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ABSTRACT

The Community-Supported Agriculture (CSA) is a movement characterized as an Alternative Food Network (AFN). This system is made possible by engaging individuals who commit to agricultural production and receive food quotas. This work aims to analyze the meaning of belonging to a CSA, among farmers and consumers. Such goal was pursued by two complementary empirical studies. In Study 1, fifteen members of six CSAs were interviewed regarding "what it means to be a part of a CSA". The responses were analyzed using textual analysis techniques with the Iramuteq software. In Study 2, a questionnaire was applied to 59 consumers from two CSAs in order to list the "meanings of being part" of a CSA. The data were described and assessed by agglomerative hierarchical cluster analysis, and the groups were compared using the Kruskal-Wallis test. Finally, the results of the two studies were analyzed. The interviewees perceived the sense of community, appreciation for the farmer, access to healthy food, and promotion of sustainability as important meanings. These are relevant insights for creating strategies within the context of AFNs, especially in order to attract consumers aligned with food citizenship.

Keywords: Community-Supported Agriculture (CSA), Alternative Food Networks (AFN), food citizenship.

RESUMO

A Comunidade que Sustenta a Agricultura (CSA) é um movimento caracterizado como uma Rede Alimentar Alternativa (RAA). A CSA é viabilizada pelo engajamento de indivíduos que se comprometem com a produção agrícola e recebem cotas dos alimentos. O objetivo deste trabalho é analisar o significado, tanto para agricultores quanto para consumidores, de fazer parte da CSA, por meio de dois estudos empíricos complementares. No Estudo 1, 15 membros de seis CSAs foram entrevistados sobre "o que significa fazer parte de uma CSA" e as respostas foram analisadas utilizando técnicas de análise textual pelo software Iramuteq. No Estudo 2, através de um questionário aplicado a 59 consumidores de duas CSAs, foram listados os "significados de fazer parte" de uma CSA. Os dados foram descritos e submetidos à análise de agrupamento hierárquico aglomerativo e os grupos foram comparados pelo teste de Kruskal-Wallis. Por fim, os resultados dos dois estudos foram analisados. O senso de comunidade, a valorização do agricultor, o acesso a alimentos saudáveis e a promoção da sustentabilidade foram percebidos pelos entrevistados como significados importantes. Estes são insights relevantes para a criação de estratégias dentro do contexto das RAAs, especialmente visando atrair consumidores alinhados com o conceito de cidadania alimentar.

Palavras - chave: Comunidade que Sustenta a Agricultura (CSA), Redes Alimentares Alternativas (RAA), cidadania alimentar.

INTRODUCTION

Traditionally, there have been reports of consumer concerns with ethical issues, fair trade, and organic foods, focusing on production methods and substandard working conditions (De Tavernier, 2012). However, consumers have also shown interest in broader aspects, such as food safety and the ecological impact of food (De Tavernier, 2012). Among these groups there are individuals deeply committed to the environmental and social sustainability of food systems (Lozano-Cabedo; Gómez-Benito, 2017). When well-informed and engaged, such consumers can be called food citizens — a concept that extends general citizenship to the food sphere (Lozano-Cabedo; Gómez-Benito, 2017).

In this context, food citizenship integrates various social actors, including consumers — who, by showing dissatisfaction with the functioning of the conventional food system, facilitate the emergence and operation of Alternative Food Networks (AFN) (Lehner, 2013). The AFNs are productive arrangements that improve market rules and empower agents across the food chain (Carolan, 2014), involving alternative sales points with differentiated distribution models that bring the producer closer to the end consumer.

There are different models of AFNs, and some studies have already sought to understand them under aspects of governance, motivations, and impacts (Denny; Worosz; Wilson, 2016). They are alternative agricultural movements that attempt to remake our food system in a more economical, socially just, local, and environmentally sustainable way (Schnell, 2007), presenting themselves as a social technology capable of being used as an instrument of change with real solutions for social transformation (Dagnino, 2011).

A significant aspect of these systems is recognizing how their participants are connected, not just their individual qualities. That is, successful models result from a process involving networks of producers, consumers and institutions, in continuous cycles of interaction and exchange (Lehner, 2013).

Community-Supported Agriculture (CSA), considered a global movement, is one of the most emblematic cases of AFN (Schnell, 2007). Through CSA, organic foods from family agriculture are offered directly to the end consumer, called a co-farmer in this model. CSA is related to the recognition of work in the field, the preservation of the environment, and the provision of products to co-farmers at a fair price (Lopes; Viana; Alfinito, 2020).

Tierling and Schmidt (2016, p. 5) point out that "spontaneous actions that promote solidarity, cooperation, and unity among people are common in rural communities". Such practices enable social integration, promoting mutual security in situations of difficulty, which can be linked to the adherence of farmers to Communities that Support Agriculture (CSA), aiming to generate opportunities for security and stability for those involved.

Producers and consumers (co-farmers) attribute meanings to being part of a CSA, and such meanings, if understood, can be used to inform and motivate more individuals to participate in the movement. The basis of CSA is the concept of food citizenship, which can mean justice and equity (Lozano-Cabedo; Gómez-Benito, 2017), allowing individuals to take care of their health and of the planet (De Tavernier, 2012). It can also mean access to the development of a local economy while maintaining the diversity and quality of food products (Lyson, 2005). However, there is a lack of studies aimed specifically at the Brazilian consumer that classify these meanings, which motivated the conduct of the present work.

RESEARCH PROBLEM AND OBJECTIVES

The research problem relates to the importance of transforming the governance of the food system into more resilient, fair, and balanced models (Escajedo San-Epifanio, 2015). Understanding the meaning of being part of a CSA is a worthy contribution to the research agenda, inviting us to investigate how AFNs operate and become successful (Lehner, 2013). It is still necessary to investigate the perception of individuals involved in CSAs in Brazil about the meanings of this movement, and the present work contributes to reducing this gap.

Considering the current economic situation in Brazil, which demonstrates the growing importance of family agriculture for the Brazilian economy, "efforts are necessary to seek solutions and alternatives for adjusting the quality of life in rural areas, in addition to improving income generation and development of these properties" (Andrade *et al*., 2014). A possible solution within the scope of CSAs involves generating employment and income, food security, and local and sustainable development.

The guiding purpose combines theoretical advancement and practical development of the system, enabling the attraction of new members, creation of new models, and maintenance of the current system. Therefore, the question that guides this work is: what does it mean, for farmers and consumers (co-farmers), to be part of a Community that Supports Agriculture (CSA)?

Two complementary empirical studies were analyzed using inductive logic to answer this question. The objective was to analyze the meaning, for farmers and co-farmers, of belonging to a CSA, pursued through the specific objectives of (a) identifying the main classes of meanings of belonging to a CSA for producers and co-farmers (Study 1) and (b) grouping co-farmers based on the meaning of belonging to a CSA (Study 2).

THEORETICAL FRAMEWORK

Food citizenship is a term that articulates that some consumers are increasingly aware of the impact of their choices, committing themselves to achieving a food consumption pattern compatible with their ideals. Food citizenship is related to the recognition of rights and duties related to food, which involve, for example, access, information, political participation, and a sense of justice (Lozano-Cabedo; Gómez-Benito, 2017).

Lozano-Cabedo and Gómez-Benito (2017) state that food citizenship is based on recognizing the social right to sufficient, healthy, and quality food. Moreover, they highlight the responsibilities that fall on the individual concerning their insertion in the food system, underlining the importance of awareness and active participation in the search for more sustainable and ethical food practices.

In this context, food citizenship is characterized by introducing innovative ways in food consumption (De Bakker; Dagevos, 2012), with individuals consistently making small decisions (Wilkins, 2005). In this process, food chain actors unite, acquire a sense of their rights to produce and consume food, and exercise these acquired rights (Sonnino *et al.*, 2016). Beyond rights, those involved also consider their duties to participate in the governance of the food system (Lozano-Cabedo; Gómez-Benito, 2017). Lastly, food citizenship is characterized as very inclusive, manifesting in individual and collective spheres and occurring in public and private environments (Lozano-Cabedo; Gómez-Benito, 2017).

Food citizenship foresees the network support of consumers and producers — for example, the system of short food supply chains, which are strengthened by the involvement and dedication of farmers and consumers and generate local socioeconomic development based on the importance of actors and agents in the construction and strengthening of marketing channels (Martins; Sonáglio, 2019).

Broadly, it can be proposed that food citizens share a passion for food and plants (De Bakker; Dagevos, 2012) and are connected to the planet and to other people (O'Kane, 2016). These are people with a high degree of empathy for others (Carolan, 2017), who carry values of care for the community and the environment (De Bakker; Dagevos, 2012). Individuals considered food citizens act reflectively and proactively (Lockie, 2009), guided by their preferences, interests, and concerns (Gómez-Benito; Lozano, 2014). These actions consist of coherent behaviors regarding food choices, eating habits, and food advocacy with the government (Gómez-Benito; Lozano, 2014).

Thus, food citizenship is a relevant issue that involves large spaces for discussion, as it is a relatively new and rising approach. A literature analysis on the field brings the perception that empirical aspects still need to be deepened and specified, especially when seeing the food citizen as part of consumption systems. It brings the need for additional research that explores specific interactions between food citizens and consumption systems, aiming to fill empirical gaps.

One of these systems is Community Supported Agriculture (CSA), a movement with almost three thousand communities in Europe (Volz *et al*., 2016) and more than six thousand in the United States (Woods *et al*., 2017). In Brazil, there are more than 100 CSAs (Meireles, 2018), with the Federal District holding a notable share of the national total and observing a growth of these communities: Brasília (DF) went from 17 CSAs in 2016 to 35 in 2020 (CSA Brasília, 2024). However, for CSAs and other AFNs to grow, it is necessary to favor individual access to information (Jacobs *et al*., 2011) and consumer engagement (Arbit *et al*., 2017).

Food citizenship foresees the network support of consumers and producers, and CSAs can serve as an example of this model, as they are strengthened by the involvement and dedication of farmers and consumers, generating local socioeconomic development based on the importance of actors and agents in the construction and strengthening of marketing channels (Martins; Sonáglio, 2019). According to Lopes, Viana, and Alfinito (2020), consumers are guaranteed healthy and sustainable products at the table, and it is a relevant model to be studied and strengthened, even in times of crisis.

METHOD

Two studies were conducted to achieve the proposed objectives, the methodological procedures of which are detailed below. It is important to mention that the Ethics Committee for Research in Human and Social Sciences (CEP/CHS) of the University of Brasília (UnB) has exempted studies involving questionnaires from formal approval, as stipulated by the Brazilian National Health Council's Resolution CNS no. 510/2016.

STUDY 1

The first study, exploratory and qualitative, collected data through face-to-face semi-structured interviews with 15 members from six CSAs in Brasília (DF), consisting of nine farmers and six co-farmers (consumers), between December 2019 and March 2020. The profile of participants consisted of nine women and six men, residents of different regions in Brasília (DF), aged 23 to 69 years old. Regarding the educational background of the interviewees, seven had postgraduate degrees (specialization, master's, or doctorate), two had completed higher education, four had completed high school, and two had incomplete high school or lower education.

Concerning the instrument, the interview script contained 14 questions about the meaning of being part of a CSA, as well as the motivations, information, and skills necessary to be a member of this type of community. The questions on motivations, information, and skills were mainly grounded in the IMB Model theory (Fisher *et al.*, 2006). This theoretical approach provides a valuable conceptual framework to understand the interrelations between Information, Motivation, and Behavioral Skills, offering a solid theoretical basis for analyzing behaviors. This study specifically focused on the deep analysis of the textual response to the question: "In a few words, what does it mean to you to be part of a CSA?". From this question, co-farmers and farmers from the CSA shared what it means for them to belong to a community of this movement. Thus, the central question of the data collection instrument sought to understand the meaning attributed by participants to involvement in a CSA.

Regarding procedures, the interviews were scheduled or obtained through face-to-face invitations to members, especially during the weekly meetings to deliver fruit and vegetable baskets at the conviviality points established by each CSA. All interviewees filled out an Informed Consent Form and authorized the recording of the interviews, which lasted from 9 to 48 minutes. The decision to conduct 15 interviews was based on the concept of theoretical saturation proposed by Bardin (2016), according to which theoretical saturation occurs when data collection reaches a point where new interviews do not contribute significantly to a deeper understanding of the phenomenon under study.

The interviews were fully transcribed and analyzed using the Iramuteq software (Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires). Iramuteq is a free tool for analyzing textual data, like those obtained in interviews, yielding results that indicate paths to be explored and interpreted manually (Salviatti, 2017). It integrates with the R software for performing statistical analyses and displaying graphs. In this study, R version 3.6.2 was used. The corpus (set of texts to be analyzed) was organized in Libre Office, and the text was standardized to UTF-8 (8-bit Unicode Transformation Format) and then imported into Iramuteq. Iramuteq organizes qualitative data into text segments (TS) and text regrouping (TR), performing statistical analyses from these elements (Salviatti, 2017). Thus, Iramuteq supports textual analyses that, in this study, focus on the descending hierarchical classification (DHC) and the factorial analysis of correspondence (FAC).

The DHC provides classes that can be defined as groups comprising various Elementary Context Units (ECU) of homogeneous vocabulary (Nascimento; Menandro, 2006). That is, each class groups similar elements which correspond to the same textual context. In this study, the classifications generated by the software were based on the Reinert model. The model proposes a hierarchical classification that displays classes of text segments (TS) with similar vocabulary, based on lexical proximity, and different from other classes, based on the chi-square test. In this analysis, Iramuteq processes the text to identify classes that allow for inferences on what ideas the textual corpus conveys (Salviatti, 2017).

The FAC, in turn, cross-references the vocabulary (considering the frequency of word occurrence) and the classes. This process results in a graphical representation, presented in a Cartesian plane, visually highlighting the oppositions between the various classes or forms in the textual corpus, as explained by Nascimento and Menandro (2006). The synergy between DHC and FAC techniques, supported by the software use, enabled an evaluation of the corpus content. This methodological approach provided analyses that supported elaborating descriptions of the identified classes through textual analysis.

This method provided a comprehensive and detailed understanding of the meanings attributed by participants to their participation in the CSAs, enriching the research with valuable insights on the motivations and perceptions of the members of these communities. We must stress some caveats regarding the translation from Portuguese to English. Firstly, two images in the document will remain in Portuguese, as this is the original language of the interviews from which the Iramuteq outputs were generated. Additionally, to facilitate the comparison between versions, it is noteworthy that the coding of the items in Table 1 are abbreviations in Portuguese. We have chosen not to alter these codes to English to maintain congruency throughout the document. This approach ensures that readers can accurately trace the origins and interpretations of the data presented despite the language translation.

STUDY 2

The second study, a descriptive research complementary to the first, was conducted using an online questionnaire for co-farmers from two CSAs in Brasília (DF), namely CSA1 and CSA2. The researchers developed the instrument in Google Forms. The dissemination was carried out among the CSA members through the CSAs' communication channels (email and messaging apps like WhatsApp). The questions aimed to understand the members' opinions, observing the meaning of being part of a CSA, their satisfaction with the food baskets, and preferred forms of interaction. The survey regarding the 2019 harvest took place between the end of January and the beginning of March 2020, and the present work centered the analysis on the question about the meaning of being part of the CSA.

The instrument presented 14 statements about the meaning of being part, asking each participant to mark the three most important. The statements were: Supporting family agriculture (AAF); Supporting local development (ADL); Trusting the possibility of living in a fairer economic model (CPV); Knowing the origin of the food (CAA); Taking care of my family's health (CSF); Ensuring a balanced and nutritious diet (GDE); Participating in a community (PDC); Practicing citizenship, positively impacting society (PCI); Practicing sustainability, positively impacting the environment (PSI); Having access to tasty foods (TAA); Having access to pesticide-free foods (TAS); Having access to products from the Cerrado biome (TAP); Being close to the producer (TPP); and Having collective experience and awareness (TVC). These options were developed from an exploratory survey conducted by CSA2 at the beginning of 2019, which was kindly provided to the researchers.

Regarding the participants, in the first CSA addressed (CSA1) there were 30 respondents, and in the second (CSA2) there were 29 participants, representing more than 70% of the co-farmers from each of them. The gender and age of the participants were also collected. The majority were women, and their average age was 41 years. Additionally, the co-farmers were asked how long they had been part of the CSA. It was found that 22 respondents had been part for less than a year, 13 had joined from one to two years earlier, and 24, for more than two years.

The collected information was submitted to descriptive and inferential analyses to understand the meaning of being part of the CSA for the two groups. Through the IBM SPSS Statistics 26 program, a cluster analysis was conducted based on selecting the items of meaning. The agglomerative hierarchical

clustering was conducted using the Ward method and the application of Euclidean distance, which classified individuals into five groups. The groups were described by the meanings indicated by the co-farmers in the questionnaire.

To understand the items that contributed most to the formation of each group and, thus, to understand the meaning, a non-parametric Kruskal-Wallis test was first conducted among all 14 items and the five identified groups. For items with significant differences between the groups ($p<0.05$), the Kruskal-Wallis was applied pair-wise for multiple comparisons, with adjustment of significance values by the Bonferroni correction. Finally, an analysis was conducted considering the complementarity of the results of the two studies, aiming to observe possible similarities in the meaning of being part through the different empirical strategies employed.

RESULTS

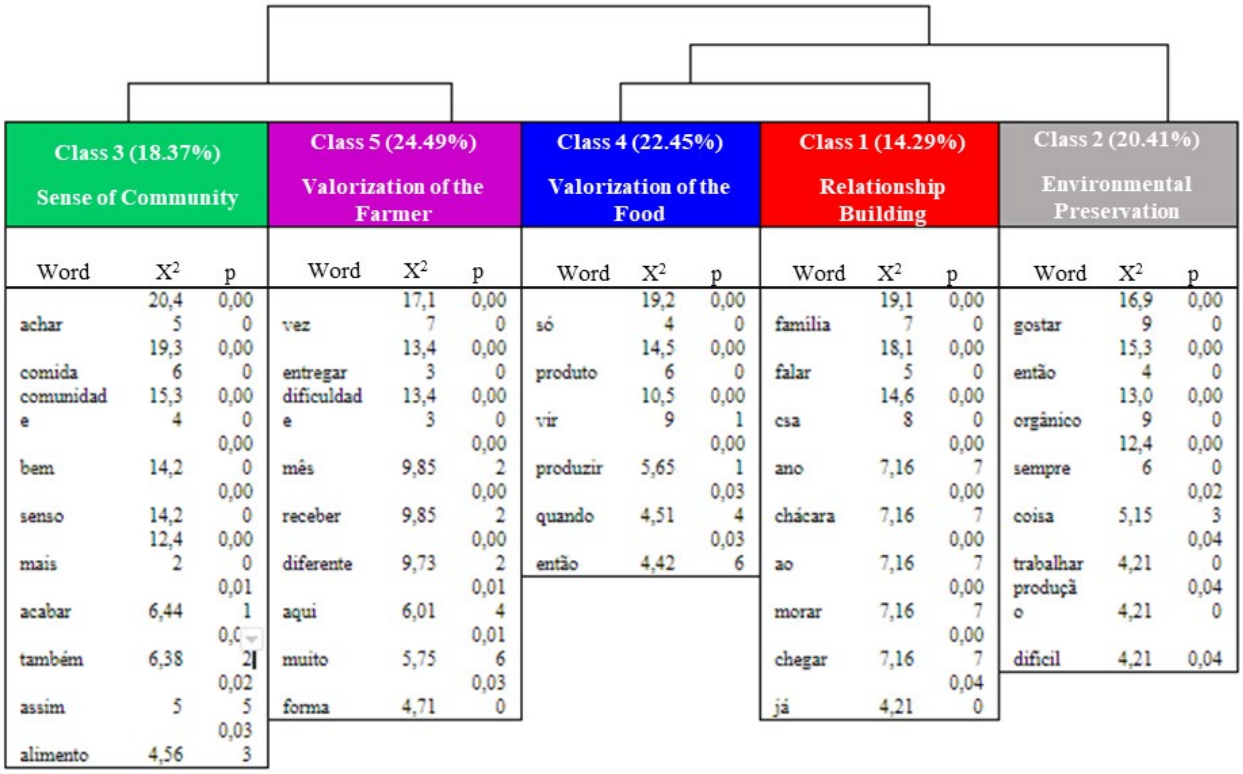
The presentation of the results is organized into two main sections, which explore the members' perception of CSAs over the meaning of participating in this type of community. Study 1 presents a textual analysis of descending hierarchical classification (DHC) combined with factorial correspondence analysis (FCA). In Study 2, aspects related to being part of a CSA by the interviewed co-farmers are described, based on which a cluster analysis of the data regarding the meaning of belonging to the CSA movement was carried out.

STUDY 1 – TEXTUAL ANALYSIS OF INTERVIEWS WITH CSA MEMBERS

In Study 1, we sought to explore, from the interviews conducted with farmers and co-farmers of CSAs in Brasília (DF) and using the Iramuteq software, the main categories of meanings (classes) regarding being part of a CSA, from a textual analysis of the perception provided by the interviewees.

For this, a descending hierarchical classification (DHC) was obtained, a summary of the classification where texts are organized according to their vocabularies, forming a dendrogram that presents the partition of the corpus and indicates the size of each classification. Figure 1 shows the most relevant words for each obtained class (with higher chi-square values) and $p<0.05$.

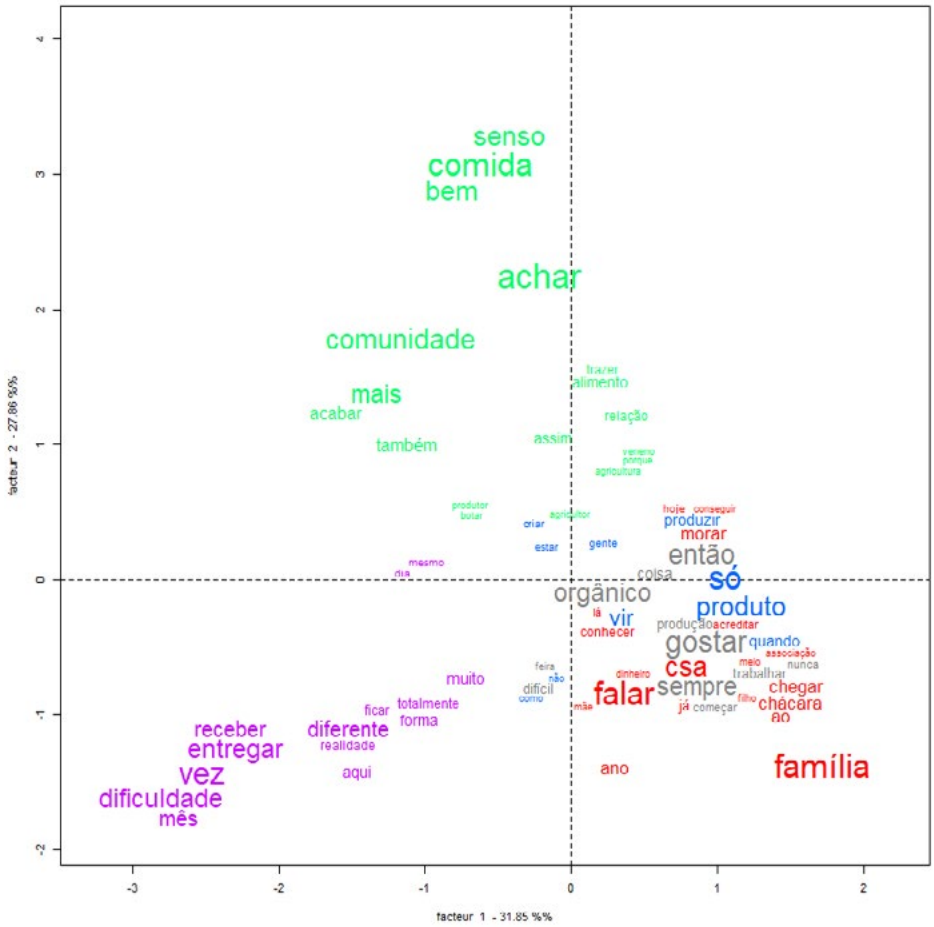
Figure 1 | Dendrogram of the descending hierarchical classification (DHC) on the meaning of being part of the CSA.



As shown in Figure 1, the software generated five categories from the analyzed corpus. All categories refer to the question “What does being part of a CSA mean to you?”, but the Iramuteq software reorganized the responses into classes according to textual similarity. With these same five classes obtained, another classification format offered by the software is the factorial correspondence analysis (FCA), presented in Figure 2 in the same colors of the classes from the DHC.

Figure 2 shows how the terms and classes relate within the Cartesian plane. The percentage of segments retained by the FCA was 81.69%, which allows the classes to support the analyses of their content, even though it is a relatively small corpus, composed by 71 text segments and 2458 occurrences. Observing the Cartesian plane, there is a close relationship between classes 4, 1, and 2 (blue, red, and gray). Meanwhile, classes 5 and 3 (purple and green) show an opposite relationship.

Figure 2 | Factorial correspondence analysis (FCA) of the meaning classes of being part of a CSA.



Below, each class is presented and discussed in the order established by the DHC.

CLASS 3: SENSE OF COMMUNITY

Class 3 (in green) accounted for 18.4% of the total Elementary Context Units (ECUs). The designation “sense of community” is suggested by the fact that this class demonstrated the meaning of being part of a CSA in terms of “sense”, “community”, and “food”, shown in Figure 2 by the terms in Portuguese “senso”, “comunidade”, and “comida”. Interviewees mentioned that, by participating, “you manage to create bonds both with the community folks and with the farmer”, that “food ends up being a detail compared to the sense of community it brings”, and because “you end up meeting other people from the neighborhood”. For this class, being part of a CSA corresponds to participating in a community, mainly for co-farmers.

CLASS 5: VALORIZATION OF THE FARMER

Class 5 (in purple) accounted for 24.5% of the total ECUs and was given the designation "valorization of the farmer" due to mentions raised by interviewees, such as "the best tool there is to put the peasant back in the spotlight and give him a condition". Some of the most used terms in this classification were "deliver", "receive", "difficulty", and "different", shown in Figure 2 by the terms in Portuguese "entregar", "receber", "dificuldade", and "diferente". It was observed that there is a perception that it is a different way of relating to the rural producer and receiving the product. According to a farmer, "This is already very different. There is also the part of receiving in advance; we receive what we will deliver in the month". The rural producer perceives a guaranteed remuneration by participating in a CSA. Additionally, regarding supporting family agriculture, it was mentioned that "it is practically implementing a thought that we have a lot, and that is difficult to realize". Thus, being part of the CSA means getting closer to the rural producer, which might not occur through conventional means, with mentions from farmers and co-farmers.

CLASS 4: VALORIZATION OF FOOD

Class 4 (in blue) accounted for 22.4% of the total ECUs, receiving the designation "valorization of food" due to mentions such as "being able to bring people to my house to see my farm, my production, show them how we produce, that we do it with care", "the CSA is a social technology that values the farmer and the food", "the CSA came complete, it brought dignity to the producer, you know, because people look at the products, look, I find such great joy". Some of the main terms used by interviewees and highlighted in the factorial analysis of correspondence (FAC) are "product" and "produce", shown in Figure 2 by the terms in Portuguese "produto" and "produzir". For this class, the product is essential in being part of a CSA for farmers and co-farmers. This factor is related to the overall increase in interest in organic food due to a more significant concern for people's health and well-being, in addition to the environmental impact of conventional products (Dias *et al*., 2015), possibly being a key attraction to the CSA model.

CLASS 1: RELATIONSHIP BUILDING

Class 1 (in red), with 14.3% of the total ECUs, is suggested to be named "relationship building" due to mentions such as "having your direct relationship with those who consume our product" and "my wife, I met her in the CSA". Some of the main words brought up by ECUs of this class, as indicated in the FAC, are "family", shown in Figure 2 by the Portuguese term "família", and "CSA". It is noted that there were no co-farmers with elements from this class, only farmers.

CLASS 2: ENVIRONMENTAL PRESERVATION

Class 2 (in gray) has 20.4% of the total ECUs. Its suggested designation was "environmental preservation", due to mentions from interviewees such as "contributing to nature", "adopting a more responsible attitude in terms of consumption", "truly dedicating oneself to the work of preserving nature", and "an important movement to support organic agriculture, support environmental preservation, sustainability". The terms "organic" and "like" are among some of the main words mentioned by interviewees (both farmers and co-farmers) and indicated in the FCA.

Each of these classes represents a distinct facet of the meaning of participating in a CSA, illustrating the complexity and richness of the motivations and perceptions of its members. CSAs emerge as multifaceted spaces where food, community, respect for agricultural work, personal relationships, and environmental sustainability intertwine, creating a production and consumption model that transcends the conventional.

STUDY 2 – DESCRIPTIVE ANALYSES OF QUESTIONNAIRES APPLIED IN CSA

Study 2 was based on applying a questionnaire to members of two CSAs, who were allowed to select up to three pre-established options for the question about what it means to be part of a CSA. Figure 3 shows the results compiled in a frequency analysis.

Figure 3 | Frequency of responses to items on the meaning of being part of the CSA.

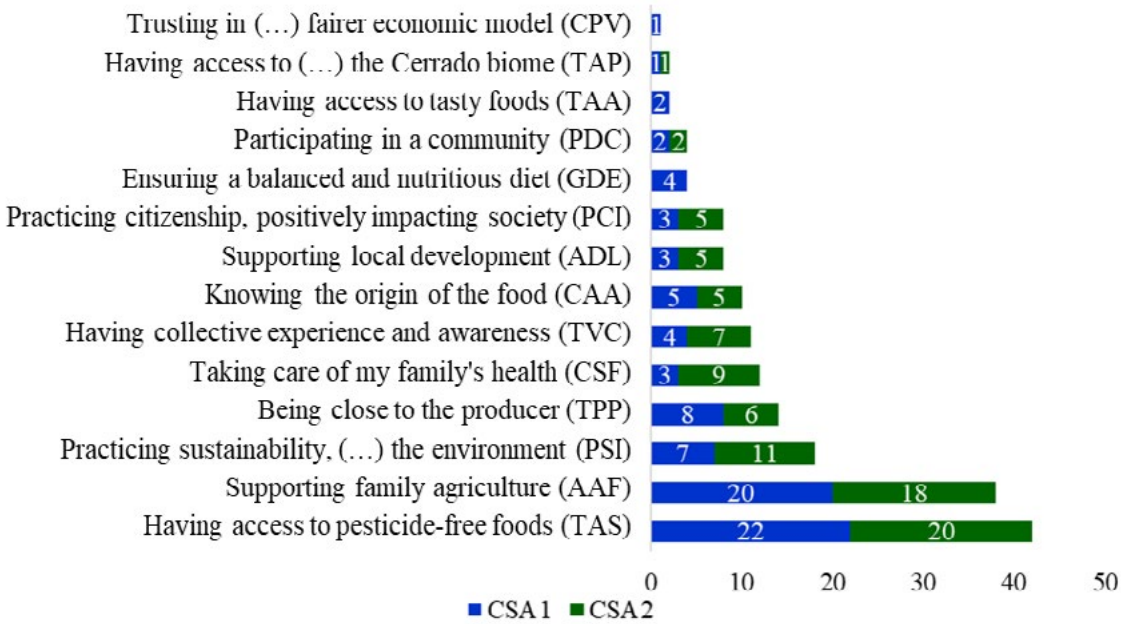


Figure 3 shows that, for the group of interviewed co-farmers, having access to pesticide-free foods (TAS) is vital to being part of a CSA and supporting family farming (AAF). In third place is "practicing sustainability, positively impacting the environment". It is noteworthy that, considering only CSA1, "being close to the producer" was a factor as relevant as the issue of sustainability.

A cluster analysis was conducted based on the individual responses provided by each co-farmer (regardless of their CSA). Consumers were grouped according to the indicated meanings of belonging to the CSA, resulting in a dendrogram. In the cut-off line analysis, the formation of five groups of co-farmers was chosen, distinguished by their response pattern to the meanings. These groups are presented in Table 1, which compares only the nine items (out of 14) that showed a significant difference in the Kruskal-Wallis test for independent samples, followed by multiple comparisons with Bonferroni correction.

Table 1 | Response count according to the meaning of items belonging to CSA by groups

Items	"Diet and Origin" Group 1 (16.9%)	"Safety and Proximity" Group 2 (22.0%)	"Citizenship" Group 3 (25.4%)	"Socializing" Group 4 (13.6%)	"Environmental Sustainability" Group 5 (22.0%)
TAS	9a	12a	14a	0b	7ab
AAF	3a	4a	11ab	8b	12b
PSI	1a	2a	2a	0a	13b
TPP	0a	7b	1a	6b	0a
TVC	0ab	5ab	0a	4b	2ab
CAA	9a	0b	0b	1b	0b
PCI	0a	0a	8b	0a	0a
GDE	4a	0b	0b	0b	0b
TAA	0a	0a	0a	2b	0a

Note: Different letters (a, b) in the same row indicate statistical differences ($p<0.05$) for the respective item among groups.

Table 1 shows that Group 1, representing 16.9% of the respondents, considers that the primary meaning of being part of a CSA is having access to pesticide-free food (TAS), followed by knowing the origin of the food (CAA). This group is distinguished from others by the highest number of co-farmers who indicated CAA and GDE (ensuring a balanced and nutritious diet), hence it was named "Diet and Origin".

Group 2, encompassing 22% of the participants, also highlighted access to pesticide-free foods (TAS) among the core meanings, followed by proximity to the farmer (TPP). It differentiated itself from other groups by combining these two aspects as the most relevant — since groups 1 and 3, which also highlighted TAS, did not consider TPP important. Therefore, it was called "Safety and Proximity".

Group 3, slightly larger in number of representatives (25.4%), was named "Citizenship". In this group, the differential in comparison to the others was the item of practicing citizenship, positively impacting society (PCI) — a specific mention not observed in other groups.

Group 4, with 13.6% of the participants, was named "Socializing", mainly distinguished by the support for family farming (AAF), followed by proximity to the producer (TPP) and experiencing and collective consciousness (TVC). It also differentiated itself by not emphasizing access to pesticide-free foods (TAS).

Finally, Group 5, "Environmental Sustainability", included 22% of the participants. This group saw participation in a CSA as a way to positively impact the environment (PSI), in addition to supporting family farming (AAF) and having access to pesticide-free foods (TAS). It stood out from the others by focusing on environmental sustainability (PSI) as its central meaning.

DISCUSSION

The two studies in this work are complementary, and both allow for an analysis, each with its empirical contribution, of what it means to be part of a Community Supported Agriculture (CSA) from the members' perspective. Study 1 identified five classes of meanings belonging to the CSA for producers and co-farmers. In turn, Study 2 identified five groups of co-farmers based on the meaning of belonging to the CSA. Table 2 summarizes the identified classes and groups and provides some references, underpinning the subsequent discussion.

Table 2 | Summary of meanings identified in Studies 1 and 2

Study 1	Study 2	References
Class 3: Sense of Community	Group 4: Socializing	Carolan (2017), de Bakker e Dagevos (2012), Escajedo San-Epifanio (2015), Hassanein (2008), Welsh e MacRae (1998)
Classe 5: Valorization of the Farmer	Group 2: Safety and Proximity / Group 3: Citizenship	Schnell (2007), Lyson (2005)
Class 4: Valorization of Food	Group 1: Diet and Origin	de Bakker e Dagevos (2012), Hassanein (2008)
Class 1: Relationship Building	-	Welsh e MacRae (1998), Phillips (2006)
Class 2: Environmental Preservation	Group 5: Environmental Sustainability	Lozano-Cabedo e Gómez-Benito (2017), Renting *et al*. (2012), de Bakker e Dagevos (2012), de Tavernier (2012)

SENSE OF COMMUNITY AND SOCIALIZING

Class 3 from Study 1, named "Sense of Community", emphasizes the importance of CSA in fostering closeness among community members. When studying CSAs, Schnell (2007) noted that all rural properties take the "community" aspect seriously, striving to establish a broader sense of community among members and their connections. Compared to Study 2, this class resembles Group 4, named "Socializing", for which being part of a CSA means supporting family farming, being close to the producer, and having collective experience and awareness. These meanings corroborate the authors' suggestion that participating in communities like CSA usually involves a high degree of empathy for others (Carolan, 2017) and carrying values of care for the community and environment (De Bakker; Dagevos, 2012). These values are among the main pillars for maintaining the sustainability of organizations like CSAs (Melo *et al*., 2022).

VALORIZATION OF THE FARMER AND SAFETY AND PROXIMITY / CITIZENSHIP

Class 5 from Study 1 corroborates the literature on the relationships established within CSAs between consumers and farmers, promoting the formation of local connections and direct ties between these profiles (Schnell, 2007). It can be compared to the Group 2 from Study 2, "Safety and Proximity", which combined access to pesticide-free foods with closeness to the producer. Class 5 from Study 1 also resembles Group 3 from Study 2, "Citizenship". This group has associated being part of a CSA with practicing citizenship and positively impacting society, and it was the group with the most representatives.

These meanings relate to the reflection on food citizenship, considering the importance of food and nutrition as a social aspect, its economic relevance, its globalized nature, the fact that it is a highly regulated sector, and the risks related to food (Lozano-Cabedo; Gómez-Benito, 2017). According to Schnell (2007), food citizenship also brings the producer closer to the co-farmer, which favors consumer awareness about the supply chain. Thus, this perception of being part of a CSA refers to the development of the local economy (Lyson, 2005), which occurs through supporting food-producing families and is supported by the security this provides and by the practice of citizenship itself. This valuation also involves providing security and enhancing the empathy and rationality of those involved (Sousa Junior *et al*., 2023).

VALORIZATION OF FOOD AND DIET AND ORIGIN

The perceptions brought by Class 4 from Study 1 are linked to the desire to join movements like CSA, where people seek healthy and reasonably priced foods, promoting changes in consumption patterns (De Bakker; Dagevos, 2012). This Class can be compared to the Group 1 from Study 2, "Diet and Origin", which primarily sees the meaning of being part of a CSA in access to pesticide-free foods and knowing the origin of foods, with individuals also concerned with ensuring a balanced and nutritious diet.

These meanings promote the understanding that integrating these systems encourages consumer familiarization with foods and the food system (Hassanein, 2008).

BUILDING RELATIONSHIPS

The elements of Class 1 from Study 1 associate being part of a CSA with building closer and more individualized relationships, including cases of family formation from relationships experienced within the CSA. In the literature, people who are part of alternative food systems value authentic relationships (Welsh; MacRae, 1998) and believe in the power of creating alliances (Phillips, 2006). It leads to perceptions of how participating in a CSA strengthens families.

However, there is no clear equivalence between this class and the groups from Study 2, especially since there were no sentence options about family-type relationships in the Study 2 questionnaire, which was built based on a prior exploration of meanings among co-farmers. Indeed, Class 1 was obtained only from mentions by farmers in Study 1, with no contributions from co-farmers to this point observed through DHC. Nonetheless, as seen in Class 3 from Study 1 and Group 4 from Study 2, there is a sense of collective relationships among people (collectives) and co-farmers within the aspect of living together (in the community).

ENVIRONMENTAL PRESERVATION AND ENVIRONMENTAL SUSTAINABILITY

Class 2 from Study 1 is associated with environmental preservation. Within the context of AFNs, the food citizen expresses belief in a sustainable food model and attempts to articulate new alternative economic spaces and transform the structures and organization of the agri-food system (Lozano-Cabedo; Gómez-Benito, 2017). Class 2 is, therefore, quite aligned with the perception that being part of mechanisms like CSA is a way to promote ecology and/or agroecology (Renting *et al*.,

2012), by individuals who value care for the environment (De Bakker; Dagevos, 2012).

This Class is equivalent to Group 5 from Study 2, entitled “Environmental Sustainability”, whose meaning is primarily based on positively impacting the environment. These meanings indicate that caring for the planet is one of the priorities of food citizens (De Tavernier, 2012). Thus, this issue’s meaning is present among CSA members in both studies.

Given the above, there is a connection between the associations of meanings raised by the interviewees and the concept of food citizenship (Lozano-Cabedo; Gómez-Benito, 2017), positioning CSA as a significant movement for individuals to experience the collective, support the producer, consume healthy foods, and align with aspects of sustainability.

FINAL CONSIDERATIONS

Based on two complementary studies, this research identified and discussed different meanings of being part of a Community-Supported Agriculture (CSA) from both the producer and consumer perspectives.

The analysis of the results suggested that a sense of community is among the main reasons for participating in this system, being one of the fundamental pillars for maintaining the sustainability of organizations like CSAs. The valuation of the farmer was also highlighted by both the producer, reflecting the perceived security and financial stability, and by the consumer, who recognizes the importance of supporting family farming by backing a producer with whom they have a close relationship.

Additionally, the meanings related to access to foods considered healthy due to being pesticide-free and diet-friendly, as well as to sustainability, which involves the perception of positively impacting the environment, were also emphasized by participants. It was observed that such elements of meaning are aligned with the theoretical field of Alternative Food Networks (AFN) and food citizenship, advancing the field by suggesting relevant thematic dimensions for analysis in future studies.

Since CSA is an organization, the identified meanings favor management and marketing strategies related to attracting new community members by disseminating the benefits of being part of, considering the meanings obtained. Therefore, the described meanings are considered relevant for engaging more individuals in the CSA movement, contributing with information that is necessary for

the continuous expansion of the participatory adherence movement, which promotes social inclusion and helps popularizing the production and consumption of organic products.

The findings highlight the contribution of CSAs to regional development in various ways. Firstly, CSAs promote social inclusion and popularize the production and consumption of healthy and sustainable products. Furthermore, these communities contribute to valorizing family farming, ensuring a safe and stable market for local producers. CSAs also play a role in environmental preservation, by promoting agroecological production and adopting sustainable practices that protect the soil, water, and biodiversity.

The identified meanings reveal the richness of the experience in CSAs and guide management and marketing strategies to attract new members. The emphasis on sense of community, farmer valorization, sustainability, and access to healthy foods can be incorporated into CSA communication strategies, attracting consumers aligned with these specific values and strengthening adherence to the CSA movement.

As a suggestion, new surveys could be conducted in different regions of the country, considering that the findings of this research were obtained in a representative location, but they might have distinct meanings in other areas. Other mechanisms that bring consumers and rural producers closer can be studied in the Brazilian context, allowing comparisons of their participation meanings with those of CSAs. Deductive quantitative studies can also confirm how different meanings of participation in CSAs relate to individuals' profiles, behaviors, and other motivations, bringing this research field closer to the literature on marketing and consumer behavior.

Finally, it is noteworthy that this research focused on CSAs in Brasília (DF), which is the region with the highest number of communities in Brazil. This might indicate that these consumers are more conscious and engaged than the national average. Therefore, some meanings identified here may not be observed in other locations with CSAs. Nonetheless, this contribution favors the construction of practical connections within the theoretical field of food citizenship and Alternative Food Networks (AFN).

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