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Sensory perception of the fermented goat milk: potential application of the DSC method

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Abstract

Goat milk and its derivatives present proven beneficial health properties; however, some sensory aspects associated to consumers' expectations restrict the consumption growth for these products. In this work, fermented caprine milk formulations have been evaluated utilizing the methodology of Discourse of the Collective Subject (***D**iscurso do **S**ujeito **C**oletivo* – DSC) associated to sensory analysis, in order to evaluate the perception of fermented caprine milk by consumers. The physicochemical and microbiological requisites of the fermented milk formulations evaluated during the storage, were according to current legislation. The probiotic characteristics of evaluated formulations were preserved, presenting viable cells counts for *Lactobacillus acidophilus* LA-5, *Bifidobacterium* BB-12, and *Streptococcus thermophilus* higher than $1x10^6$ CFU/mL, along 28 days of storage. The Discourse of the Collective Subject results have shown that the typical taste and flavor, present in products derived from caprine milk, did not influence the purchase intention, which was expressive for all fermented milks. The Discourse of the Collective Subject has elucidated the consumers' perspective, determining then both, the consumers' profile and the factors interfering on the acquisition of fermented caprine milk.

Keywords: Discourse of the Collective Subject; caprine milk; consumer.

Practical Application: The Discourse Collective Subject affordable, innovative and the consumer opinion, and the purchase intent.

1 Introduction

The caprine milk and its derivatives have large potential for insertion in the growing ascension market of healthy food, as they present nutritional properties, high digestibility, and low capacity for allergic reaction induction, being therefore indicated to children, adults, elderly, and people with food restriction (Almeida et al., 2009; Villalobos, 2005).

Probiotic bacterias are potential CLA producers, and it has been employed in increasing ruminant animals diet in order to increase the production of CLA, which among other things is able to inhibit the initiation of carcinogenesis and development of tumors, strengthens the immune system and reduces risk of atherosclerosis in humans (Apás et al., 2015).

Dairy products represent the most important food segment alleging functional properties (Oliveira, 2009). The utilization of goat milk contributes for dairy market diversification, allowing for the development of fermented products with differentiated sensory characteristics, as compared to products based on cows' milk. However, particular characteristics of goat milk, such as its typical taste and flavor, which result from high levels of short chain fatty acids such as hexanoic (or caproic), caprylic, and decanoic (or capric) acid, effectively decrease its acceptance by populations unacquainted with its regular consumption (Alves & Boog, 2007; Cenachi & Pinto, 2012).

Enzymes such as proteases and lipases produced by microorganisms psicotroficos generate smaller called FFA compounds that increase the intensity of flavor in milk stored capric influencing the flavor and decreasing acceptance by consumers milk (Fonseca et al., 2013).

Both, the knowledge about consumers' food preferences and the evaluation of product prototypes, represent important tools for the identification of different segments of dairy market and their respective potentialities (Ribeiro et al., 2010). The anticipation of consumer acceptance or rejection, by means of the analysis of intrinsic (not sensory characteristics, such as physicochemical properties) and extrinsic (sensory characteristics) factors influencing consumer's behavior, contributes for the definition of a standard for identity, selection, and research & development of new products. The study of these factors, which are utilized by different knowledge areas and applied in the development or improvement of food products, makes

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feasible the strengthening of food industry in an increasingly competitive market (Minim et al., 2012).

The DSC is a method allowing to aggregate similar opinions, qualitatively dismembering the individual discourses into fragments representative of the collective thought (Lefèvre & Lefèvre, 2012). This method accesses the sensory perception and elucidates the consumer's impression respecting to product's acceptance, and his market expectations. The mechanisms able to pick up the consumers' necessities and expectations are tools endowed with power to evaluate the market potentialities (Chapaval et al., 2006; Dimenstein et al., 2010; Ribeiro et al., 2010). Some studies about the outgrowth of fermented caprine milk have been developed; however, it is necessary to give higher emphasis to consumer. Considering the importance of sensory perception and the perspectives of market insertion, this work has been developed with the purpose to improve the fermented caprine milk formulations and evaluate the consumer's response to them.

2 Materials and methods

The *in natura* caprine milk evaluation, that is, crude and the thermally treated milk, was developed according to parameters established at Normative Guideline # 37, which approves the Technical Regulation for Caprine Milk Identity and Quality (Regulamento Técnico de Identidade e Qualidade de leite de cabra – Brasil, 2000).

2.1 Microbiological analyses of goat milk

The microbiological evaluation of the thermally treated milk matrix was developed as described in the 4th Edition of the *Compendium of Methods for the Microbiological Examination of Foods* - American Public Health Association, 2001).

The microbiological evaluations of fermented milk were developed according to Normative Guideline # 46 (Brasil, 2007). The viability of microorganisms present at dairy culture, during the storage period, was developed according to *Standard Methods for the Examination of Dairy Products* (Frank & Yousef, 2004).

The probiotic bacteria of fermented milk have been identified and listed . The culture of *S. thermophilus* was determined using M17 agar, followed by incubation in anaerobiosis at 37 °C for 48 h corresponded to the count existing marketed products meeting regulatory aspects for the dairy industry (Batista et al., 2015). The viability of probiotic dairy cultures *L. acidophilus* and *Bifidobacterium* were measured using respectively primary MRS- maltose, followed by anaerobic incubation at 37 °C for 72 h and MRS - LP supplemented followed by anaerobic incubation at 37 °C for 3 days. The mean values obtained in counts were above the minimum established by the scientific community being able to attribute health benefits (Maganha et al., 2014).

2.2 Physicochemical analyses

The physicochemical tests were developed according to current legislation for fermented milks (Brasil, 2000). The analyses were done employing the analytical norms anticipated by Adolfo Lutz Institute (Instituto Adolfo Lutz, 2008).

2.3 Fermented milks manufacture

The milk was heated up to 90 °C, under constant stirring for 30 minutes; then, it was cooled to 43 °C for inoculation of cultures composed by microorganisms *L. acidophilus* LA-5, *Bifidobacterium* BB-12, and *S. thermophilus*, associated to Bio Rich® Yeast, in the concentration of 1%. The goat milk fermented with Bio Rich® Yeast was identified as Fermented Milk 1 (***Leite Fermentado 1*** – LF1). Sample LF2 was processed in the same way as the previous one, but with addition of insulin 3% (w/v) and saccharose 6% (w/v) during the thermal treatment step; and LF3 differs from LF2 by the addition of strawberry pulp.

2.4 Sensory analysis

Sensory acceptance tests were developed utilizing the hedonic scale, with 50 untrained tasters. The outlining utilized for the study was at random, 50 volunteer tasters, adults, of both genders, aged between 20 and 60 years, possessing educational level between undergraduate and graduate, and being accustomed to frequent consumption of yogurts based on cows' milk.

The tasters participating in the investigation consume, or have already consumed, products based on goat milk. Individuals with allergic history or intolerance to lactose were excluded from participation in the sensory analyses, as anticipated in the Informed Consent Form (ICF) approved by the Independent Ethics Committee/Institutional Review Board (IRB/IEC Consolidated Opinion # 525.257).

The hedonic test was conducted using hybrid 9-point scale (1 = not enjoyed immensely, 9 = liked a lot) for the attributes of acidity, aroma, flavor and texture (Dantas et al., 2016). Consumers received an evaluation form followed by the sample, they rated the sample for each attribute. The samples were coded with three digit numbers, served in plastic cups and presented in blocks to the tasters (Morais et al., 2014). The test was carried out at Brazilian Agricultural Research Corporation (EMBRAPA, CNP- Gado de Leite, 610 - Eugênio do Nascimento (ST), Juiz de Fora - MG, Brazil) in a single session; between each sample a little water was offered in order to leave the palate clean and free from another flavor that could influence the test. Each consumer decisions were based exclusively on the sensory characteristics of fermented milks offered as product information and formulation were not provided (Cruz et al., 2012).

2.5 Analysis by the discourse of the collective subject

The descriptive evaluation of qualitative cutoff was developed by means of structured interviews, being applied to the tasters of fermented goat milk participating in the acceptance test. The interviews average duration was 05 minutes. The applied technique was thematic analysis of discourse, utilizing three methodological figures – the 'Central Idea', the 'Key Expressions', and the 'Discourse of the Collective Subject'.

The DSC methodology was subdivided into several steps, including the utilization of a specific software for methodology application. For the building of collective discourses, the following processes were developed:

I. Key Expressions: pieces from the testimonies abridging the responses content;

II. Central Ideas: synthetic formulas identifying the senses from every testimony;

III. Categorization: central ideas obtained for every question are characterized by a letter. The software generates a listing of associated central ideas for every referred category;

IV. The DSCs: compilation of Key Expressions present in the subjects' response, which possess central ideas of similar sense. The generic statements from the enunciator's discourse that manifested a given theory or belief were discriminated as anchorage.

The results obtained in the physicochemical and microbiological analyses were statistically calculated by Analysis of Variance (ANOVA), and the averages comparison was developed by Tukey's test with significance level $p \leq 0.05$, utilizing the Assistat 7.7 beta software, register INPI 0004051-2. The data from hedonic sensory analysis were submitted to Analysis of Principal Components (***P**rincipal **C**omponent **A**nalysis* – PCA) (Nunes, 2013). The responses obtained by the methodology of Discourse of the Collective Subject (DSC) were analyzed and submitted to Qualiquantisoft® software.

3 Results and discussion

The microbiological analysis of crude milk, evaluated by plate standard count, presented satisfactory results (Brasil, 2000). The analyses of coliforms at 35 °C and coliforms at 45 °C resulted in counts lower than 3 NMP*/mL for the crude milk samples, absence of *Salmonella* spp. was also verified; demonstrating so the satisfactory hygienic-sanitary conditions of the goat shed supplying the goat milk utilized in the investigation (Brasil, 2000).

*NMP = ***N**úmero ***M**ais **P**rovável* or most probable number

The analyses done in the developed formulations presented results according to standards established in the current legislation, as demonstrated at Table 1.

The count of *S. thermophilus*, present in the dairy culture, was according to values established by current Brazilian legislation, which establishes the total count of viable lactic bacteria as, at least, $1x10^7$ CFU/mL in the final product, during storage period. The count values for the probiotic bacteria *Lactobacillus acidophilus* LA-5 and *Bifidobacterium sp*. BB-12 satisfied the parameters established at Normative Guideline # 46, the starter cultures in all the products were higher than 7 log cfu·g^{-1} (Brasil, 2007).

The physicochemical results of fermented milk are found at Table 2.

There was no significant difference between the values obtained for acidity and pH. The content of fat and proteins in the formulations is according to standards established by the legislation. The proteins concentration and fat content, associated to thermal pre-treatment, favor the product viscosity and positively impact the product sensory evaluation. As higher is the fat content, as denser is the clot; a fact due to influence of fat percent on the medium content of total solids (Sharker et al., 2000).

Table 1. Microbiological values obtained in fermented milks (***L**eites **F**ermentados* – LF) elaborated with goat milk.

Requisites anticipated at IN 37	Count in LF1, LF2, and LF3 samples	Acceptance criteria*
Plates standard count	< 3 CFU/mL	Maximum $5•10^4$ CFU/mL
Coliforms at 35 °C	< 3 NMP/mL	Maximum 0.4•10 NMP/mL
Coliforms at 45 °C	< 3 NMP/mL	Maximum 0.1•10 NMP/mL
Salmonella spp.	Absence	Absence

*Values defined at item 7.4 of Normative Guideline # 46 (Brasil, 2007).

Table 2. Average values obtained from physicochemical analyses of fermented milks, respecting to parameters anticipated at Normative Guideline # 46 (Brasil, 2007).

Analysis	LF1	LF2	LF3	IN 46
Acidity* (g of lactic acid/100 g)	0.73^a	0.74^a	0.75^a	0.6 to 2.0
Fat (%)*	3.2^a	3.2^a	3.1^a	3.0 to 5.9
Protein (%)	3.57^{ab}	3.52^b	3.64^a	Minimum 2.9
pH*	4.6^a	4.61^a	4.62^a	-
Total dry extract	12.38^b	12.49^b	13.87^a	-

Averages followed by the same letter in the line are not statistically different each other, at the significance level of 5%, according to Tukey's Test of Fermented Milk 1 (LF1), Fermented Milk 2 (LF2), and Fermented Milk 3 (LF3). IN 46 = ***I**nstrução **N**ormativa nº **46*** or Normative Guideline # 46. *Parameters required by that IN nº 46.

The caprine milk possesses low content of α_{s1}-casein and higher dispersion of casein micelles, forming an almost semi-liquid clot when utilized for production of fermented milks. The content of total solids increasing effectively contributes for a satisfactory consistency in the curd (Cenachi & Pinto, 2012).

The LF3 fermented milk presented higher value of dry extract; there was no significant difference between the LF1 and LF2 samples. In the milk standardization, the rising of total dry extract is obtained by addition of soluble solids, and this procedure when associated to concentration by evaporation, allows increasing the final product viscosity.

Studies have proven a fastness increase of fermented milks as a result of saccharose and soluble solids addition, and after their concentration by evaporation (Cenachi & Pinto, 2012). The use of inulin, or other fiber present in the fruit pulp also contributes to the improvement of fermented products texture goat (Costa et al., 2015).

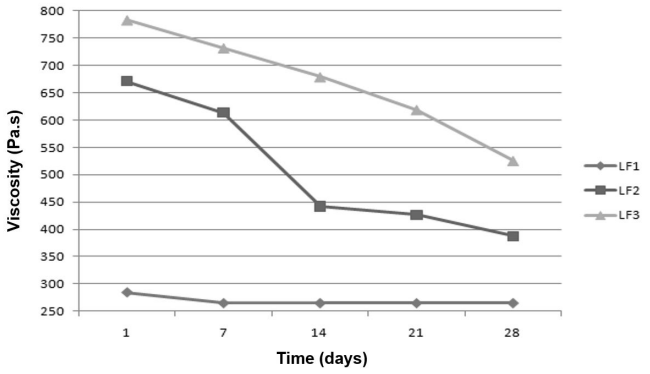
Figure 1 demonstrates the viscosity of fermented milks during the evaluated storage period. The samples with addition of soluble solids presented viscosity higher than that of sample LF1, which after the clot breakage presented high fluidity, differing so from the remaining formulations.

The results obtained in the sensory analysis of evaluated samples are found at Table 3 and Figure 2.

Table 3. Average results (n=50) of sensory acceptance evaluation of fermented milks (LF) samples.

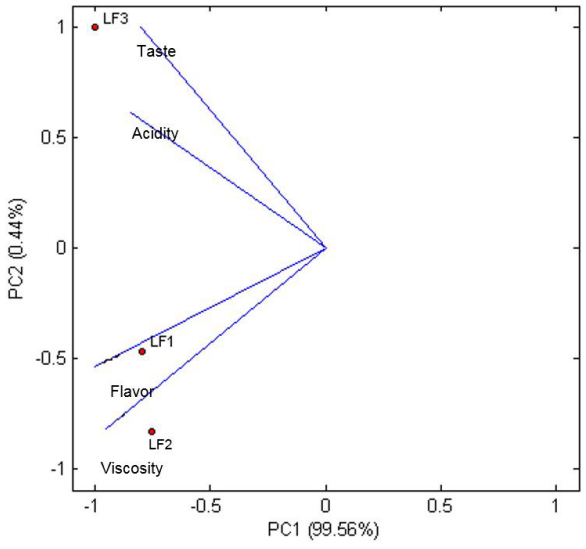
Attributes	LF1*	LF2*	LF3
Flavor	$6.42^{b} \pm 0.01$	$7.14^{b} \pm 0.01$	$8.28^{a} \pm 0.01$
Taste	$4.56^{b} \pm 0.01$	$5.2^{b} \pm 0.01$	$7.7^{a} \pm 0.1$
Viscosity	$5.02^{b} \pm 0.03$	$5.2^{b} \pm 0.03$	$7.78^{a} \pm 0.02$
Acidity	$6.66^{b} \pm 0.02$	$6.84^{b} \pm 0.02$	$7.62^{a} \pm 0.01$

Averages followed by the same letter in the line are not statistically different each other, at the significance level of 5%, according to Tukey's Test. Fermented Milk 1 (LF1), Fermented Milk 2 (LF2), and Fermented Milk 3 (LF3). *Fermented Milk without addition of fruit pulp.



LF1 – Fermented Milk 1, LF2 – Fermented Milk 2, and LF3 – Fermented Milk 3

Figure 1. Average viscosity values during the fermentation period of goat milk, 2014; (LF) Fermented Milk.



LF1 – Fermented Milk 1, LF2 – Fermented Milk 2, and LF3 – Fermented Milk 3

Figure 2. Biplot between the fermented goat milk samples and the evaluated sensory attributes.

The direction of greater variation - PC1 models 99.56% of the data matrix, while PC2 explain 0.44% of the data set variation relating the most significant attributes of the dimensions of data. Cluster analysis using vector model fits the data obtained in the hedonic scale aimed at their reduction, and a representative of shaped (Gaze et al., 2015; Matera et al., 2014).

LF3 sample presented the higher scores of all attributes (flavor, acidity, taste, and viscosity) evaluated in the hedonic scale. LF1 and LF2 samples were not significantly different from each other. The ACP results demonstrate that 'taste' and 'acidity' attributes are correlated to LF3 sample, and the 'flavor' and 'viscosity' attributes to LF1 and LF2 samples.

The average value obtained for the 'flavor' attribute, respecting to LF3 sample, corresponded to "I liked it very much"; and its 'taste' attribute was evaluated as "I moderately liked it". LF1 and LF2 samples presented the evaluation "I mildly liked it" and "I moderately liked it" for 'flavor', and the 'taste' was evaluated as "I neither liked, nor disliked it".

The metabolic products from dairy culture microorganisms influence directly the final product 'flavor' and 'taste'. The culture utilized was the same for all treatments, and insulin and saccharose were added to LF2 sample, to give it sweetness and increase the final product viscosity; however, 'flavor', 'taste', and 'viscosity' distinction has not occurred between LF1 and LF2 samples.

Increased 'acidity' could alter the 'taste' and 'flavor' profile of fermented milks, decreasing the products' acceptability. There was no significant difference in the perception of this attribute for LF1 and LF2 fermented milks. In the ACP, LF3 sample differed from the remaining ones. However, the obtained physicochemical results demonstrated that the titrated 'acidity' of fermented milks was similar, not statistically differing each other.

The attribute 'viscosity', respecting to LF3 sample, corresponded to "I moderately liked it"; and for LF1 and LF2 samples, it corresponded to "I mildly liked it" in the hedonic scale. In the physicochemical analysis, LF1 sample presented 'viscosity' different from that of the remaining ones; however, there was no 'viscosity' differentiation between LF1 and LF2 samples, according to hedonic scale.

Trained tasters presented abilities and perceptions differentiated from those of untrained tasters. For evaluation of consumer's acceptance in a given sample related to another one, the judges were untrained; highlighting so the importance of establishing the target public (Dutcosky, 2011).

The hedonic evaluation and ACP demonstrated that the insulin and saccharose addition has not influenced the 'flavor', 'taste', and 'viscosity' perception by untrained tasters; however, the physicochemical evaluation demonstrates difference between elaborated formulations. The difference perceived by tasters between formulations was noticed only, for the sample with fruit pulp.

Food habits and cultural standards influence directly the food's acceptability by consumers. The consumer perception, examined by DSC, presented substantial differences between developed formulations. The responses from tasters participating in the investigation are presented in the format of Discourse of the Collective Subject (DSC) and organized by answered question, in order to facilitate the comprehension.

The discourses more relevant to understand the applied methodology, or in other words, the discourses presenting higher scores, were selected and presented at Table 4.

Table 4. Central idea and Discourse of the Collective Subject from 50 sample tasters of the fermented goat milks, produced in this study as a response to the question: "*In your opinion, what is the difference between the product you regularly consume and the product you have just tasted?*".

Central idea (1)*	Discourse of the Collective Subject (1)
Difference is in the typical taste	"I have noticed that yogurt done with goat milk has a taste in the final. I imagine it is a result from the characteristic taste of goat milk; I think the taste and flavor are both quite different, very peculiar even. I noticed a stronger taste; the strawberry flavor dissembles a lot such taste; the goat milk flavor was quite dissembled."
Central idea (3)*	Discourse of the Collective Subject (3)
Difference is in the acidity	"I have noticed most the acidity. The difference is that it is a little bit sour, a little bit more acid than that which I regularly consume. I have mainly noticed it in the fermented milks without pulp; the acidity is higher in these products."
Central idea (6)*	Discourse of the Collective Subject (6)
The difference is in the taste and flavor	"Taste and flavor are both quite different. The main difference is in the taste; it is possible to notice that it is not fermented cows' milk. The taste of both "natural products" is quite strong."
Central idea (8)*	Discourse of the Collective Subject (8)
Strawberry taste is good	"I prefer the strawberry fermented milk. I though it is quite similar to the yogurt I regularly drink. I though its taste is lighter and delights me even more than that I regularly drink."

*It represents the central ideas shared with representativeness higher than 10% of interviewed tasters, after the acceptance tests of fermented goat milks.

The interviewed persons report in detail differentiated characteristics and sensations. Such a fact allows that, in the product elaboration process, positive points mentioned by the tasters can be considered in the formulation. The interviewed persons who did not like the fermented milks have done justifications about the strong and disagreeable taste, as compared to that of the regularly consumed fermented milk. The negative evaluation was noticed in the anchorage as identified at central idea 1, contributing so for the product evaluation.

The categorized interviewed persons noticed a typical taste in the fermented milks. This taste was softened at LF3 sample, by the fruits pulp. The ACP analysis has shown the distinction of LF3, related to 'taste' and 'acidity' attributes. Generally, when consumers describe the "taste", they normally are referring to the 'flavor'. The oral mucosa and tongue recognize five tastes: sweet, salted, acid, bitter, and the "*umami*". The taste is a mixed, but unitary sensation, which is more complex, as it involves other senses (Dutcosky, 2011).

The fermented milks LF1 and LF2 were classified by the tasters as natural, and differentiated themselves in the ACP analysis, for the attributes 'viscosity' and 'flavor'; however, the untrained taster perception in the DSC considered the 'flavor' and 'taste' attributes as pleasant in all the samples, with distinction for LF3. The strawberry taste disguises the typical caprine milk taste, improving the product acceptability . A similar result was obtained by Costa et al. (2014), the addition of fruit pulp increased sensory acceptance of the fermented goat's milk.

The processed fermented goat's milk maintains its original and characteristic taste; the fruit pulp incorporation benefits the milk flavor and taste decrease, contributing so to improve the product sensory characteristics (Marinho et al., 2012). This perception was noticed by the tasters, and reported in the DSC methodology application. The techniques that evaluate consumer perception as the method "pivot profile", gained ground in the field of sensory evaluation by presenting high correlation results with the classical descriptive methods (Fonseca et al., 2013).

The higher intensity of acid taste was pointed in LF1 and LF2 formulations. The acidity of LF3 sample was considered lower than that of frequently consumed fermented milks. The interviewed persons reported the motive by which they could consume the product, and which are the factors influencing their consumption decision. The obtained discourses allowed to know the consumers' profile, outline the strategic formulation, and gave a marketing direction to fermented milk commercialization. To better understand the wants and needs of consumers and product guarantee of success, Cruz et al. (2013) describe the use of descriptive sensory methodologies in the early stage of product development with multivariate profiles as probiotic yogurts.

Five reports have been obtained, and the reports presenting the higher scores are demonstrated at Table 5.

The DSC has indicated important points for the dairy market, as the interviewed persons emphasized the nutritional characteristics, the better product acceptance thanks to fruits pulp inclusion in the formulation, and the product price as characteristics influencing the acquisition recommendation by consumers. The pulp taste chosen for this product proves the strawberry pulp acceptability by different groups of persons, as well as its representativeness in the formulations of products addressed to dairy market as a function of its popularity (Oliveira, 2009). The wealth of information generated by the DSC application allows you to access a different cognitive interpretation of consumers since it does not limit the selection response or a specific evaluation. The questionnaire was able to generate additional and complementary interpretations of the classical methods (Santos et al., 2015).

The tasters perceived the typical taste of caprine milk; however, the intention of acquisition revealed by DSC was expressive for all fermented milks, revealing so the public expectation for this product. The goat's milk yogurt is an excellent source of nutrients and fatty acids, however the acceptance by consumers is limited because of its typical taste. The repeated exposure technique in food products with rejection history was employed in the study by Costa et al. (2014) with fermented goat milk probiotic with satisfactory results of consumer acceptance.

Table 5. Central idea and Discourse of the Collective Subject from 50 sample tasters of the fermented goat milks, produced in this study as a response to the question: "*Talk me about the possibility for you acquire, or recommend the acquisition of this product, if it is available in the market.*"

Central idea (1)*	Discourse of the Collective Subject (1)
Recommends it for those who know the benefits, and appreciate products derived from goat's milk.	"It is highly possible for me, to acquire and indicate this product if I know it well; I would acquire the product and recommend it, considering its nutritional benefits as a functional product, and considering the goat's milk properties respecting to allergenicity."
Central idea (2)*	Discourse of the Collective Subject (2)
Has appreciated and recommends fermented milks	"The probability is high; 100% of chance for my acquisition of this product in the supermarket shelf. I would recommend it, I didn't see any difference in goat's milk respecting to common milk, I really appreciated it. If the product is in the market, I will buy it. It is a different option, agreeable, more natural and without conserving agents; it is good also for people who cannot drink cow's milk; it is a good alternative, I think it is interesting."
Central idea (3)*	Discourse of the Collective Subject (3)
I recommend it, depending on the price	"I have no restriction. The possibility to recommend it, of course, will depend on its price. I would check the price at first, and if it is similar to that of the product I regularly consume, I would buy and recommend it."

*It represents the central ideas shared with representativeness higher than >10% of interviewed tasters, after the acceptance tests of fermented goat milks.

The multidimensional perception of sensory attributes is an application limitation for proposed new methodologies, the DSC methodology demonstrated a perception disassociated from consumers to different sensory attributes correlated in the hedonic scale (Pereira et al., 2016). The semi-structured technique employed in this study, allowed to evaluate the consumer expectations respecting a given product, because the interviewed persons talked about the proposed theme without any interviewer interference. The method enables the comprehension of acceptance, or not, of peculiar characteristics attributed to fermented goat's milk, as it becomes more clear and expressive the social representations, allowing the developed study group to become emitter of common discourses identified in the sharing of similar central ideas (Lefèvre & Lefèvre, 2005).

4 Conclusion

The addition of soluble solids, and the concentration by evaporation, affected the rheological parameters and increased the viscosity of fermented milks, influencing so the formation of a firm clot during the fermentative process.

The nutritional characteristics of fermented goat's milk have positively influenced the consumption decision for elaborated products. The formulation with fruit pulp expressed better acceptance, being that the typical flavor and taste of caprine milk has not influenced the consumers' intention of acquisition.

The DSC has been demonstrated as an important tool for identification of consumers' profile and the factors involved in the acquisition process of fermented goat's milk, serving also to determine its potentiality for inclusion in the dairy market.

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