

## Knowledge about and knowledge with: contributions from feminist research to knowledge co-production for pastoral systems

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### Abstract

Globally, the gender dynamics of rangeland social-ecological systems have received scant attention. Further, research paradigms, methods and methodologies that leave little room for equitable engagement with research participants and genuine action-oriented research-practice partnerships dominate in pastoralist/rangeland studies. Our research is informed by a feminist philosophy of science and based on decolonial and feminist political ecology studies that focus on gendered science and knowledge production. Feminist research calls for reflection on who produces knowledge and how such knowledge is used and shared. Feminist practices such as reciprocity, care, and positionality, cultivate awareness of the power dynamics embedded in the research process and motivate us as researchers to counteract asymmetrical or extractive relationships when we identify them. In this paper we first introduce the principles of our feminist research, and then reflect on our experience as researchers and as activists or participants in the Spanish and Catalan networks of women shepherdesses and livestock operators.

### Introduction

In the last few decades, several approaches have emerged oriented towards transforming the practice of science to focus on societal problems and engage multiple social actors in knowledge co-production (Knapp *et al.*, 2019). First, in order to understand wicked problems, science processes are incorporating multiple disciplines (Klenk and Meehan 2017). Second, in order to produce knowledge that may support societal solutions to wicked problems and involve the voices of those affected by such problems, scientists increasingly recognize the need to collaborate with other members of society, learn together, and implement co-produced knowledge in socially legitimate actions (Lemos and Morehouse 2005). Several scholars have explored the transformative effect of transdisciplinary processes and co-production of knowledge in environmental science (Klenk y Meehan 2017), while others highlight failures in achieving empowerment and societal transformation, increasing unequal power relations (Turnhout *et al.*, 2020). Feminist and decolonial studies of science have profoundly transgressed mainstream epistemological and methodological approaches and logic of research (Lanza Rivers 2019). In this paper we present

feminist studies of science and decolonial feminism that focus on the process of knowledge co-production and integrate science and activism (see similarly Irene-Iniesta *et al.*, 2020) grouped in three categories of principles: 1) positionality and reflexivity, 2) embodiment and co-production of knowledge and 3) reciprocity and ethic of care that may bring transformation and emancipation. **Reflexivity** refers to the examination of one's own beliefs, judgments and practices during the research process and how these may have influenced the research. In feminist practice it is important to reflect about choices made about what to study and what studies, that are, according to cultural studies, culturally and socially bounded decisions that reflect power and values (Schnabel, 2014). Such critical reflection is also related to power dynamics that may exist between researchers and subjects of research and the impact in the research and in generating and circulating knowledge (Rose 1997). This concept is defined by feminist studies of science as **positionality**. Feminist studies denounce that based on a biased vision of knowledge as universal, objective and rational, science has legitimated its powerful position with respect to other knowing systems. As researchers we should

trace how our social position, as urban, white and educated subjects, may shape knowledge production (Faria and Mollet, 2016). Specifically, decolonial feminist studies have evidenced the relevance of taking into account multiple voices, knowledge and knowing systems, such as from indigenous people and farmers' systems, that may understand and represent relationships with nature and its management very differently from western science, within **processes of knowledge co-production**. However, the efforts could not be only based on inclusion of women's or indigenous voices into the process. Frequently, structural barriers of intersectional discriminations of voices, based on country of origin, ethnicity, education system, race, and other individual and collective social identities, should be recognized. Similarly, researchers in feminist political ecology and feminist geography (Sultana, 2014; Mollett and Faria, 2013) called for environmental studies to move 'beyond gender', to include analyses of multiple and intersecting power inequities and (un)justice and challenge dominant assumptions of western knowledge systems (Harris, 2015) which constitute barriers for effective co-production. Feminist theorists have also invited researchers to overcome the duality of mind and body challenging the positivist science-based knowledge production. This calls for novel ontological but also epistemological approaches that have often led to new methodological proposals of working with literature and arts (Benessia *et al.*, 2012). Drawing from activist research and decolonial anthropology, epistemic-corporeal workshops consider **body and emotions** as spaces from which to explore collaboratively (researchers and non-) embodied and experiential knowledge. Finally, a commitment to **reciprocity and care ethic** emerges from the practice of reflexivity that motivates researchers to counteract asymmetrical or extractive relationships when we identify them (Smith 1999). It implies demonstrating long-term commitment to local research partners, pursuing questions and needs they identify, engaging with them as co-researchers and returning results for a better understanding, offering training and capacity building. It also implies nurturing a new culture of collaborations, shared learning and relationships of trust, respect of time and conviviality, essential for understanding complex social and spatial processes (Caretta 2019). Moreover such ethic should orient our way of conceiving and doing science. Slow and care-oriented scholarship in geography have recently challenged a neoliberal model of science, based on extractive, transactional, competitive, and exploitative relationships among researchers and of these with social actors that intervene in research. (Mountz *et al.*, 2015). To date, there

are a growing number of rangeland studies with a transdisciplinary co-production knowledge approach (Reid *et al.*, 2020), but feminist perspectives in rangeland research are almost entirely absent (Wilmer and Fernandez-Gimenez 2016).

In this paper we reflect on our application of the feminist research principles of reflexivity, positionality, knowledge co-production, embodiment, reciprocity and ethics of care in the context of our experience researching with and about women pastoralists in Spain. By doing so, we provide an empirically grounded theoretical and methodological context for the other papers in this session. We hope that such reflections may offer one example to inspire others towards transformative and emancipatory future research.

### Context and Methods

Until recently, women have been largely invisible participants in extensive livestock management systems in most areas of Spain. Further, little to no research exists on women's roles, knowledge or experiences in these systems, despite the fact that women's participation in agriculture is highest in the livestock sector (Majoral and Sánchez Aguilera 2002). Yet understanding women pastoralists is critical. The lack of **women in pastoralism** may compromise generational renewal in these management systems, further fostering rural masculinization and ultimately abandonment (Fernández-Giménez and Fillat Estaque 2012, Oteros-Rozas *et al.*, 2013). Further, women may play key roles in both conserving and transmitting management knowledge and culture, and in innovating and transforming extensive pastoral systems towards greater sustainability (Fernández-Giménez, Ravera and Oteros-Rozas, submitted). To address the lack of research on and with women pastoralists in Spain, we carried out two different research projects that aimed to understand women's lives and roles in extensive pastoral systems using in-depth life-history interviews coupled with participant observation and participatory workshops with research participants. For this paper, we each reflected individually on our experiences in these action-research processes in relation to feminist research principles. We then identified common themes and individual variations among the 3 authors' experiences to extract lessons learned from applying feminist principles to our research on Spanish women pastoralists.

### Findings and Lessons learned from our experiences

#### Positionality and Reflexivity



The three authors have in common advanced education in both applied ecology and social sciences, and grew up in large cities (EOR, FR) or towns (MFG). We each gained experience in rural life as farm/ranch workers (MFG) and/or researchers in rural settings (all). EOR is Spanish, while FR is Italian now permanently residing in Spain and MFG is from the US of Spanish heritage. MFG previously lived for a year and carried out research in one study site and FR conducts long-term field-work research in the Pyrenees, while EOR developed extensive fieldwork among transhumant pastoralists for 4 years and since 2016 helped facilitate a network of Spanish women pastoralists, several of whom participated in the study. Both FR and EOR identify as feminist agro-ecology activists as well as researchers, while MFG identifies as a researcher and advocate for extensive pastoralism. Both EOR and FR relocated from cities to small rural communities during the research. MFG is in her late 50s, FR in her 40s and EOR in her 30s. Our backgrounds thus positioned each of us in different ways in relation to our various study communities and participants, which sometimes dissolved and sometimes reinforced traditional researcher-participant dynamics. On one hand, we recognized our privilege as highly-educated urban residents with greater economic security and information access than most of our rural participants. On the other, our own life histories as women with experiences like parenting, losing a parent, or moving from a city to a village, created a bond of shared experience with different participants. MFG and FR both benefited to some extent from being “foreigners,” releasing us from some expectations, and garnering increased appreciation for our skills in local languages (Catalan for FR, Spanish for MFG). EOR had close personal relationships with some participants due to her facilitator role, and FR had personal friendships with some Catalan women participants, which provided additional insight in our interpretations. Each of us, thus, navigated multiple and sometimes conflicting positions such as researcher, activist/advocate, facilitator, and/or friend, relative to our participants and to the extensive livestock sector. Balancing these different roles and positions required adapting our research objectives and rhythms, and working to maintain trust and transparency with our participants and each other. Building upon our awareness of our positionalities, we practiced reflexivity by examining how our positions, beliefs and practices affected the research, and the power dynamics therein, especially in the context of a particular political and social moment. FR reflected on how she is rewarded for research publications and grants in which the “local

communities are the protagonists,” but for which they receive little credit. She counteracted this imbalance by engaging women in her study site in arts activities through which they communicate key findings and messages from the research to a wider audience. EOR leveraged her facilitator and activist roles to bring our research participants to scientific conferences and international policy forums, where their voices directly reached a broad audience. MFG recognized her own developing understanding of feminist theory and practice through the project, and in the light of terrible racial injustices in her own country, critically reflected on the limitations of our research in not including participants from diverse racial and ethnic backgrounds within Spain. Our different ages, experiences and political perspectives also shaped what we emphasized in our data interpretations. For example, FR tended to emphasize the importance of newcomers women in transforming agrifood systems, while MFG was deeply interested in the contributions of older “traditional” rural women to both conservation and innovation in extensive pastoral systems. Ongoing reflexivity through individual and collective critical examination supports rigorous qualitative analysis and challenge us to continually disrupt and redress power differentials in pastoral/rangeland research.

### **The process: co-production of knowledge and embodiment**

We have addressed co-production, knowledge pluralism and embodiment by documenting and valuing women’s knowledge and experiences via interviews and gatherings, incorporating artistic approaches, engaging them as co-researchers to the extent possible in interpretation, discussions of how to present and use the data and offering of co-authorship. First, we chose the sample of women to interview so that it could be comprehensive of a diversity of situations of women in pastoralism, e.g. in terms of age, family-relationship (daughters, mothers, partners of other pastoralists, newcomers into farming,...), origin (urban, rural,...) geographical area of Spain, type of livestock and breeds, production model or relationship with and participation in social organisations, among other criteria. Interviews were held during long hours (usually spending at least a day with each participant), combining formal and informal conversations, partially recorded, in the field accompanying herding or other farming tasks, or at their homes. Gatherings took place in different settings. While we tried to hold them in comfortable places that allowed for conviviality, this was not always possible. However, this allowed us to notice and reflect about the differences in the process between the



case where the gathering was held over a weekend of coexistence in a leased vacation home, with women participating and sharing also for instance home-made food and relaxed and intimate moments; or when the gathering was held in a conventional meeting room in a city centre, over a day with a lunch in a restaurant. Choosing, arranging and observing the use of the physical spaces where interviews and gatherings took place, and their influence on participants' and researchers' moods, attitudes, comfort, easiness, also had an influence in the outcomes of the process, as a lived and embodied experience. We observed that food had always a very central and special role in the shared spaces: whether it was a lunch together with an interviewee at her home or a restaurant, mutual gifts exchanged as a form of gratitude, a shepherdess and cheese maker bringing her cheese to a public event, an incredibly diverse lunch with 10 women serving their own products and home-made food and displaying their proudness about their own gastronomic identities, or the relaxed atmosphere of them sitting around a table in a restaurant, enjoying a special day being served the food without having needed to prepare it themselves. Food, due to its sensual, visceral nature has been considered a strategic place from which to begin to understand identity, difference and power. Feminist geographers have called for a "visceral approach to food" through which observing how the body offers a domain that makes room for the construction of political claims that are paradoxically 'outside' of normative discourse, despite also being fully 'inside'. Women farmers are ultimately food producers, so we argue that consciously incorporating a space for food in feminist research approaches opens up a significantly different space for expression and exploration of identities, political claims and overall embodiment. Another approach we have incorporated in our work in order to address embodiment of identities, experiences and knowledge, has been that of arts. Based on image theatre, a tool within social theatre and theatre of the oppressed, we built subsequent body-statutes with one's and others' bodies and totems representing their identity as livestock farmers and women, which participants were invited to bring from home. Participants and researchers played around and consciously expressed our embodied identities and our relationship with extensive livestock farming. We could also share our life histories, fears, vulnerabilities, pride, etc. and learn about others', not only with words, through rational and cognitive experiences, but also through a physical and emotional experiences. As researchers, these kind of proposals require skills and a familiarity, which are only achieved with time, sensitivity and care. Other artistic

approaches we explored were literary and visual arts (a comic and an itinerant exhibition), in order to capture not only through rationality and verbal discourses, but rather through emotions, the key messages that shepherdesses would communicate to the society and offer them the chance to do so, working with local artists. They appreciated these experiences as a form of co-production, given their involvement in the exhibition with a space for telling their stories through artistic means.

### **Reciprocity and ethic of care for transformation**

Caring the process and the relationships with participants motivates us as researchers to counteract asymmetrical or extractive relationships when we identify them. We do this by demonstrating our commitment to local partners, pursuing questions they identify, engaging with them as co-researchers by sharing interview transcripts with individuals and then preliminary results at regional workshops, involving participants to participate in artistic communication of the results of the research. We ensured that the results are returned to the community in a form they can understand and use and we invited participants to co-author papers, even if those who expressed interest have not had time to follow up. As previously suggested take care of the others includes for us to make attention both by researchers and participants to physical needs of everyone, including physical health, carefully choosing the spaces for interviews and activities that may favour conviviality, inviting people to spend time together. Giving space and legitimacy to the "personal" (sharing life experiences, needs, opinions, dancing and singing...) is a way to deconstruct the power relation of research, seen as extraction of information. The team aspires to support women, especially those already organized via GeR or ramaderes.cat, in advancing their self-defined goals/agenda for increasing visibility of and support for women herders, as well as extensive livestock production overall. In the case of EOR, as co-facilitator de GeR, and FR, who has spent years with local communities in the Pyrenees, personal relationships the space of research has been transformed in a space of confidence, listening and friendship with women. Such listening space may in some cases catalyzing changes in self-perception, empowering and increasing the willingness to participate in other experiences with other women. In the case of EOR, she supported GeR in technicalities as well as emotionally, in the case of FR she applied situated ethnography that include share hours in the field, working with shepherdesses and share spaces of socialization and collective meetings. This activist commitment with pastoralist community also extended out of the locality of

the studies and during the pandemic FR and EOR invited shepherdesses and women operators to be part of a feminist agroecological network to discuss problems, launch campaigns, participate in analysing solutions for post COVID measures and create a space of mutual support among women researchers and farmers. Recently, they also challenged the uncomfortable discussion among feminist antispeciesism and agroecological feminist. The conflict reflects a recurrent question of abandonment and undervaluation of the rural world by a urban culture in an asymmetric power relationship that normatively reproduces in public opinions the narrative that defines which experiences have value and who has the legitimate technical and scientific knowledge to take decisions. Specifically, urban, highly educated and academically supported anti-speciesism and vegan feminist movements are opposed to women pastoralists, some of whom also self-identify as feminists. A new campaign in defence of rural feminism is currently supported. We also experimented with limitations and tensions. First, we converge in considering the difficulties to maintain in the distance the caring process, especially when during the pandemic the lock down only permitted virtual calls that were transformed in the daily practice of researchers but were an extra time demanded to women farmers. This fleshed out a always latent tension observed in the experiences of the three researchers: among between care of the time and space together between having a space and time together with women participants, as a care space (e.g. during the interviews for self-empowerment and acknowledgement as knowledge holders; during the workshops as a collective space of enjoyment) versus consuming energy and time that may add workload to women shepherds. Additionally, in several occasions researchers reflected with women on the risks and impacts assumed by some women in order to participate in the spaces of the research. They left home to assist the workshops, being away from care duties and farm work for several days, with “unknown” people, that in a patriarchal society as the rural Spanish society were suspicious for partners and possible source of betrayal and accusations. Finally, extremely sensitive information in terms

of women’s emotional and physical wellbeing and security was handled during the interviews and workshops. In some cases, they shared hard experiences (e.g. of violence or disrespect from partners or other family members) in moments of intimacy, as it happened in the workshops of GeR. In several occasions the researchers decided to prioritize spending more time for listening and empathising more than only reach research objectives, despite the lack of tools and experience to handle such situations.

## Conclusions

Overall our own experiences have shown that processes of co-production may be reinforced by feminist principles in order to contribute to societal transformations. Along the process we have had an internal reflection among the three of us, balancing intuition, previous experiences in participatory(-action-) research in practice and with feminist theoretical frameworks. As a result of our reflection process, we recognise our privileges as researchers in the acknowledgement and credit of the knowledge we produce, getting social and academic attention and rewarding that the communities barely receive. We also recognize that to be transformative, the co-production processes should overcome the boundaries of projects in itself and engage with the wider political context. We finally observed that the ability to more deeply engage participants has been hindered by our geographic dispersion, constraints on the women’s time, as well as the time of the research team, and lately the COVID19 pandemic, which has impeded almost all physical encounters and only allowed the continuity of virtual interactions.

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