
Position	Word	Count	Derived Words					
12	eat	12	eat, ate, eating					
13	flavor	12	flavor					
14	economical	11	economical					
15	tasty	11	tasty					
16	consumption	11	consumption, consumed, consume					
17	way	10	way, ways					
18	price	10	price, prices					
19	negative	9	negative					
20	hormones	9	hormones					
21	cow	9	cow, cows					
22	good	8	good					
23	buy	8	buy, bought, buying					
24	proteins	8	proteins, protein					
25	delicious	8	delicious					
26	cholesterol	7	cholesterol					
27	quick	7	quick, quickly					
28	bad	6	bad					
29	quantity	6	quantity					
30	dry	6	dry, dried					
31	water	5	water					
32	skin	5	skin					
33	sometimes	5	sometimes					
34	heavy	5	heavy					
35	healthy	5	healthy, health					

Note: Derived words equal to or longer than 3 letters were included in the analysis of the most frequent words.

3.3. Creation of Nodes

To understand the concepts that consumers have on pork and chicken, the analysis was deepened by dividing the characteristics into positive attributes, which guide and promote consumption, and negative attributes, which limit and/or prevent it. The general discussion was divided and analyzed by type of meat and each, in turn, was divided into two nodes, resulting in the following attributes: Pork Meat Positive Attributes (A+) and Negative Attributes (A-); Chicken Meat Positive Attributes (A+) and Negative Attributes (A-).

3.4. Word Frequency for A+ and A-

Within the nodes, a *f*p analysis was performed to obtain the first 10 most important words in the discourse. Figure 1 presents the cloud of A+ and A− of pork, and Figure 2 presents the cloud of A+ and A− of chicken; the size of the letters indicates their importance in the word count.

In the consumers' discourse on pork, the 10 principal words with positive connotations had a total of 49 counts, the word with the most counts being "tasty" (7 repetitions), followed by "cheap", "cuts", and "cook" (6 each), "fat" and "prepare" (5 each), "price" and "delicious" (4 each), and finally "economical" and "easy" (3 each). The words with negative connotations had 45 counts, the first being "fat" with 12 repetitions, followed by "cholesterol" and "cuts" (5 each), "eat", "heavy" and "prepare" (4 each), "nutrition", "controls", "flavor" (3 each), and "breeding" (2).

In the case of chicken, the top 10 words with positive connotations had a total of 60 counts, the word with the most counts being "easy" with 10 repetitions, followed by "cheap" (8), "economical" and "prepare" (7 each), "like" (6), "cook" and "protein" (5 each), and lastly "delicious", "quick", and "tasty" (4 each). In the A- discourse, there was a total of 47 counts, the most important count being "hormones" (9), "buy" (6), "water" and "skin" (5 each), "cook", "fat", "flavor", and "dry" (4 each), and "waste" and "like" (3 each).

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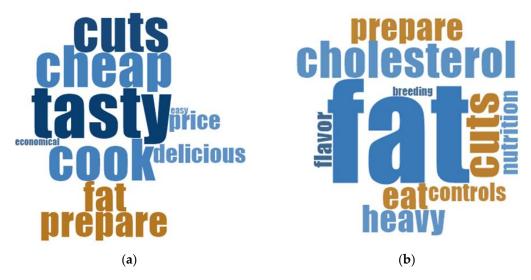


Figure 1. Pork Word Frequency Clouds: (a) Attributes + (b) Attributes -.



Figure 2. Chicken Word Frequency Clouds: (a) Attributes + (b) Attributes -.

The counts of the first 10 positive words for pork were much lower (49) than for chicken (60). For pork, the most frequently mentioned positive word was "tasty", favoring sensory evaluation, while for chicken it was "easy", favoring convenience. The first 10 negative words had almost the same number of counts for pork and chicken (45 and 47, respectively). Most negative words, "fat" for pork and "hormones" for chicken, were health-related concepts.

3.5. Creating Sub-Nodes

Within the discourse of each meat and type of attribute (A+ and A-), the sentences or phrases containing keywords and having thematic connotations were identified. Nine sub-nodes with different themes were coded and created, and they were sufficiently representative of the perceptions and qualifications or of the way of consuming meat, as follows:

Health issues: positive or harmful aspects of the health and nutritional aspects of each meat.

Sensorial experience: topics describing the organoleptic characteristics referring to taste, smell, consistency, and pleasant or unpleasant sensations.

Convenience: advantages or disadvantages during purchase, preparation, cooking, and/or consumption. **Economic valuation:** price or cost of the product.

Product appearance: options, types, varieties, or modalities in which consumers can buy the product.

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Acceptance of consumption: accordance with the choice or use of the product by the household.

Production system: ideas or concerns about the way of raising animals, their feeding, use of medications, and animal welfare.

Communication: beliefs or myths that the interviewees had about the products.

Product yield: product components that influence the utility or waste of consumption.

Most of the sub-nodes were created for pork and chicken in both positive (A+) and negative (A−) attributes, except for the "convenience of Use" sub-node, which was not created as A− for chicken, the "system of production", which was not created as A+ for chicken, and "communication", which was not created either for pork or chicken as A+ (Table 4).

Table 4. Number of references in Nodes and Sub-nodes.

Types of Meat	Key Nodes	Sub-Nodes	Number of References
		1. Health issues	13
		2. Sensory experience	12
		3. Convenience	12
		4. Economic valuation	14
	Attributes +	5. Product appearance	8
		6. Acceptance of consumption	11
		7. Production system	4
		8. Communication	0
Pork		9. Product yield	1
		1. Health issues	14
		2. Sensory experience	8
		3. Convenience	3
		4. Economic valuation	1
	Attributes –	5. Product appearance	5
		6. Acceptance of consumption	3
		7. Production system	9
		8. Communication	8
		9. Product yield	1
		1. Health issues	16
		2. Sensory experience	17
		3. Convenience	15
		4. Economic valuation	15
	Attributes +	5. Product appearance	2
		6. Acceptance of consumption	9
		7. Production system	0
		8. Communication	0
Chicken		9. Product yield	2
		1. Health issues	12
		2. Sensory experience	9
		3. Convenience	0
	Attributes –	4. Economic valuation	3
		5. Product appearance	9
		6. Acceptance of consumption	11
		7. Production system	7
		8. Communication	8
		9. Product yield	10

Note: The most important references that gave rise to each sub-node for each type of meat are those represented in the clouds

The discourse on pork gave rise to 127 references (sentences or phrases), while that on chicken gave rise to 145. For pork, 75 references were positive and 52 negative, while for chicken, 76 references were positive and 69 negative. The positive references were similar for the two productions (75 for

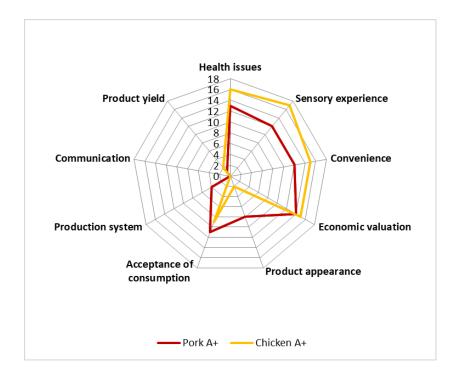
pork and 76 for chicken), while greater differences were found in negative references between the two types of meat (52 for pork to 69 for chicken).

The results for pork yielded more positive references in "economic valuation", "sensory experience", "convenience", "acceptance of consumption", and "product appearance". The "health issues" sub-node was particular, because it had almost the same number of references for A+(13) and A-(14). The sub-nodes "production system" and "communication" yielded multiple references in negative mode, but "communication" had eight negative references and no positive ones.

In the case of chicken, the sub-nodes "sensory experience", "convenience", and "economic valuation" had a greater number of positive references, with the particularity that the sub-node "convenience" did not present any negative mentions. Like in pork, "health issues" exhibited a contradictory discourse, with many positive (16) and negative (12) references. Another point of disagreement was the sub-node "acceptance of consumption" but with slightly more negative (11) than positive (9) references. The "product yield" sub-node yielded a higher frequency of negative references, and "production system" and "communication" only had negative references (7 and 8, respectively).

3.6. Comparison between Meat Types (Pork and Chicken) in the Sub-Nodes

For both pork and chicken meat, the sub-nodes "health issues", "sensory experience", "convenience", and "economic valuation" were positively evaluated, with a greater number of references for chicken than pork. In "acceptance of consumption", the evaluations were slightly greater in number for pork. A positive evaluation for "product appearance" was observed almost exclusively in pork (Figure 3).



 $\textbf{Figure 3.} \ \ \textbf{Comparison of positive attributes of pork and chicken in the sub-nodes}.$

In general, chicken meat had a greater negative connotation than pork, as it yielded a greater number of negative references in a greater number of sub-nodes than did pork (Figure 4). In six out of nine sub-nodes, chicken meat had more negative references (eight or more) as compared to four out of nine for pork. The number of negative references coincides, such as in the "communication" sub-node. The case of the "health issues" sub-node is particular because it is the one with the highest number of references for both types of meat, with a small difference that mainly penalizes pork.

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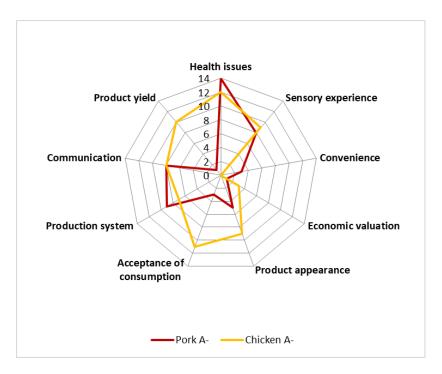


Figure 4. Comparison of negative attributes of pork and chicken in the sub-nodes.

3.7. Word Frequency in the Sub-Nodes

appearance

In order to highlight the main concepts for each sub-node underlying the consumer's mind and give a more specific connotation to the consumption/non-consumption drivers, the frequency of the words was calculated within each sub-node. The three most frequently mentioned words were identified, which should represent the fulcrum of the drivers on which to work to promote consumption and mitigate its limitations (Table 5).

	Pork				Chicken			
Sub-Nodes	Positive		Negative		Positive		Negative	
	Word	N.	Word	N.	Word	N.	Word	N.
	fat	5	fat	11	proteins	4	hormones	9
Health issues	lean	3	cholesterol	5	digest	3	unhealthy	3
	nutritious	2	heavy	4	nutrients	3	fat	1
Compositi	tasty	7	flavor	3	delicious	4	dry	4
Sensory	delicious	4	fatty	2	tasty	4	flavor	3
experience	flavor	2	dry	2	flavor	3	fat	1
	cook	6	prepare	3	easy	8		
Convenience	preparation	4	recipes	1	prepare	6		
	easy	3	know	1	cook	5		
	cheap	7	same -	1	cheap	9	cheap	1
Economic	price	5	price		economical	7	inexpensive	1
valuation	economical	3	-		price	3	economical	1
Duodust	cuts	6	cuts	3	pieces	3	whole	2
Product appearance	presentation	1	fat	2	compact	1	presentation	1

size

1

size

1

beaten

Table 5. Frequent words in each sub-node.

	Pork				Chicken			
Sub-Nodes	Positive		Negative		Positive		Negative	
_	Word	N.	Word	N.	Word	N.	Word	N.
A secondary so of	week	2	acceptance	1	acceptance	3	like	2
Acceptance of	outside	1	choices	1	appreciates	1	quality	1
consumption	love it	1	priority	1	quantity	1	frozen	1
B 1 4	nutrition	2	eat	4			production	3
Production	controls	2	breeding	3			breeding	2
system	diseases	1	nutrition	1			crowded	2
			fame	2			legend	1
Communication			image	1			myth	1
			press	1			press	1
	use	1	consume	1	yielding	2	water	5
Product yield			back	1	, 0		waste	3
			fat	1			reduced	2

Table 5. Cont.

Pork: "Economic valuation" turned out to be one of the main drivers of consumption, since the words cheap, price, and economical most frequently appeared in the consumers' discourse.

"Health issues" was the second most important driver, with conflicting ideas about fat content. Consumers perceived this meat to be very lean to fatty meat. The latter case is associated with consumers' fear of its cholesterol content, as this meat is believed to have a higher content of fat than beef.

Finally, its flavor and practicality of use were positively valued, as different types of cuts are available on the market, allowing ease of preparation and variation in meals.

The consumers expressed concerns about the "production system", characterizing it persistently as having a bad reputation, bad image, and bad press, especially as regards the type of feed and hygienic-sanitary management. However, some consumers recognized that the type of feeding and control of animals in the production chain, including disease management, had improved.

Chicken: Positive "sensory experience" was the most important factor for chicken. The consumers acknowledged that this meat is good and tasty, although some respondents argued that it can sometimes be dry.

As in the case of pork, the "health issues" were very important, with chicken meat considered to be nutritious and easy to digest. However, consumers showed concerns about the presence of hormones and their use in the production chain, which denotes the presence of legends, myths, and bad press.

"Convenience of use" was also positively assessed, as chicken was described as easy to prepare and cook, but at the same time, the "product yield" was criticized for the amount of water it has, which reduces the size of meat during cooking, in addition to waste linked to skin, bones, and viscera. Despite these drawbacks, it was considered a product with a good "economic valuation", as it is cheap or economical.

3.8. Comparison with Other Meats

The discourse was analyzed to determine the comparison between the types of meat studied with other types of meat, e.g., bovine or fish, both positively and negatively. The most representative sentences are presented in Table 6.

Type of Meat	Attributes	Sub-Nodes	Number of References	Representative Phrases
Pork -		Health issues	4	"It has the advantage that it is healthier than beef and chicken" "They say that according to the cuts, it doesn't contain as much fat as beef"
	Positive	Convenience	1	"It cooks faster than beef"
	Tostave	Economic valuation	12	"It is cheaper than beef" "It is also meat with a lower price than other meats such as bee or fish"
		Acceptance of consumption	2	"I like chicken and pork better than beef" "It is a substitute for beef"
	Negative _	Health issues	3	"It is heavier and has more fat than other meats"
		Economic valuation	1	"Some cuts are as costly as beef"
Chicken _		Health issues	2	"Chicken is as nutritious as beef and provides protein." " it is easier to digest than beef"
	Positive	Economic valuation	5	"It is cheaper than beef" "Chicken meat is cheaper than other sources of animal protein."
		Acceptance of consumption	1	"Acceptance of consumption, in general, there are more people who consume chicken, than pork or beef"
		Health issues	1	"The lower proportion of protein compared to other types of meat is negative"
	Negative	Sensory experience	1	"Other negative aspects are those related to flavor compared to other types of meat"
		Economic valuation	1	" it is cheaper than other meats"

Table 6. Comparison of pork and chicken with each other and with other meats.

4. Discussion

The positive attributes that guide and favor the consumption of pork, in addition to the economic valuation, are linked to the organoleptic properties that position this meat as tasty and delicious. This characteristic is technically also due to the amount of fat contained in it. A peculiarity found in the discourse on pork was that some respondents mentioned the presence of fat as a positive attribute or appreciated the lesser amount of fat or the presence of "good fats", as opposed to others who identified it as the main negative attribute, not so much in terms of the sensory experience, but rather in terms of health. Another important positive property was deemed to be the versatility of this meat within the "convenience of use" sub-node, highlighting the presence on the market of different cuts associated with the different and easy ways of preparing and cooking it.

These results confirm the consumption dynamics reported in other studies carried out in different populations. In particular, taste was the most important factor affecting consumer satisfaction in all types of pork products (fresh and processed meat) [53]. The conflict over the preference differences in the level of fat in meat has also been studied, and a general preference has been found for lean pig over fat pig, with marked regional differences [54] and national differences (Japan or South Korea) [55], in which fatty pork was preferred or almost equally preferred to lean pork. Lastly, the trend toward "convenience" or its "suitability" has been a major influence on food purchasing habits, encouraged by a lack of time, or the possibility to prepare a variety of dishes [56,57].

The main negative factors that discourage pork consumption are health-related aspects. In particular, consumers have shown concerns about the fat and cholesterol content of pork. They mistakenly believe that pork has a higher cholesterol content than beef. As noted previously, fat content sometimes negatively affects the sense of taste, as it determines that meat is perceived as fatty and difficult to digest. Also, the perception of consumers about the production system has relative importance, which shows little confidence in the type of feed used and the breeding place. These aspects also confirm some perceptions of consumers from other countries. For example, the study by Verbeke et al. (1999) [58] indicates that consumers perceived pork to be less healthy and fattier than beef and poultry.

Concerning chicken, the positive drivers that push consumption are linked to organoleptic properties, such as good taste, which have contributed to improving the increase in consumption in recent years. Practicality is also recognized for this meat, highlighting the ease of preparation and the speed of cooking. Additionally, the possibility to buy pieces instead of the whole chicken promotes the purchase and improves the idea of product performance. Another positive aspect is its economic valuation, whereby chicken is recognized as economical meat, which undoubtedly encourages consumption. In addition, it is positively assessed in terms of health, as it is perceived as easily digestible meat, containing good nutrients and proteins.

In accordance with these results, qualitative studies have found that poultry tends to be perceived as healthier and less fatty than beef and pork, and that freshness, sensory factors, and perceived 'healthfulness' are the most important drivers of product choice [18,59]. Moreover, poultry is considered an excellent source of protein that is low in fat, nutrient-dense, easy to prepare, and liked by consumers [22].

The negative aspects that do not favor the consumption of chicken mainly focus on the degree of certainty or doubt about the presence of hormones in meat or about the use of hormones in the breeding system. The contradictory discourses are worth mentioning, as they depict chicken as unhealthy meat associated with the presence of hormones and fats. Another factor affecting chicken consumption is related to culinary performance. The industrial conservation processes used in Argentina cause the product to incorporate water, which is lost during cooking, thus reducing the size of the chicken and disappointing expectations. The waste generated by the constituent parts such as skin, bone, and viscera is also mentioned as a negative driver of performance. Contrary to the positive perception of some interviewees about flavor, some respondents described the fat content as a disgusting point. Another unpleasant organoleptic property is the dry consistency of the meat, which derives from the cooking method used or the type of piece consumed.

The concern of the consumer interviewed about the presence of hormones in chicken meat was observed in other studies carried out among European populations [18,60]. These results are inconsistent with the literature on white meat, which reports on the healthy properties of meat, including chicken [23,61].

The perceptions about pork and chicken meat have several aspects in common: they are considered economical, have advantages in terms of practicality of use, have good organoleptic characteristics, and show contradictions stemming from a lack of knowledge about their health-giving properties. The presence of hormones in chicken and of cholesterol in pork should be clarified. These aspects also coincide with the consumers' concerns about the production system and the way in which the animals are raised and fed. The product yield problem is particularly important only in chicken. From the comparison of these two types of meat with beef (more traditional and highly consumed in Argentina), the most cited attribute was the economic valuation, which highlights a better price of these meats compared to beef, but the healthiness characteristics of chicken (lower fat content and greater digestibility) were also recognized.

5. Conclusions

The aim of this study was to analyze the perceptions and preconceptions of Buenos Aires consumers with respect to chicken and pork meat, as potential alternatives to the highly consumed beef. The study had some limitations in the sampling methods, due to the reduced number of consumers randomly selected. However, this analysis should be considered a first step toward a wider investigation. Therefore, despite these limitations, some interesting insights have emerged, which encourage us to continue this line of research.

The qualitative discourse analysis allowed us to identify the positive and negative values of both types of meat, chicken and pork, and to highlight the possible consumption drivers on which to act to improve the productive, industrial, and commercial system. Future research may be able to surpass the limitations of this study by guiding the respondents' discourse through direct questions that include

environmental issues and the valuation of specific attributes that did not arise spontaneously in the discourse of the consumer interviewed. In the same way, research can be directed toward specific categories of consumers, namely differentiating by gender, age group, level of education, and financial status. A deeper analysis within the categories and the inclusion of younger consumers would make it possible to confirm the saturation of information found in this study.

Furthermore, in order to strengthen the results of this analysis, the next step could comprise a quantitative analysis. The administration of a written questionnaire to a representative sample of the population will allow us to validate the analysis technique by comparing the qualitative and quantitative results and to further deepen the study.

Despite these limitations, the information collected helped to develop a greater theoretical understanding of the area studied, useful for further research that could help to identify tools that improve the perception of the meat studied and the care of the environment.

Pork and chicken meat are recognized as cheap and practical, and as having good organoleptic characteristics. The fact that the consumer values these two types of meat positively helps to convey positive information about them and increase their consumption.

One of the most important aspects on which the productive sector should act is information on the production techniques. Foremost in this respect is the field of health. Although hormones were used in industrial chicken production in the 1950s, they have been banned in Argentina for many years (Decree 4224/1961 of the National Executive Power [35]; Resolution 977/2000 [36] and Resolution 447/2004 of the Ministry of Agriculture, Livestock, Fishing, and Food [37]). Therefore, it is a point that deserves clarification from the competent entities, since the consumer and the reference medical category continue to maintain the belief or perception of the presence of hormones in meat, leading to reduced consumption. Information is also a critical point regarding pork. The fat and cholesterol content in comparison to beef should be clarified. In both types of meat, beliefs or perceptions were also brought to light regarding the treatment of animals, in chicken associated with the raising and overcrowding of the animals and in pig associated with the dirty place where they are raised and the type of feed they receive. However, in the latter case, consumers recognized some improvement in animal feeding and food control.

Furthermore, the entire production-trade chain could add value to the products marketed because the consumers surveyed positively value the cuts or pieces of pork and chicken on offer. Working on the communication of these sectors at the private and public levels will contribute to eliminating the old and false beliefs or perceptions identified in the discourse (myths, urban legends, bad press, and so forth). The information must be endorsed by science so that it results in reliable knowledge in favor of the entire community, restoring the deserved better image of these two products and promoting the substitution of beef with other more sustainable meat products. This could favor the entire Argentine meat production system and the environment.

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