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Extensionist profiles linked to Agroecology in Santiago del Estero, Argentina

Perfis de extensionistas vinculados à agroecologia em Santiago del Estero, Argentina

Perfiles extensionistas vinculados a la Agroecología en Santiago del Estero, Argentina

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Article received on February 13, 2023, final version accepted on February 18, 2024, published on June 28, 2024.

ABSTRACT: Agroecology encompasses various perspectives and trajectories – situated according to the particular social, cultural and ecological characteristics of each region –. The aim of this paper was to approach the hermeneutics of extension workers linked to Agroecology in Santiago del Estero between 2016 and 2017 with the purpose of contributing to the reflection of the practice and training in agroecology. We conducted an exploratory qualitative research from a critical interpretative approach through semi-structured interviews. We based our analysis on questions proposed by hermeneutics. Thus, we reconstructed What is there? What exists? What is being investigated for? How are problems transformed? What is known? How is knowledge (re)constructed? What is considered evidence? How is knowledge evaluated? Through these questions we recognise coherences, gaps and decouplings between discourses and practices. These contradictions are rather associated with institutionalized practices, involving tensions between individual-collective-institution. The extension staff showed a great diversity of perspectives and practices that we classified into three extension

profiles linked to agroecology in Santiago del Estero: “Transferencist”, “Mediator” and “Emancipator”. The “transferencist” profile is the one we associate with the greatest number of contradictions and difficulties felt. The “emancipatory” profile is linked to a complex and multidimensional perspective, based on constructivist perspectives of defined knowledge, explicit utopias and epistemological pluralism based on an intersubjective dialogue for the strengthening of the network and collective identity. Furthermore, we identify the need to recognise the historicity of agroecology linked to rural extension and popular education within the umbrella of Latin American Environmental Thought. These results are useful for the individual and collective reflection of extension staff – and others – and as a reference for thinking about possible changes.

Keywords: family, peasant and indigenous agriculture; agroecology; state; identity; public policies.

RESUMO: A agroecologia engloba várias perspectivas e trajetórias – situadas de acordo com as características sociais, culturais e ecológicas particulares de cada região –. O objetivo deste trabalho foi abordar a hermenêutica dos extensionistas vinculados à Agroecologia em Santiago del Estero entre 2016 e 2017 com o propósito de contribuir para a reflexão da prática e da formação em agroecologia. Realizamos uma pesquisa qualitativa exploratória a partir de uma abordagem interpretativa crítica por meio de entrevistas semiestruturadas. Baseamos nossa análise em questões propostas pela hermenêutica. Assim, reconstruímos: O que existe? O que está sendo investigado? Como os problemas são transformados? O que é conhecido? Como o conhecimento é (re)construído? O que é considerado evidência? Como o conhecimento é avaliado? Por meio dessas perguntas, reconhecemos coerências, lacunas e desacoplamentos entre discursos e práticas. Essas contradições estão mais associadas a práticas institucionalizadas, envolvendo tensões entre indivíduo, coletivo e instituição. A equipe de extensão mostrou uma grande diversidade de perspectivas e práticas que classificamos em três perfis de extensão ligados à agroecologia em Santiago del Estero: “Transferencista”, “Mediador” e “Emancipador”. O perfil “transferencista” é o que associamos ao maior número de contradições e dificuldades sentidas. O perfil “emancipatório” está vinculado a uma perspectiva complexa e multidimensional, baseada em perspectivas construtivistas de conhecimento definido, utopias explícitas e pluralismo epistemológico a partir de um diálogo intersubjetivo para o fortalecimento da rede e da identidade coletiva. Além disso, identificamos a necessidade de reconhecer a historicidade da agroecologia ligada à extensão rural e à educação popular dentro do guarda-chuva do pensamento ambiental latino-americano. Esses resultados são úteis para a reflexão individual e coletiva da equipe de extensão – e de outras pessoas – e como referência para pensar em possíveis mudanças.

Palavras-chave: agricultura familiar, camponesa e indígena; agroecologia; estado; identidade; políticas públicas.

RESUMEN: La Agroecología abarca variadas perspectivas y trayectorias – situadas en función de las características sociales, culturales y ecológicas particulares de cada región –. El objetivo de este trabajo fue aproximarse a la hermenéutica del personal extensionista vinculado con la Agroecología en Santiago del Estero entre 2016 y 2017 con el propósito de aportar a la reflexión de la práctica y la formación en agroecología. Realizamos una investigación cualitativa de corte exploratorio desde un enfoque interpretativo crítico mediante entrevistas semiestruturadas. Fundamentamos el análisis en preguntas propuestas por la hermenéutica. Así, reconstruimos ¿Qué hay? ¿Qué existe? ¿Para qué se indaga? ¿Cómo se transforman los problemas? ¿Qué se sabe? ¿Cómo se (re)construye el conocimiento? ¿Qué se considera una evidencia? ¿Cómo se evalúa el conocimiento? A través de estas preguntas reconocemos coherencias, brechas y desacoples entre los discursos y las prácticas. Estas contradicciones están más bien asociadas a las prácticas institucionalizadas, implicando tensiones individuo-colectivo-institución. El personal extensionista mostró mucha diversidad de perspectivas y prácticas que ordenamos en tres perfiles de extensión vinculadas a la agroecología en Santiago del Estero:

“Transferencista”, “Mediador” y “Emancipador”. El perfil “transferencista” es el que asociamos a la mayor cantidad de contradicciones y dificultades sentidas. El perfil “emancipatorio” lo vinculamos a una perspectiva compleja y situada en múltiples dimensiones, partiendo de perspectivas constructivistas de conocimiento definidas, utopías explícitas y el pluralismo epistemológico basado en un diálogo intersubjetivo para el fortalecimiento del entramado y la identidad colectiva. Además, identificamos la necesidad de reconocer la historicidad de la agroecología vinculada a la extensión rural y educación popular dentro del paraguas del Pensamiento Ambiental Latinoamericano. Estos resultados son útiles para la reflexión individual y colectiva del personal extensionista – y otros – y como referencia para pensar cambios posibles.

Palabras-clave: agricultura familiar; agroecología; estado; identidad; políticas públicas.

1. Introduction

This work is developed in the context of the expansion of the agricultural frontier linked to the technological package of transgenic soybeans. This process of territorial transformation implied and implies the juxtaposition of two models of agriculture and connection with the ecosystem. On the one hand, the agroindustrial model, and on the other, the peasant way of life. Notably, Santiago del Estero accounts for more than 40% of the peasant units in the entire country, representing one of the highest percentages of peasant units within its agrarian structure (Paz, 2006). The peasantry of Santiago del Estero has a history of organization in resistance and struggle for land, as well as in the care and construction of their own life and production paradigms (Movimiento Campesino de Santiago del Estero-Vía Campesina, 2010, 2016). This way of life is under attack from agribusiness, which in the aforementioned context of the expansion of the agricultural frontier has deforested more than 1,900,000 hectares of native forest where the peasantry lives between 1998 and 2019, mainly for intensive agricultural activities and secondly for livestock farming (Red Agroforestal Chaco Argen-

tina, 2021; Marinaro et al., 2022). These processes have involved the exercise of enormous violence and also entail the destruction of the biological and sociocultural diversity of the region (Domínguez and Barbeta, 2022). The most referenced organization is the MoCaSE (Movimiento Campesino de Santiago del Estero). In the regional context, the resistance in the territory of rural inhabitants who defend their ways of life associated with the persistence of the forest, subjects in resistance and re-existence (De Sousa Santos, 2018), promoting alternatives to the industrialization model and sustaining life in the territories, because, as Vía Campesina proclaims, “without our peoples there is no Agroecology” (“sin nuestros pueblos no hay Agroecología”, Vía Campesina, 2018-2022).

Agroecology is inscribed in scenarios of territorial dispute and is part of processes of collective action of re-territorialization of rural populations (Dominguez, 2019). In this context, Agroecology is relevant to strengthen the rootedness of local and sustainable ways of life that mean the maintenance of healthy, functional, and balanced socio-ecosystems. On one hand, by strengthening life strategies and on the other hand, by building legitimacy on the land use mode. However, the very conception

of agroecology is still under construction¹ (Wezel et al., 2009; Gómez, Ríos-Osorio, Eschenhagen, 2015) and in dispute among proposals that can be classified as "industrial," "neoliberal," "reformist," or "emancipatory" (Giraldo and Rosset, 2021). The concept of agroecology in Argentina has been disseminated both through social organizations and technical and academic institutions and is embraced by a great diversity of subjects (Dominguez, 2019). Ambiguous discourses emerge proposing the co-existence between both models or even reducing agroecology to a set of practices assimilable by the agro-industrial model; which manifests conceptual disputes around the term and political proposal of Agroecology (ibid). A well-established distinction in the field is the differentiation between organic agriculture and agroecology, as the latter introduces an ecological perspective (widely agreed upon) to improve processes through biodiversity (Sarandón and Flores, 2014), the inclusion of a social perspective (less defined) to improve working conditions and inequalities through cooperation and intersectoral articulation on alternative marketing and consumption proposals (Sarandón and Flores, 2019), and the dispute over the development model based on popular organization (Domínguez, 2019; Rosset et al., 2021). We emphasize that we understand the virtue of agroecology (Latin American) as a political project that confronts agribusiness (Domínguez, 2019) rooted in ontological plurality (Giraldo, 2013) and in the resistance of the peoples of Abya Yala (Rosset et al., 2021). In this sense, the central issue revolves around the subject of the process. When the

peasant is the focal point, as opposed to capital and the State, emphasizing the peasant subject as the core of the process (Mañano Fernandes, 2004). These processes are geared towards autonomy (Giraldo and Rosset, 2016), characterized as "emancipatory," feminist, and anti-racist, leveraging agroecosystem synergies over inputs, drawing on local knowledge, organization, and resources, with a primary focus on food production.

Within the field of agroecology, the work of different actors is recognized: the "scientific" body (associated with academia), social movements, and the technical body (associated with state rural extension institutions) (Wezel et al., 2009). In this work, we are interested in focusing on the sector identified with rural extension. For its part, rural extension has also undergone transformations and disputes over the work perspective (Caporal, 1998; Leeuwis, 2004; Dessimon Machado, de Hegedüs and Bighelini da Silveira, 2006; Alemany and Sevilla-Guzmán, 2006; Landini, 2016) that coexist in institutions beyond institutional guidelines, probably due to the perspective and practice of the personnel (Landini, 2015a; 2016). The "conventional extension" presents in the 1960s the idea that "agrarian modernization" was required to "get out of backwardness," a vision known as "traditional" (Dessimon Machado, de Hegedüs and Bighelini da Silveira, 2006), "transferist" or "diffusionist" (Landini, 2016). In the 1980s, the need to think about "soft or flexible production systems" was introduced, considering their contexts and complexity, with "interdisciplinary" approaches. And from the 1990s,

¹ Throughout the history of Agroecology, the approach has become more complex, from addressing agricultural practices to addressing agri-food systems; and three recognized areas of action and knowledge production have been consolidated: social movements, technical practices, and the academic field (Wezel et al., 2009). Understanding Agroecology as an emerging paradigm, it is interesting (instead of defining it) to know the breadth of its trajectory, where it comes from, in order to know what it currently is (or is becoming) and to be able to project desired futures (Hernandez et al., 2014).

there was a process of privatization and commodification of rural extension (Alemany and Sevilla-Guzmán, 2006), along with a process that proposed to value intersectoral articulation (Leeuwis, 2004). On the other hand, the beginnings of an alternative extension are proposed in the tradition of peasant studies and A. Chayanov's "Social Agronomy" (Alemany and Sevilla-Guzmán, 2006) that correlates with Freire's thinking proposals in Latin America, which Dessimon Machado, Hegedüs and Bighelini da Silveira (2006) call the "systemic approach" and other authors "critical rural extension" (Landini, 2015b). It proposes that extension personnel should engage in dialogues with the people they work with to think about social problems and needs together and weave strategies for possible solutions, "the viable unheard of" (Freire, 2014). This perspective had a strong impetus in Brazil from the late 1970s; however, it could not overcome the dominant paradigms of development and extension. The identified limits were: the state's commitment to the dominant classes, the dependence of the extension apparatus on government policy, the structure of the extension organization, and the class or ideological position of the extension personnel themselves (Caporal, 1991). Currently, this current of thought is congruent with the "agroecological extension" that incorporates sustainability concepts and has the potential to dynamize new processes in this sense (Caporal, 1998; Alemany and Sevilla-Guzmán, 2006).

Thus, the role of rural extension personnel² is crossed by the complexity, multiplicity, and diversity of tasks that these people must carry out (Landini, Bianqui, and Russo, 2013), which range from productive and commercial orientation to inter-institutional articulation work, fundraising, project formulation and group management, and conflicts at different levels. These authors point out that this evidences the need for interdisciplinary approaches and that extension personnel manifest a lack of the necessary tools (Landini, Bianqui, and Russo, 2013). The role is crossed by tensions of power disputes between the "downward" policies and the construction of policies for the sector from the "bottom-up" demand; in other words, the role played by each extensionist can be thought of as a conciliator, "mass organizer," generating consensus without conceding political power, which implies tension between the assumptions of territorial development policies and the vision of the subalternized sectors with which they work; according to each local context and situation, the policies will be more or less aligned with the interests of family farming (González, 2017).

For rural extension work, it is important to introduce the concept of the *corpus* of peasant knowledge from the tradition of peasant studies. Following Baraona (1987), the *corpus* is "the sum and repertoire of ideas and perceptions that we consider to be the peasant cognitive system" (own translation, p. 11). The *locus* (the location of know-

² To clarify what we understand by extension personnel, we adopt the descriptive and operational definition of Rural Extension proposed by Leeuwis (2004): "a series of professional communicative interventions amid related interactions that is meant, among others, to develop and/or induce novel patterns of coordination and adjustment between people, technical devices and natural phenomena, in a direction that supposedly helps to resolve problematic situations, which may be defined differently by different actors involved" (idem: p. 27). According to this definition, it is a professional activity of intervention (which, in the best case, aligns with the objectives of its beneficiaries), a communication-based process that requires multiple pathways for information flow, in which innovations are novel patterns of coordination and adjustment among people, technical devices, and natural phenomena (Idem).

ledge) is the collective peasant minds or memories, so its existence is implicit. Therefore, the *corpus* is relatively shared by the community, which does not preclude individuals from having different knowledge or a complete agreement on meanings. According to this perspective, the peasant subject incorporates knowledge — regardless of its origin — that is useful for improving their way of life. Thus, it has a dynamic rooted in thinking-deciding, and it emerges in action, not necessarily in spoken words (Baraona, 1987). This knowledge system is not technologically static; it constantly seeks improvements (innovations) by drawing from all available sources of knowledge (“traditional” and “modern”), resulting in intercultural processes (Díaz Tepepa, Ortiz Báez, and Núñez Ramirez, 2004). Within this framework, two types of specialists are recognized as sources of valid knowledge: community specialists who know more due to their experience in specific production areas, and extension agents. In the case of extension agents, they risk not understanding the contextual framework, thus requiring greater efforts to adapt this knowledge to the productive conditions of the peasants (*ibid*).

Beyond the technical discourses and content, it is essential to recognize whether the above implies a "practice of freedom," meaning whether it aims for individuals to transform reality through critical and creative action. Thus, even if the perspective of extension agents has a critical view of the development model, the practice they perform through institutions may still transmit norms and values associated with the transfer model of extension, as exemplified by Landini (2022). Various authors, who are engaged in the dialogue of knowledge, em-

phasize the need to not only recognize knowledge but also understand different types of knowledge on equal terms, without hierarchizing one type over others. Otherwise, it leads to diatribes (Noguera de Echeverri, 2004) between different forms of knowledge.

Regarding historical background, in Argentina, the institution with the most extensive reach has been the National Institute of Agricultural Technology (Instituto Nacional de Tecnología Agropecuaria, INTA), which includes the ProHuerta program, along with technicians from the Secretariat of Family Farming³ (Secretaría de Agricultura Familiar, SAF) and NGOs. Within these institutions, budget constraints have created greater tensions regarding extension priorities, generally prioritizing the hiring of agronomists (De Arce and Salomón, 2018), resulting in a predominance of the productivist profile and philosophical perspectives with inconsistencies (Landini, 2013; 2015a). While the need for a critical and comprehensive perspective is recognized, the practice is associated with management, with little pedagogical-educational perspective (*ibid*). In some cases, extension agents can be understood as actors operating at the margins of the state, acting as “mediators” between the state and organizations (González, 2017).

In relation to agroecology, at INTA, tasks gained momentum in the mid-1990s, the same year the ProHuerta program began (Casadinho, 2014). The ProHuerta program is recognized from its inception as embodying a type of technology, social organization, and shared values consistent with the agroecological approach (Cittadini, 2014). Particularly in the Chaco Region, since the 1980s, NGOs

³ We will refer to the Secretariat of Family Farming, although this institution has changed its name and structure several times throughout the 21st century.

with ecumenical support and state institutions, such as SAF, INTA, and the Institute for Social Development Studies (Instituto de Estudios para el Desarrollo Social, INDES), have been involved in supporting the family farming, peasant-indigenous sector (Casadinho, 2014, Soto, 2005).

In this context, there is little observation and discussion about what happens to technicians in intervention processes (Cacivio, 2015). Therefore, this work arises from the purpose of reflecting on the perspectives and potential of agroecology in Santiago del Estero towards an emancipatory agroecology. The general objective guiding this work was to characterize the hermeneutics of extension agents linked to agroecology in Santiago del Estero between 2016 and 2017. The following questions guided our work: How does the vision and work experience in agroecology in Santiago del Estero vary among extension agents linked to agroecology in different institutions: universities, NGOs, INTA, and SAF? What is the relationship between work perspectives and the theoretical frameworks of rural extension and agroecology?

2. Methodology

This qualitative, exploratory research is developed from a critical interpretive approach (Carr and Kemmis, 1988). We follow a logic of conceptual generation, recovering the perspectives of the extensionists interviewed. We investigate the "subjective meanings" of the actions that rural extensionists undertake in their work with peasant communities in order to construct and maintain a certain "reality" that appears "objective" (Carr and Kemmis, 1988). We aim to identify the meanings that actors attribute

to everyday life in these interaction situations that are part of their work.

For the identification and selection of cases, we used intentional sampling according to the snowball technique, identifying significant cases based on four main theoretical criteria (Valles, 2000):

- a) that the work performed is self-referenced within agroecology with the accompaniment of peasant communities;
- b) that the experience is greater than 5 years in the area;
- c) including a diversity of projects and institutions;
- d) accessibility.

We conducted open semi-structured individual interviews (Valles, 2000). We interviewed 10 extensionists between 2016 and 2017: 3 work in the Extension area of INTA; 2 in the PROHuerta program; 2 in the SAF; 1 in an NGO; 1 at the National University of Santiago del Estero, and 1 at the Catholic University of Santiago del Estero. Of the 10 interviewees, 4 are from outside the province. Regarding their training, they are: 3 Agronomists, 1 Forestry Engineer, 1 Technician in Social Economy and Local Development, 2 Master's degree holders, 1 Psychopedagogy graduate, 1 Professor in Educational Sciences, and 1 local promoter.

At the request of one of the extensionists, we conducted participant observation (Guber, 1991) in one of the experiences. Despite being a limited sample, the work does not aim to be representative of the entire field but to present a first approach to the subject.

For the analysis, we developed a cyclical coding process (Saldaña, 2015). We performed structural coding (Saldaña, 2015) based on the

following initial categories: Name; Institution; Career; Employment Start and Trajectory; Current Work; Personal Motivation; Institutional Objectives; Work Methodology; Difficulties; Learnings; Training: Tools and Agroecological Perspective; Articulation with the Territory; Agroforestry Topics and Techniques; Other; Worker's Role. Additionally, two meta-textual categories were generated: Researcher's Observations; Emphases in Discourse.

Based on Folguera's (2021) approach to environmental and health issues, we adopted the proposal of asking the hermeneutical question, seeking an understanding that goes beyond knowledge. This approach allows us to delve into the ontologies of the subjects, following Giraldo's (2013) suggestions. Thus, in a final coding process, we used the 7 hermeneutical questions proposed by Folguera (2021):

- i) What is there? What exists?
- ii) What is the purpose of the inquiry?
- iii) How are problems transformed?
- iv) What is known?
- v) How is knowledge (re)constructed?
- vi) What is considered evidence?
- vii) How is knowledge evaluated?

Finally, we discussed the "Extension perspectives between discourses and practices: coherence, gaps, and disjunctions" and constructed 3 profiles of extension situations: "transferential," "mediators," and "emancipatory."

3. Results and Discussion

3.1. What is there? What exists?

We propose the existence of a complexity gradient in the perspective of extension personnel to address the transformation of reality. Later, we will delve into the recognition of diversity and community among sectors, individuals, and knowledge. We will start here with an analysis of the identification of a problem or objective. We begin with the identification of productive problems/objectives, which we associate with productivist and reductionist perspectives, or complex and comprehensive problems/objectives, which we link to a more "emancipatory" perspective (following Giraldo and Rosset, 2021). We understand that there are experiences that have gradually incorporated dimensions of work. In the following quote, we identify, on one hand, a productive objective, but on the other hand, the solution is approached with a degree of complexity, incorporating ecological and integral soil health criteria: *our main aim is to achieve good quantity and quality productions. Healthy soil is necessary. In what would be a healthy soil, we work on three pillars: rotations, incorporation of fertilizers, staggered plantings* (own translation, INTA Extensionist, 2016). On the other end, the following quote highlights the importance of transforming institutional spaces. In this quote, we acknowledge, on one hand, the relevance given to the work community, and on the other hand, we observe the need, according to the interviewed person, to build common work objectives and finally, the political dimension of work, and the need to have influence in other decision-making spaces,

crucial for envisioning social transformations: *Building community within the work space, with shared work objectives and perspectives related to the sector. (...) Transforming institutional spaces* (own translation, SAF Extensionist, 2017). Lastly, we refer to the following quote, which explicitly states that working with peasant communities involves a reevaluation of how reality is problematized, understanding it as something integral:

When you start working with small producers, the first thing you realize is that if you want to work seriously, you have to change the economic model. (...) How do you continue to maintain cultures within this economic model and respect cultures? How do we maintain peasant culture, respecting it and letting peasant culture define where it wants to go? (own translation, UNSE Extensionist, 2017).

Thus, a more complex and comprehensive vision is politically, socially, and culturally situated, while also considering the political action plane and intersectoral articulation. This complexification aligns with the trajectory of agroecology as a transition process, from a reductionist academia to a more "emancipatory" academia, where decisions made by social groups are respected without imposing scientifically validated criteria (Wezel et al., 2009).

3.2. *What is the purpose of the inquiry?*

The identified motivations range from changing only productive practices issues or can involve a critical vision of the system, and the degree of complexification of the problem also varies, hence the objectives, up to cases of involving a strong critique of the social system, the political system,

and even a reflection on one's own practices (Table 1). The objectives proposed by the extensionists coincide with and cover the objectives reviewed in the literature (Table 1), which includes quite a few dissimilarities among them. However, the objectives of the personnel from Santiago del Estero are mainly linked to educational aspects and community processes, and less to technical aspects of agroecology.

In general, the objectives/problems are conceived with a complex view, with multiple dimensions, although some identify objectives/problems of a more technical nature, associated with production and transformation of products such as "production of healthy foods" or "diversification", which do not contemplate a social problem. In other interviews, more complex difficulties of a structural order are proposed, such as "the permanence of peasant communities in the forest from what they produce" or "Increase family income, health and self-sufficiency". In other situations, they avoid determining a problem a priori and propose to work based on collectively identified problems or through the strengthening of the peasantry, such as "Work on a liberating education" or "Accompany, follow social processes".

As a general aspect, we talk about the lack of organicity within an extension paradigm, we can think of this lack as the existence of gaps or mismatches between purposes, institutional discourses, methodologies, and practices. In this section, we can consider the gaps that exist between discourses or purposes and personal and institutional objectives. The following quotes are examples in which individuals appropriate a concept or conceptual proposal that functions as an articulator or giver of meaning or coherence to practice in general, such as "the Laudato Si Encyclical":

TABLE 1 - Contrast of medium and long-term work objectives of extensionists from Santiago del Estero and literature from the field of Agroecology.

	Literature	Extensionists from Santiago del Estero
Medium term	<ul style="list-style-type: none"> → Provoke impacts on social structures; → Meet the growing variety of socioeconomic and environmental challenges; → Local agri-food systems; → Sustainable agriculture; → Sustainable agroecosystems; → Sustainability; → Conservation of ecological and cultural biodiversity; → Conserve natural resources; → Increase/improve food production; 	<ul style="list-style-type: none"> → Utopia with reference to Galeano. Encyclical Laudato Si, Sustainability. → Recognize an order that has been lost. → Promote from Agroecology the development and permanence of peasant communities in the forest from what they produce. → Increase family income, health and self-sufficiency. → Production of healthy foods. Improve our practices in food care because that also influences health.
Long term	<ul style="list-style-type: none"> → Social changes; → On-farm practices/Guiding principles/Conversion stages; → Management and design of agroecosystems; → Ecological management of natural resources; → Development of new paradigms in agriculture/rural development programs; → Food production; 	<ul style="list-style-type: none"> → Work on a liberating education, but one that commits, that gives meaning to life. Common good. Inspire paths of life. → Accompany, follow social processes. → Work linked to small producers and develop the whole idea of peasant forest management. Diversify, propose possibilities. → Work as part of and articulated with the needs of the territory. Focus on the real demands that exist in the province. Have that comprehensive view of all problems.

SOURCE: own elaboration based on interviews and literature references constructed together with the Argentine Circle of Agroecology, based on: Mielgo and Guzmán, 1999; Altieri, 1999; Caporal and Costabeber, 2001; Gliessman et al., 2007; Food and Agriculture Organization of the United Nations, 2007; Sicard, 2009; Altieri, 2009; Wezel et al., 2009; Tittonell and Grazia, 2011.

The Laudato Si Encyclical by Pope Francis gives us a framework of inspiration and guidance on why and for what purpose we would link education, food, natural resources, consumer education, production, and added value. And how that is composing a virtuous or vicious circle (own translation, Reference UCSE, 2017).

Or like "sustainability:

what word frames me more today on this path in the sector, "sustainability." (...) it's eating my head because it has many nuances. (...) Social, environmental, and productive economic sustainability, I would also

add a political aspect (...) So when you propose that as a vision of sustainability, you end up falling into agroecology (own translation, INTA Extensionist, 2017).

In the speeches of some actors, we can more clearly identify and differentiate what the personal motivations and work objectives are. We observe that there are different degrees of commitment and involvement among the interviewed group. In some cases, motivation and work objectives are very integrated, to the point that their personal life is crossed by "work" activities, and the socialization

spaces of both areas are the same; while in other cases, there is a dissociation between personal life and the work socialization environment. In the second case, work objectives are separated from personal objectives, while in the first case, there is a personal identification with work objectives. This is also linked in some cases to the existence of individual-collective-institution tensions. This can be perceived in the presence of objectives related to building relationships and organization, more clearly present in those who are fully involved with the cause. As a reference, the following quote is interesting, in which the (dis)articulation between institutional objectives and community needs is manifested. It discusses how this tension can be managed in different ways:

If you position yourself within the framework of things that are important from the point of view of research, or (...) at the provincial, national level, and if you want to position yourself on what is important for Sixto [peasant reference], it changes your perspective a bit. And today, I am much more interested in rescuing what Sixto knows, learning a lot from him, and being able to lend a hand to Sixto (own translation, UNSE Extensionist, 2017).

Another reference straightforwardly proposes: *In all this mess, what I look at is that people do well, beyond the shirts that each one brings from the institutions* (own translation, INTA Extensionist, 2017).

3.3. How are problems transformed?

Regarding how problems are transformed, in general terms we observe, on the one hand, a perspective that may seem more paternalistic, focused

on the importance of knowing local needs, and from there seeing what can be facilitated from the institutions to improve that problematic situation, as can be read in the following quotes: *see how you can have an impact on those people and what their real needs are. Sometimes one goes with a certain preconception and in the end is not seeing the real needs* (own translation, INTA Extensionist, 2016); *If you want to have an impact in the place, you have to have knowledge of the idiosyncrasy of that place and what the cultural patterns and management of that place are* (own translation, INTA Extensionist, 2016); *You have to get into the picture. As you get to know, you will be getting into it and discovering how you can contribute. (...) So backwards, in my trajectory, each jersey has been an opportunity to use public or NGO tools to contribute to the sector* (own translation, INTA Extensionist, 2017).

On the other hand, we recognize two other positions in which the subjects themselves are part of the strategy, however in one a broader community of peers is envisioned between technical personnel and peasant communities, and in the other the peasant organization is given greater importance and autonomy. The latter is more aligned with the proposal put forward by Giraldo and Rosset (2021), under which truly transformative agroecological processes must strengthen the organization and autonomy of organizations:

That is, you set up a strategy with colleagues who are in other places and it is the possibility that I believe allows you to move forward with something. (...) Never construction alone, there was always a group, when I say group it is mixed, everyone, it is the gardener, the technician who accompanies (own translation, INTA Extensionist, 2017);

their organization was the thing that could strengthen them. (...) see some problems they had and reflect together and see what the paths to solution could be, and (...) that it has continuity... (...) like an adult education issue, that of Freire of action, reflection, action (own translation, INTA Extensionist about his previous experience in an NGO, 2016).

In this way, in certain positions we observe a certain subordination of the extensionists to the definitions of the social organizations, an accompaniment to their strategies, instead of an imposition of these from the extensionists (and public policies) towards organized popular sectors.

3.4. What is known?

With this question, we delve deeper into how values and hierarchies of knowledge are configured around two axes: a first axis related to the centrality of "technical" knowledge in contrast to "social" knowledge for a more comprehensive perspective; and a second axis related to the contrast with the peasant *corpus* and peasants as subjects of knowledge.

In general, extensionists recognize the importance of complex, integral, and situated knowledge. In the following quote, it is mentioned that in agroecology, environmental, social, and economic knowledge is required:

and the truth is that that gaze in those three dimensions that we had with agroecology, I put it into practice in all projects because it closes, because it is what closes, the environmental, social, and economic, it all goes together; always goes hand in hand (own translation, INTA Extensionist, 2017).

In this sense, for the group of extensionists, social sciences and humanities take on significant value, and many references are made to their importance in interviews. However, this may be reproducing the idea that "technical" knowledge is essential, and "social" knowledge is useful for work. Extensionists presenting an "emancipatory" perspective identify specific thought currents in which they situate themselves and which are central to their work (social sciences and the process), such as Popular Education or Social Psychology, which demonstrates that beyond a declaration of intention, it implies training in these areas. For example: *Understanding that social psychology and its paradigms are among the most powerful for transforming reality in these peasant societies* (own translation, INTA Extensionist, 2016). In contrast, we can observe a position of greater estrangement regarding these knowledge areas, which are recognized as important but not essential: *I have to have a sensitivity so that the treatment is not just technical, (...) that requires a very deep knowledge of human science that many engineers do not have* (own translation, Prohuerta-INTA Extensionist, 2017).

Within the narratives, we identify at least two notions that value the *corpus* of peasant knowledge: on the one hand, the centrality of situated knowledge construction, and on the other, the need to work in the exchange and rescue of knowledge. In an interview, the need for situated knowledge construction is manifested, also highlighting the relationship between knowledge and production, inseparable, which can be linked to the concept of *praxis*. There are general ideas of agroecology that must be applied locally to build situated knowledge necessary for production and a product of that activity. This implies valuing the way peasant knowledge is

constructed and that agroecology makes a selection of knowledge that is useful for the peasant *corpus*:

The interesting thing about agroecology is that there are always technical proposals to investigate and find solutions (...) That is the nice thing, that depends on the situation where you are, you have to find the way in that situation. Those are things that have to be kept in mind as teaching or learning from agroecology" (own translation, INTA Extensionist, 2017).

On the other hand, the notion of rescue recognizes the knowledge (re)produced in productive experience, given that if it is lost, the activity is no longer performed, and that knowledge is recreated through shared practice between experts (usually adults) and beginners (children and young people), in a practice that we could think of as intentional participation (Rogoff, Turkanis, and Bartlett, 2001). Recreated in the sense that beginners also experiment, interpret what they observe, and create variants of those knowledge that are being put into practice. And in that sense, the need for knowledge exchange between producers for the (re)production of those knowledge and to improve productive practices is understood. For example:... *rescuing those knowledge that have a very high cultural value because they are things that have been lost* (own translation, Prohuerta-INTA Extensionist, 2016).

It is important to clarify that it is necessary to start from the recognition of peasants as subjects who construct knowledge:

people quickly realize where the technician stands, and from there it opens up more or less, they sit and listen if the one who comes, comes to talk and explain how things should be done, or at some point they start sharing what they know, if they feel that is valued (own translation, SAF Extensionist, 2017).

It is worth noting that this valuation implies a controversy. The extension practice is carried out within institutions that are hegemonized by agronomic sciences (De Arce and Salomón, 2018), in which differences between "technical" and "research" knowledge are also highlighted. In the following quote, it is mentioned that situated knowledge is less relevant for research personnel: *Unlike our colleagues who are researchers, they are very good at a crop, (...) and nothing more. Then when (...) has to go to the territory where there are people, (...) they get lost* (own translation, INTA Extensionist, 2016).

3.5. How is knowledge (re)constructed?

Although the need for a dialogue of knowledge between local knowledge and technical knowledge is generally expressed, we notice the existence of contradictions with the way the training spaces (a very recurrent practice for the group of extensionists) are narrated. In part of the interviews, training is one of the main activities. In these, in general, it is understood that there is a core of technical knowledge that must be transmitted to producers so that they can improve their productive activities or put them into practice. Thus, it is not considered that technicians produce situated knowledge together with peasants. Under this logic, it is not being thought in terms of knowledge construction (which would be consistent with the agroecological paradigm and the understanding of the peasant *corpus*), but rather in a transfer of knowledge. There are those who point out that the necessary knowledge is the technical one and that the dialogue is necessary for people to understand what they have to do.

On the other hand, there is generally a consensus in pointing out the need for exchange or rescue of knowledge between producers (as we have already alluded to). It is then worth asking ourselves if this practice is thought of as a process of knowledge construction or transfer. There are not many cases where reference is made to this practice, and even less putting value on the knowledge of local specialists, as referenced in the following quote:

the exchange of knowledge is done, inviting through the land table the communities to send their representatives (...) Together they have been making the experience for them to exchange that knowledge, not only with members of that community but with members of other communities (own translation, NGO Extensionist, 2016).

In the following quote, we observe how it is recognized that the transmission of knowledge implies a "theoretical" knowledge and a "practical" knowledge that is learned through observation and practical experience, in addition to the fact that knowledge is rooted in *praxis*, it changes and adapts to the collective that (re)produces it⁴, (re)production in which that recreated knowledge is transformed, as we mentioned before. This interview also reveals the valuation of the knowledge that it implies, as referenced in this quote:

... they have passed on all the knowledge, the techniques... (...) with the students we made the ovens, (two referents) explained it, the guys learned and did it and the students too. (...) They are already trainers now. That is, they already give workshops and everything. And the student colleagues from the Technical Degree have collaborated in the systematization (own trans-

lation, Prohuerta-INTA Extensionist, 2017).

Giraldo and Rosett (2021) go further, describing it this way:

What must be understood is that in transformative agroecology, what is put into dialogue are not technologies - as is often misunderstood - but ways of living. The dialogue that occurs in the plot of whoever wants to share their experience, is a dialogue of ways of living, which includes practices and techniques, but also meanings, histories and affections (p. 721).

In two programs, the figure of the community promoter appears, who facilitates the task, since he acts as a "translator":

The program has been designed so that there are volunteer promoters in the organization and that character is the one who makes the difference in the approach of the technical program. Because he is thinking about his needs, but also about the needs of others. If he works, it is for himself, because he receives a benefit, he is a gardener, but I could be a gardener and stay in my house with my garden, but no, he opens up to the community, while I am doing paid work, there is a big difference in that (own translation, Prohuerta-INTA Extensionist, 2017).

In this "translation" character, implicitly, a possible construction of knowledge is not recognized in this communication, but rather what is pointed out is a facilitation for the transfer of knowledge and needs. Meanwhile, it would seem that the technical personnel would need to know the needs of the community and the peasant community needs to understand the "technical contents" or that these

⁴ In line with the Gramscian concept of *praxis*, we understand that in every (re)production of knowledge there is a creative act, which is not a mere copy of what came before, and therefore there is always a transformation present.

be adapted to their cultural system. In any case, the translator turns out to be a link in the chain of transfer or a bottleneck in the construction of a creative and transformative dialogue of knowledge. Although this could constitute the central agent of the mobilization of the transformation, leaving the technical personnel relegated to a kind of external consultant of the process, as could be read from the following reference. However, the other reference, the role of the promoter can be understood in another way, as a person who culturally integrates: ... *since the interior of Santiago is so culturally particular; (...) working with these promoters facilitated me a lot to go down a fairly well-oiled path, ... then they translated for me, suppose things, codes...* (own translation, INTA Extensionist about his previous experience in an NGO, 2016). Boaventura de Sousa Santos (2018) proposes translation as a necessary action in the ecology of knowledge to enable articulations to "make the expanded intelligibility of the contexts of oppression and resistance possible" (p. 55). In his analysis, he values at least two types of translation, the "diffuse" that occurs in collective spaces (workshops, meetings), not personalized, and the "didactic" that referents carry out, both orally and in writing to communicate outside the scope of the organization. The role of these "promoter" agents can be interpreted as a task of didactic translation, as long as it acts by putting the demands and needs of the community into dialogue and not submitting to institutional needs. The question is whether that translation favors the dialogue of knowledge or, by hierarchizing technical knowledge over peasant knowledge, disables it.

This discussion brings with it another characteristic of knowledge, which is authorship, its privatization, and the academic hierarchy of it. From the following quote, we identify the weight that institutional work has with respect to the ownership of knowledge, in which knowledge would be understood as private property instead of a common body of knowledge:

With the technicians (...) there are more stinginess or the academic training that so much partializes reality weighs a lot. We are thinking of an interdisciplinary strategy, which is very difficult, (...) The logic would be like opening the privatized kiosk of each one and making it available to solve a problem (own translation, INTA Extensionist, 2017).

In contrast, one of the interviewees pointed out that this practice also shows the importance of sharing knowledge as a requirement for its (re) production and as a virtuous situation, which is consistent with the theory about how peasant knowledge is constructed and structured in the *corpus*. In the following quotes, we observe the importance of this way of constructing and sharing knowledge, as part of the work in agroecology: *one of the greatest riches of Agroecology I think is knowledge... The knowledge that circulates, not the one that is privatized. ...Talking about an exchange of knowledge..* (own translation, INTA Extensionist, 2017).

Following Gómez, Ríos-Osorio and Eschenhagen (2015), building an epistemological practice different from that of conventional modern science is a challenge, in this sense the idea of epistemological pluralism⁵ is proposed. However, the lack of depth leads to unclear and even contradictory uses

⁵ Epistemological pluralism implies the validity and coexistence of different knowledge systems or multiple ways of knowing and thinking. Thus, it implies a questioning of transcendent objectivity (Gómez, Ríos-Osorio and Eschenhagen, 2015).

of concepts. Thus, the incorporation of traditional knowledge or the articulation between social and natural sciences can take instrumental rather than epistemological forms. This is evident in our case study.

3.6. *What is considered evidence?*

To address the question of "What is considered evidence?", we delve into the discussion around certification, that is, how the definition of agroecological production is determined. In Argentina, organic production is differentiated because certification is organized by a state-recognized institution, while in agroecology, it operates through social certification. Therefore, who knows, who defines what and how agroecological production is, is based on trust and recognition within the community (Cuéllar Padilla, 2009)⁶.

In general, productive experiences are taken as evidence, known through the accounts of those involved. In this context, the word, the narrative, and the experience are validated, as well as the connection and commitment that exists among individuals:

If it is agroecological production linked to ProHuerta, you have a social certification because precisely in the network, we all know each other and how we work. You have a promoter who knows the gardeners, the gardeners know how they are working with each other

and know if they are using agrochemicals or not (own translation, INTA Extensionist, 2017).

In the following quote, greater weight is given to experience as evidence of the effectiveness of diversified production. Additionally, the quote refers to a territorial aspect, highlighting the comparison between production models in the field due to the "coexistence" of different practices. Thus, it is noted that beyond the discourse, the work itself holds great value, as often referenced in the context of "Agroecological Beacons" (Faros Agroecológicos, Altieri and Nicholls, 2002):

We have grown melons with vermiculture, two hectares by hand in Clodomira. An early frost came, and all those who had planted with Agrochemicals, with hybrid seeds, their melons were burnt, but not ours. So then they would ask us... It was that battle, yes. It was a lot of work, more about doing than ideas (own translation, ProHuerta-INTA Extensionist, 2017).

Others view *praxis* as a validation process, where experience forms the basis of validation, along with dialogue and literature. On one hand, it serves as a reference *corpus*, and on the other, it can be understood as a formal validation of what is formulated from experience: *I believe it is never solely from literature. I think it comes from various sources. (...) based on experience and discussions, and then undoubtedly you resort to literature to*

⁶ In other Latin American countries, such as Brazil, progress has been made in the official recognition of participatory and solidarity certification logics. Following Fernández (2023), in Argentina, in recent years, these experiences of Participatory Guarantee Systems (PGS) have multiplied, reaching at least 20 instances. Participatory Guarantee Systems (PGS) are mechanisms that involve producers, consumers, and other actors in ensuring the quality of agroecological products. PGSs are a suitable tool for family producer organizations and have been promoted by public and private institutions, such as INTA and SAF. These systems aim to validate and ensure product quality through the active participation of those involved, including producer training and indicator verification. As of the writing of this article, there is no national regulation in Argentina, and its legitimization is achieved through institutional networks and/or local or municipal regulations.

solidify things (own translation, UNSE Extensionist, 2017).

In the interviews, tension and potential conflicts arise between this validation criterion and the criteria of "researchers". According to some, validation is seen differently, hierarchized. Validation is seen as a process strengthened by the diversification of sources that give coherence to the narrative:

Drawing on experiences of other colleagues (...) it is very important to promote dialogue among peers (...) Let another researcher say it. (...) I will do everything possible for a research colleague to be present. So that along with Antonio's life experience (a peasant specialist in beekeeping) and his economic experience as a cooperative family, there is Luis (an academic specialist in entomology), who explains the entire biological process. There should be so-called "scientific" knowledge (...) to also be there, as if saying "it's not just talk". (...) "it's like one official word authorizes another official word". (...) Until the word is heard and authorized (own translation, INTA Extensionist, 2017).

Drawing from these various references, it can be identified that validation from an agroecological perspective is based on coherence construction, strengthened by source diversification (through experiences and literature), as well as through relationships and commitment.

The tension not only exists between academic groups and farmers but also within the academic field of Agroecology, where there is a need to build "scientific" information about agroecology to validate the paradigm. This drive has led to a

certain need to "measure" agroecology in terms of efficiency, sustainability, and productivity under the paradigms of hegemonic science (Carrozza, 2021). This aspect is not central in the interviews, perhaps because it is more linked to the academic field of agroecology

than the technical field. However, in the case of the Integrated Forest Management with

Livestock program (Manejo de Bosque con Ganadería Integrada⁷), efforts are made to generate sustainability indicators for evaluation, aligning with the concept of the need to "measure".

3.7. How is knowledge evaluated?

In continuation with the previous section, evaluation is collectively considered by the extensionists, depending on peer validation. They attribute importance to collective appropriation and validation to give meaning to the process: *it is challenging to find these spaces, it is not so easy, and it is important to find them because otherwise, you feel alone in this utopia we propose, (...). That was, I believe, what limited me for a long time, (...). To encourage you to madness, you have to be several, if not, you are crazy* (own translation, UNSE Extensionist, 2017). Another person in the same vein, with great depth, says:

yes, that collective instance of resolution has been achieved... and a lot of things, one... sees that it takes on another form when the instance is collective... but it is not a discursive declamation, it is a concrete ma-

⁷ It should be noted that some programs in which the interviewed extension staff work, such as the Integrated Forest Management with Livestock program, are strongly criticized and questioned as public policies that are not easily embraced by peasant communities. Instead, they are seen as technical tools aimed at capitalized sectors to enable productive activities that may serve the reproduction of capital in coexistence with native forests.

nifestation...(...) We sometimes say 'we gather by the smell' there it is clearly evident that there are shared dreams that may not be explicit: of solidarity, effort, trust, (...) without passion and without supportive structures, it is a mess just like the other, because, what sets you apart? It is not a technical issue, it is not a matter of performance. What sets you apart is precisely the vitality of another structure. How it is sustained, how those tangles and that vitality are woven. In those knots that are formed and it is a tangle that grows, but that has its own dynamics. (...) let's say the structure, bonds of solidarity, cooperation, efforts, knowledge, (...) and... that is like the sage that allows you to build things.. (own translation, Prohuerta-INTA Extensionist, 2017).

This conception is consistent with feminist epistemologies that aim to construct a "dynamic" or "strong" objectivity, based on intersubjective, critical, and plural dialogue in continuous critical review, as well as on theoretical and empirical argumentation (Blazquez Graf, 2012). Where meaning is constructed through the generation of consensus and the collective construction of dialogues that intertwine to build a collective subjectivity, a collective identity.

3.8. Extension perspective between discourses and practices: coherence, gaps, and misalignments

As described so far, we observe that the contexts and positions of the extension personnel imply a diversity of situations, varying in their expertise in social sciences, natural sciences, or even local knowledge, and their institutional affiliation can be from the State, NGOs, or as private consultants (although the latter is not common in the sector).

The role generally assumed by the interviewees is that of extensionist, except in the case of universities where extension is conceived as part of a job (teaching) with another main task, teaching. There is a strong identification with the role of extensionist, although the ways in which they assume, problematize, and live that role differ widely, and at the same time there is a discomfort in it. This is consistent with what is described by Landini (2013; 2015a), according to whom extension personnel in Argentina would present perspectives and practices not entirely coherent within an extension paradigm, and there are also tensions between what is believed should be done and the restrictions given by the work context, which cover both the formation of work teams, the budget, or objectives. We also identify misalignments between the preferred methodologies and the most used ones, as Landini (2022) points out. We also agree with the author (2012) that the implementation of a covert transfer model of rural extension is rooted in some institutions and people (although it is not the perspective with which the personnel identify) and constitutes a key element of the problems identified by these people. In summary, there are persistent tensions related to the persistence of the "banking" model of extension identified by Freire (1984), where extensionists "deposit" knowledge and techniques in others, without dialoguing with the knowledge they have about their territory, the forms of production in it, etc. (and then the extensionists cannot transform themselves in this unidirectional interaction). These limitations are consistent with those identified in Brazil by Caporal (1991) but differ in context. In our case, we are far from thinking about disputing the meaning of hegemonic paradigms, rather we focus on studying the existing resistance or coun-

ter-hegemonic processes and, from a micro-political perspective, thinking about strategies that can strengthen them.

One problem identified that we associate with the "banking" perspective is the "cultural shock" linked to a certain ineffectiveness in the role of extensionist. In particular, an extensionist from SAF, but who was born in the area where he worked, pointed out a certain affinity with the local reality, but at the same time a certain distance from the role. This indicates that the "cultural shock" is not rooted solely in the place of birth and upbringing, there is a component of that shock that has to do with the role practiced from the institution. The technician stated: *It's that it's difficult from our role. It's difficult to understand the people themselves. (...) in the social [aspect] you learn by kicks, let's say (...) I think you first have to learn to relate to them and then gradually, train them* (own translation, SAF Extensionist, 2017).

On the other hand, difficulties are identified in SAF due to the determination of the role of the extensionist of the secretariat. However, it would not be possible to differentiate the perspective with and without funding, the form of action is through proposals presented from SAF: *Funding is a recurring issue for us (...) Funding has always been our institutional calling card, for better or worse. (...) Moving away from that position and proposing a more sustainable project is difficult. Not only because of the image the communities have of us, but also because of what it means for the identity of the technicians who are also used to going with that, you know? So sometimes people, when you go with a proposal and they see the possibility of funding, whether it's trees, seeds, or a package of agrochemicals, (...) they say yes. But when it comes to working, they*

start to drop out. (...) out of ten people who sign up, only 20% have an impact (own translation, SAF Extensionist, 2017).

A similar situation to that of SAF is described by Landini (2012) in Paraguay, where the peasantry understands the extensionist as someone who gives things. The author identifies this situation as a problematic consequence of a transferist perspective of extension.

Giraldo and Rosset (2021) associate the persistence of these practices with the perpetuation of the colonial development machinery, of an economic rationality associated with the incorporation of "peoples into hierarchical structures of domination and control" (p. 725), which places them in the condition of poverty from which they will be saved by the action of a benefactor.

Another difficulty associated with institutions is the importance and difficulty of building cohesive work groups and the construction of joint views of the work and the limitations imposed by the definition of some institutions. The following quote refers to the importance of group cohesion and political definition:

I believe it has strengthened us, I speak as a technical team, it was having a convinced technical team. We were all pulling in the same direction. We have all made a joint learning... if only one person had been with the issue, I don't know if they would still be here today. But we have been several, with different backgrounds (own translation, INTA Extensionist, 2017).

In contrast, a coordinator refers to the difficulty of working without clear guidelines: *The limitation is that there is no proposal, no clear management*

proposal (...) we have created it because we cannot be without a north. (...) there are things we do without knowing if (...) they support us or not" (own translation, INTA Extensionist, 2017). On the other hand, the difficulty of taking political positions (related to labor issues) while being part of state institutions is pointed out.

When I was in ProHuerta, we first talked about 'Food Security' until we managed to start talking about 'Food Sovereignty.' It was quite a topic. Because there was a debate about INTA's fear of discussing political issues within a state assistance program (own translation, INTA Extensionist, 2017).

These institutional limitations may seem minor, but the construction of collectives and ethical positions are fundamental elements for transformative action processes (Freire, 1984).

In summary, the discomfort in the role manifests in: the idea of a cultural clash, certain inefficiency in the extensionist role, mismatches between the perspective and work methodologies, lack of coherence in the extension perspective, institutional restrictions, including the importance and difficulty of building cohesive work groups, the construction of joint views of the work, thematic limitations imposed by some institutions, and hierarchies of knowledge.

Based on the results, we schematically propose three profiles of different situations in the exercise of extension linked to agroecology (Table 2) on a gradient ranging from one extreme called 'transferist,' describing more problematic and contradictory situations associated with deterministic perspectives of roles, institutions, and the family farming sector, to the other extreme of extensionists who describe

their work with acceptance and fluency associated with a less deterministic view of the role based on accepting a complex reality, difficult dialogues, and the need to work towards collective understanding for a transcendent goal, more linked to an 'emancipatory' extension (following Giraldo and Rosset, 2021). For example, the following quote highlights the flexibility of activities:

We work through workshops and meetings. We work a lot in a community-based way. (...) It is flexible in each place. We are talking about starting with the garden and then continuing to work on community development, socio-community development (own translation, Prohuerta-INTA Extensionist, 2017).

Another reference directly emphasizes that flexibility is a key point for working well: *...there are no recipes for a good extensionist, but there must be a predisposition to always have an open and sensitive perception of what the vibe of that place, those people is* (own translation, Prohuerta-INTA Extensionist, 2017). From this perspective, according to a referent:

the work is done from the process, which is not something that the technicians at the table are going to impose, but rather arises from the demand of the people, and it is expected that they will internalize it and empower themselves in that struggle, to defend their rights, whether it is to have the land, conserve the forest, have a healthy environment (own translation, NGO Extensionist, 2016).

We also pose this in terms of complexity, from a centrality placed simply on the technical productive task, to a perspective that includes the role of technical personnel with creative political

agency to transform the different dimensions and tasks involved in their role.

We identify a second situation, in those who adopt a posture more associated with inter-institutional management and articulation, thinking about the needs of the sector, which we associate with the agents described by González (2017), as mediators who do not assume a conciliatory role of the masses and who seek to prioritize family, peasant and indigenous agriculture as the protagonist subject of agroecology, and start from their needs to build and demand adequate public policies that guarantee their rights.

It is worth recognizing that beyond sharing a critical view of the productive model, it is not so simple to build an intersectoral articulation between extension personnel and social movements. What is at stake? We can assume that there is a dispute over who defines the orientation of public policies, which has a correlation in material aspects at stake, such as the possible construction of markets or subsidies. But we must also ask ourselves whether this place that social movements dispute does not have an impact on the meaning of the position of extensionists as "mediators". In reference to this question, the following quote from Zibechi (own translation, 2006, p. 143) reinforces the idea:

Especially for those who have been trained in the conviction that the knowledge of the 'others', be they Indians, peasants or the poor, 'was not only considered irrelevant, but even as one of the obstacles to the transformative task of development' (Lander, 2000: 31). When these 'obstacles' become subjects, and begin to change the course of history, and also produce knowledge that questions the monopoly held by specialists, that is, when the 'objects' become subjects, traditional agencies face a dilemma. Either they deny the new

realities, or they accept that a different but no less transcendent epistemic subject has been born, which inevitably leads them to lose power and privileges.

We can also associate this type of extension situation with the category of "reformist agroecology" (Giraldo and Rosset, 2021), which would equally suffer from problems of reproducing the inequalities of the transferist extension model.

Finally, we differentiate a third situation that we associate with the "emancipatory" extension perspective: those who work within a paradigm of building autonomy by strengthening the capacities of subjects and their organizations, promoting processes that favor autonomy with a strong material base in production and the Popular Economy. We link this position to greater epistemic equity and a more authentic dialogue of knowledge, in which the peasant *corpus* is sought to be strengthened through the dialogue of knowledge and (re)existence practices.

4. Conclusiones

We can only understand men and women by simply living, historically, culturally, and socially existing, as beings who make their way and, in doing so, expose themselves and surrender to that path they are making, which also reshapes them (own translation, Freire, 1993, p. 93).

Approaching the hermeneutics of extension personnel proved to be a fruitful approach to discuss the epistemology of Agroecology, useful for individual and collective reflection of extension personnel, not limited to those working in Santiago del Estero. The questions posed in this work can

serve as a guide for addressing reflection, and the experiences recounted can serve as a reference for thinking about possible changes. In our case, extension practice in agroecology proved to be very diverse. We identified the existence of gaps and mismatches between discourses and practices, contradictions also noted in other cases associated with the persistence of the banking model of extension. These contradictions are more associated with institutionalized practices, involving tensions between individual-collective-institution.

While it is postulated that "there are no recipes for a good extensionist," here we identify common elements associated with an "emancipatory" extension, in line with Freire's (1984) communicator model. The existence of complex objectives is highlighted, linked to shared utopias that give general coherence to the practice; a perspective of collective elaboration of strategies from critical constructivist perspectives, with an emancipatory horizon, defined (e.g., Popular Education or Social Psychology), assuming complex, comprehensive, and situated knowledge in dialogue with the idea of the peasant knowledge *corpus*, and the roles of intercultural translation, implying tensions with authorship and the necessary de-hierarchization of "technical," quantitative, "theoretical," and "scientific" knowledge. They also position themselves critically in the conflict between agribusiness and family, peasant, and indigenous agriculture, alongside the latter sector, a conflict in which the legitimacy of knowledge postulated by each social group is also disputed. These notions are key to the exercise of epistemological pluralism. The validation of knowledge at play in participatory guarantee systems can be associated with what feminist epistemologies propose as "dynamic" or "strong" objectivity based

on intersubjective dialogue that constructs a collective identity. The importance of community fabric and the constant process of formation, learning, and *praxis* in collectives and successive references to popular education emerge. It is evident that, although there may not be an enunciation of specific references in the work of agroecological extension personnel, there are many conceptual definitions of how work in agroecology is thought. We emphasize the importance of valuing extension personnel as a key actor in the (re)construction of agroecological knowledge. Thus, we can hypothesize a convergence towards Agroecology of processes that come from Popular Education. In this sense, we propose the potential to strengthen the articulation between Rural Extension, Popular Education, Agroecology, and Food Sovereignty, being able to identify all within Latin American Environmental Thought.

In conclusion, the diversity of situations systematized in profiles of extension situations linked to agroecology (Transferist, Mediator, Emancipatory) would allow individuals to situate themselves and recognize themselves schematically to rethink the coherence with which their own practice is carried out and to identify more clearly the difficulties felt. By identifying it, there is the potential to change towards desired values. Additionally, references to other situations can help envision alternative extension practices that may be more suitable for personal or institutional objectives for each individual.

TABLE 2 – Extension profiles linked to agroecology in Santiago del Estero

	Transferist	Mediators	Emancipatory
	Diversity of people, knowledge, situations, and experiences. Complexification from a more reductionist vision to a more complex, comprehensive, and intersectoral vision, situated politically, socially, and culturally.		
What is there? What exists?	Material objectives. Tensions and problems to achieve their objectives. "Cultural clash".	Recognition of a community of peers and the need to transform institutional spaces. Political dimension of the peasant problem, interference in other decision-making spaces. Articulation among peers.	The community is what gives meaning to the work. Community fabric. Shared dreams, fabric, bonds of solidarity, cooperation, efforts, knowledge, trust, and passion.
	Critical vision of the system. Improving the conditions of the family farming-peasant-indigenous sector. In general, the objectives/problems are conceived with a complex view, with multiple dimensions. Different complexity of objectives (from productive to political and utopian). Ethics or utopias that build identity and meaning.		
What is the purpose of the inquiry?	Change productive practices. Diversification. Sustainability. Production of healthy food. Misalignments between objectives, discourses, methodologies, and practices. Little articulation between personal and work life.	Accompany, follow social processes. Work as part of and articulated with the needs of the territory. Focus on the real demands in the province. Tensions between personal-collective-institutional objectives.	Work on a liberating education, but one that commits, that gives meaning to life. Community fabric. Common good.
	No recipes. Importance of knowing local needs. Use public or NGO tools to contribute to the sector.		
How are problems transformed?	Paternalistic. Identify problems to bring a suitable solution (improves if local culture and needs are known).	Articulated strategies are planned from institutions.	Promote Popular Education processes. Problematize, reflect, plan strategies and act. Think of a strategy together or accompany organizations to develop strategies.
What is known?	The complex, comprehensive, and situated knowledge is recognized. The imposition of the hierarchy of research over other knowledge and its reductionist view is criticized.		

What is known?	Technical knowledge necessary to improve peasant production.	The needs of the community must be known. Peasant knowledge is recognized.	Situated in currents of social thought (Popular Education and Social Psychology) for the transformation of reality. A "theoretical" knowledge and a "practical" knowledge learned through observation and practical experience are recognized. Recognition of the peasant corpus.
How is knowledge (re) constructed?	Activities focused on training understood as transfers. Dialogue or "social" knowledge is necessary for people to understand what they have to do. Technical personnel would not produce knowledge. Figure of promoters as a link.	Institutional articulations, interdisciplinary with methodologies defined by institutions to work based on local knowledge and knowledge needs. Peasant knowledge as a source or application contexts.	Systematization of experiences. Constructivist perspective. Knowledge is rooted in praxis, changing and adapting to the collective that (re)produces it. Promoter as facilitator of dialogue and cultural integration.
What is considered evidence?	Activities focused on training understood as transfers. Dialogue or "social" knowledge is necessary for people to understand what they have to do. Technical personnel would not produce knowledge. Figure of promoters as a link.	The productive experiences are taken as evidence, through visual inspections. Bibliography as support. Validation necessary for inter-actor articulation and political interference.	<i>Praxis</i> . The experiences (material and territorial), like Agroecological Beacons. The narrative is evidence. It is strengthened by the links.
How is knowledge evaluated?	Social or participatory certifications. Peer validation and the formation of collectives. Intersubjectivity.	Interdisciplinary certification. Indicators to "measure" sustainability. Validation of shared objectives for political interference.	Social, participatory certification. Validation given by the link, trust, commitment, and recognition of the community.

SOURCE: own elaboration based on interviews.

5. References

- Aleman, C. E.; Sevilla-Guzmán, E. ¿Vuelve la extensión rural? Reflexiones y propuestas agroecológicas vinculadas al retorno y fortalecimiento de la extensión rural en Latinoamérica. *Realidad Económica*, 227, 52-74, 2006.
- Altieri, M. A. The ecological role of biodiversity in agroecosystems. In: Paoletti, M. G (Eds.). *Invertebrate biodiversity as bioindicators of sustainable landscapes*. Elsevier, 19-31, 1999. doi: 10.1016/C2009-0-00699-0
- Altieri, M. A.; Nicholls, C. I. Un método agroecológico rápido para la evaluación de la sostenibilidad de cafetales. *Revista Manejo Integrado de Plagas*, 64, 17-24, 2002.
- Altieri, M. El estado del arte de la agroecología: revisando avances y desafíos. In T. León.; M. A. Altieri (Eds.) *Vertientes del pensamiento agroecológico: fundamentos y aplicaciones*. Bogotá, Universidad Nacional de Colombia, 77-104, 2010.
- Baraona, R. Conocimiento campesino y sujeto social campesino. *Revista Mexicana de Sociología*, 49(1), 167-190, 1987.
- Blazquez Graf, N. Epistemología feminista: temas centrales. In: Blazquez Graf, N.; Flores Palacios, F.; Ríos Everardo, M. *Investigación feminista: epistemología, metodología y representaciones sociales*, 21-38, 2012. Disponible en: https://biblioteca.clacso.edu.ar/Mexico/ceich-unam/20170428032751/pdf_1307.pdf
- Cacivio, R. Riesgos psicosociales en entornos laborales de extensionistas en la Argentina. In: Landini, F. (Coord.). *Hacia una psicología rural latinoamericana*. Buenos Aires, Clacso, 121-126, 2015.
- Caporal, F. R. *A Extensão rural e os limites à prática dos extensionistas do serviço público*. Tesis (Mestre em Extensão Rural). Universidade Federal de Santa Maria, 1991.
- Caporal, F. R. *La extensión agraria del sector público ante los desafíos del desarrollo sostenible: el caso de Rio Grande do Sul, Brasil*. Tesis (Doctorado en Agronomía: Programa Agroecología, Campesinado e Historia). Universidad de Córdoba. 1998.
- Caporal, F. R.; Costabeber, J. A. Agroecología e sustentabilidade. Base conceptual para uma nova Extensão Rural. En: *World Congress of Rural Sociology*, 10, 2000, Rio de Janeiro. Anais... Rio de Janeiro: IRSA, 114-123, 2001.
- Carr, W.; Kemmis, S. *Becoming critical: education knowledge and action research*. Routledge Falmer, Oxon, 1988.
- Carrozza, T. J. Hacia una agronomía en disputa: modelos de acumulación, construcción de conocimiento agronómico y nuevas corrientes teóricas. *Sociedad Hoy*, 29, 139-167, 2021. Disponible en: https://revistas.udec.cl/index.php/sociedad_hoy/article/view/7426
- Casadinho, J. S. La agroecología: bases científicas, historia local y estrategias productivas en la construcción de un espacio de desarrollo integral, ético y humano. In: Hernandez, V. et al. (Comps.) *La Agroecología en Argentina y en Francia: miradas cruzadas*. Buenos Aires, INTA, 13-30, 2014.
- Cittadini, R. Limitaciones y potencialidades de la Agroecología: enseñanza de una experiencia a gran escala basada en los principios de la agroecología, el Pro Huerta en Argentina. En: Hernandez, V. et al. (Comps.) *La Agroecología en Argentina y en Francia: miradas cruzadas*. Buenos Aires, INTA, 13-30, 2014.
- Cuéllar Padilla, M. C. *Hacia un sistema participativo de garantía para la producción ecológica en Andalucía*. Tesis (Doctorado en Agroecología, Sociología y Desarrollo Rural Sustentable). Universidad de Córdoba, 2009.
- De Arce, A.; Salomón, A. Promover el bienestar rural: Los extensionistas del INTA en el terreno (1956-1980). *Travesía* (San Miguel de Tucumán), 20(2), 179-201, 2018.
- De Sousa Santos, B. Introducción a las Epistemologías del Sur. Epistemologías del sur. In: Meneses y Bidaseca (Coord.). *Epistemologías del sur*. CLACSO; CES, 2018, 25-61.
- Dessimon Machado, J.; de Hegedüs, P.; Bighelini da Silveira, L. Estilos de relacionamiento entre extensionistas e productores: desde uma concepção bancária até o "empowerment". *Ciência Rural*, 36, 641-647, 2006.
- Díaz Tepepa, M. G.; Ortiz Báez, P. A.; Núñez Ramirez, I. *Interculturalidad, saberes campesinos y educación*. El Colegio de Tlaxcala. A. C. Fundación Boll, SEFOA, 2004.
- Dominguez, D. Cartografía de la agroecología y las disputas territoriales en Argentina. *Revista NERA*, 22(49), 297-313,

2019.

Domínguez, D.; Barbeta, P. Apropiación y violencia en el agro argentino actual: un análisis crítico del agronegocio. *Trabajo y sociedad*, 23(38), 467-486, 2022.

Fernandez, Rosa. *Sistemas participativos de garantía agroecológicos en la Argentina*. Ciudad Autónoma de Buenos Aires, Ediciones INTA, 2023.

Folguera, G. Un problema no es sólo un problema. Posiciones, hermenéuticas y políticas públicas relativas a la salud de las abejas. *CUHSO (Temuco)*, (ahead), 0-0, 2021.

Freire, P. *¿Extensión o comunicación?* México, Siglo XXI, 1984.

Freire, P. *Pedagogía de la esperanza: un reencuentro con la pedagogía del oprimido*. Buenos Aires, Siglo XXI, 1993.

Freire, P. *Educação como prática da liberdade*. Editora Paz e Terra, 2014.

Giraldo, O. F. Hacia una ontología de la Agri-Cultura en perspectiva del pensamiento ambiental. *Polis. Revista Latinoamericana*, 34, 2013. Disponible en: <http://journals.openedition.org/polis/8773>

Giraldo, O. F.; Rosset, P. M. La agroecología en una encrucijada: entre la institucionalidad y los movimientos sociales. *Guaju*, 2(1), 14-37, 2016.

Giraldo, O. F.; Rosset, P. M. Principios sociales de las agroecologías emancipadoras. *Desenvolvimento e Meio Ambiente*, 58, 708-732, 2021. doi: 10.5380/dma.v58i0.77785

Giraldo, O. F.; Toro, I. *Afectividad ambiental: sensibilidad, empatía, estéticas del habitar*. Campeche, El Colegio de la Frontera Sur, 2021.

Gliessman, S.; Rosado-May, F.; Guadarrama-Zugasti, C.; Jedlicka, J.; Cohn, A.; Méndez, V.; Cohen, R.; Trujillo, L.; Bacon, C.; Jaffe, R. Agroecología: promoviendo una transición hacia la sostenibilidad. *Ecosistemas*, 16(1), 2007. Disponible en: <https://www.revistaecosistemas.net/index.php/ecosistemas/article/view/134>

Gómez, L. F.; Ríos-Osorio, L.; Eschenhagen, M. L. Las bases epistemológicas de la agroecología. *Agrociencia*, 49(6), 679-688, 2015. Disponible en: http://www.scielo.org.mx/scielo.php?script=sci_arttext&pi-

d=S1405-31952015000600007&lng=es&nrm=iso

González, F. Hegemonía y desarrollo rural: análisis territorial de políticas de desarrollo rural en Benito Juárez (Buenos Aires, Argentina). *Geopolítica*, 8(2), 203-223, 2017. doi: 10.5209/GEOP.55017

Guber, R.; Guarini, C.; Kaufman, E.; Casabona, V. *El salvaje metropolitano: a la vuelta de la antropología postmoderna: reconstrucción del conocimiento social en el trabajo de campo*. Buenos Aires, Ed. Legasa, 1991.

Hernández, V.; Goulet, F.; Magda, D.; Girard, N. *La agroecología en Argentina y en Francia: miradas cruzadas*. INTA, Ciudad Autónoma de Buenos Aires, 2014.

Lander, E. Ciencias sociales: saberes coloniales y eurocéntricos. In: Lander, E. (comp.) *La colonialidad del saber: eurocentrismo y ciencias sociales* Buenos Aires, CLACSO, 2000, 4-23.

Landini, F. P. Problemas en la extensión rural paraguaya: modelos de extensión en la encrucijada. *Cuadernos de Desarrollo Rural*, 9(69), 127-149, 2012.

Landini, F. P.; Bianqui, V.; Russo, M. Evaluación de un proceso de capacitación para extensionistas rurales implementado en Paraguay. *Revista de Economía e Sociología Rural*, 51, s009-s030, 2013.

Landini, F. P. Perfil de los extensionistas rurales argentinos del sistema público. *Mundo Agrario*, 14(27), 2013. Disponible en: <https://www.mundoagrario.unlp.edu.ar/article/view/MAv14n27a03>

Landini, F. P. Concepción de "extensión rural" de los extensionistas rurales argentinos que trabajan en el sistema público nacional con pequeños productores. *Cuadernos de Desarrollo Rural*, 12(75), 33-53, 2015a.

Landini, F. P. La noción de psicología rural y sus desafíos en el contexto latinoamericano. In: Landini, F. P. *Hacia una psicología rural latinoamericana*. Buenos Aires, Clacso, 2015b, 21-34.

Landini, F. Concepción de extensión rural en 10 países latinoamericanos. *Andamios*, 13(30), 211-236, 2016.

Landini, F. P.; Gallardo-López, F. ¿Qué tipos de métodos de extensión prefieren y usan los extensionistas rurales?

- Comparación internacional y construcción de una tipología de acuerdo a sus métodos. *Revista de Economía e Sociología Rural*, 60(3), e238534, 2022.
- Leeuwis, C. *Communication for rural innovation*. Rethinking agricultural extension. Oxford, Blackwell Science, 2004.
- Mançano Fernandes, B. Espaços agrários de inclusão e exclusão social: novas configurações do campo brasileiro. *Agrária*, 1, 16-36, 2004.
- Marinaro, S.; Sacchi, L.; Gasparri, N. I. From whom and for what? Deforestation in Dry Chaco from local-urban inhabitants' perception. Perspectives in Ecology and Conservation, 20(2), 141-150, 2022. doi: 10.1016/j.pecon.2021.12.003
- Mielgo, A. M. A.; Guzmán, E. S. Reflexiones sociológicas sobre la agroecología. *Inguruak: Soziologia eta zientzia politikoaren euskal aldizkaria*= Revista vasca de sociología y ciencia política, 25, 167-172, 1999.
- Movimiento Campesino de Santiago del Estero-Vía Campesina (MOCASE-VC). *Memorias de los Orígenes de la Central Campesina de Pinto*. Quimilí, Argentina, MoCASE-VC, 2010.
- Movimiento Campesino de Santiago del Estero-Vía Campesina (MOCASE-VC). *Memorias de los Orígenes de la Central Campesina de Productores del Norte*. Luján, Argentina: Editorial de la Universidad Nacional de Luján, 2016.
- Noguera de Echeverri, A. P. *El reencantamiento del mundo: ideas para una ética-estética desde la dimensión ambiental*. Programa de las Naciones Unidas para el Medio Ambiente - PNUMA - Oficina Regional para América Latina y el Caribe; Universidad Nacional de Colombia. IDEA. 2004
- Organización de las Naciones Unidas para la Agricultura y la Alimentación, F. *La ADRS y la agroecología*. ADRS, Sumario de política. Roma. Italia., FAO, 2007.
- Paz, R. El campesinado en el agro argentino: ¿repensando el debate teórico o un intento de reconceptualización? *Revista Europea de Estudios Latinoamericanos y del Caribe/European Review of Latin American and Caribbean Studies*, 81, 65-85, 2006. Disponible en: <https://www.jstor.org/stable/25676232>
- Red Agroforestal Chaco Argentina. Monitoreo de Deforestación en los Bosques Nativos de la Región Chaqueña Argentina. Informe Bosque Nativo en Santiago del Estero. Ley de Bosques, análisis de deforestación y situación del Bosque chaqueño en la provincia. Observatorio de Tierras, Recursos Naturales y Medioambiente. REDAF, Reconquista, 2021. Disponible en: <https://redaf.org.ar/wp-content/uploads/downloads/2021/08/informe-2021.pdf>. Acceso el: 6 feb 2024.
- Rogoff, B.; Turkanis, C. G.; Bartlett, L. *Learning together: children and adults in a school community*. Oxford University Press, New York, 2001.
- Rosset, P. M.; Barbosa, L. P.; Val, V.; McCune, N. Pensamiento Latinoamericano Agroecológico: the emergence of a critical Latin American agroecology? *Agroecology and Sustainable Food Systems*, 45(1), 42-64, 2021. doi: 10.1080/21683565.2020.1789908
- Saldaña, J. *The coding manual for qualitative researchers*. Sage Publications, Los Angeles, CA, 2015.
- Sarandón, S.; Flores, C. C. La Agroecología: un paradigma emergente para el logro de un Desarrollo Rural Sustentable. In: Hernandez, V. et al. (Coords.) *La Agroecología en Argentina y en Francia: miradas cruzadas*. Buenos Aires, INTA, 2014, 53-70.
- Sarandón, S. Flores, C. Agroecología. (América Latina, 1989-2020). In: Muzlera, J.; Salomón, A. (Eds.). *Diccionario del agro iberoamericano*. Buenos Aires: TeseoPress, 59-68, 2019.
- Sicard, T. E. L. Agroecología: desafíos de una ciencia en construcción. *Agroecología*, 4, 7-17, 2019. Disponible en: <https://revistas.um.es/agroecologia/article/view/117121>
- Soto, G. Situación socio-económica del Chaco argentino. *La situación ambiental Argentina*. 2005. Disponible en: <https://ced.agro.uba.ar/gran-chaco/sites/default/files/pdf/sem2/FVSA-Ecorregi%C3%B3n%20Chaco%20Seco.pdf>. Acceso en: 6 feb 2024.
- Tittonell, P. A.; Grazia, J. D. Un marco conceptual para la identificación y evaluación de alternativas agroecológicas en investigación. *Revista Brasileira de Agroecologia*, 6(2), 3-12, 2011.
- Valles, M. S. *Técnicas cualitativas de investigación social*.

Vallehermoso, Síntesis Editorial, 2000.

Vía Campesina. (2018-2022). *Vía campesina: Roma: ¡Sin nuestros pueblos, no hay Agroecología!* Disponible en: <https://viacampesina.org/es/roma-sin-nuestros-pueblos-no-hay-agroecologia/>. Acceso el: 6 feb 2024.

Wezel, A.; Bellon, S.; Doré, T.; Francis, C.; Vallod, D.; David, C. Agroecology as a science, a movement and a practice. A review. *Agronomy for sustainable development*, 29(4), 503-515, 2009. doi: 10.1051/agro/2009004

Zibeche, R. La emancipación como producción de vínculos. In: Ceceña, AE (Coord.). *Los desafíos de las emancipaciones en un contexto militarizado*. Buenos Aires, CLACSO, 2006, 123-149.