Spaces for Transdisciplinary Dialogues on the Relationship between Local Communities and Their Environment
The Case of a Rural Community in the Calchaquí Valley (Salta, Argentina)

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ABSTRACT: Our ethnographic research focuses on the perception and use of components of the natural environment in terms of routine activities carried out by the residents of a rural community in the Calchaqui Valley (Salta, Argentina). Life in this community is characterised by the presence of traditional subsistence activities – agriculture, cattle farming, textile manufacturing and ancestral medical practices – coexisting with business ventures focused on monoculture and export, tourism centred on landscape intervention and promotion of native products, and the growing key role of public policies in the areas of health and human development. In this context, a joint reflection on viability and sustainability of local and global practices and resources must be undertaken. Implementing intersectoral forums and focus-group discussions, governmental and non-governmental actors, researchers and local people must work conjointly to achieve a fresh patrimonial awareness of livelihood strategies based on their long interaction with a specific environment.

KEYWORDS: environment, ethnography, intersectoral forums, lifestyle, natural resources, peasantry, sustainability, transdisciplinarity

Introduction

Our research team in applied ethnography has a long history of intervention in rural and urban populations of Argentina to deal with problems that affect communities. In every case, we interacted with and supported professionals from different fields of knowledge in order to diagnose and try to solve problems that affect these populations, understanding these from a local perspective. We paid particular attention to the strategies that address problems emerging from the daily subsistence activities of domestic groups. The advantage of having a broad ethnographic record has allowed us to observe the deep transformations this region experienced over the last decades. These transformations are mainly connected to changes in the type of endeavours traditionally linked to the fincas and to the implementation of public policies on health, education, housing and tourism and the way allowances or resources were delivered to individuals.

Regarding public health policies, ‘primary health attention’ is one of the most extended strategies in rural areas of the country, including Molinos Department. This strategy especially focuses on health promotion and prevention of infectious diseases, growth and nutritional status control and pregnancy monitor-
ing. Infectious diseases are thought to play a major role in the population’s nutritional status and widely influence their quality of life. Interventions that prevent infectious diseases and undernourishment are based on health education and detection and control of risk factors, mainly individuals’ hygiene and food habits, house construction materials and sanitary conditions, such as access to drinking water and sewage disposal. We took into account the importance of parasite infection as an indicator of human and environmental health, and its implications for the diagnosis and prevention of environmental disturbances associated with it.2

Changes in Lifestyle in the Calchaquí Valleys

The Calchaquí Valleys are part of the southern region of the Andes in the northwest of Argentina. This region has been inhabited for over 2,500 years, initially by aboriginal people, called Diaguita or Calchaqui, who spoke the Kakan language. Some other groups, who spoke Quechua came here as a result of the Inca expansion and settled in the region in the fifteenth century. This resulted in a degree of cultural homogeneity and social practices that characterise the entire Andean region. The present population constitutes a mixture of indigenous and Hispanic elements.

According to the official census (2009) there are 2,494 people living in Molinos Department of whom 1,000 live in Molinos town proper. The town of Molinos is a rural setting located 2,020 metres above sea level and 200 kilometres from the city of Salta, founded in the middle of the seventeenth century. This town’s type of settlement and access to land has its origins in the Spanish encomienda3 and continues today in the fincas as a way of organising space, production and regional social articulation (Garreta and Solá 1993). The present economy is based on vast farm production, cattle breeding and domestic farming for self-consumption. Although some people still perform those activities, young people are mainly engaged in other tasks such as commerce, wage labour jobs – both inside and outside of Molinos, or even state-administrative jobs. They are involved in professional or technical practices at hospitals or in schools to a lesser extent. Today, tourism is an important source of income, which, in turn, increased textile activity and encouraged the transformation of old buildings into multiservice hotels. Wine growing reached its peak in the last few years and several fincas, whose wine production was traditionally handcrafted, were recently acquired by foreign and national industrial groups (Martínez and Crivos 2010).

Several new economic projects have been put forward with the support of regional and national organisations as well as of national and foreign non-governmental organisations, among them Comunidades Unidas de Molinos (CUM)4. This organisation comprised of people from communities nearby the town brings together the members of a group of families that cooperate in the implementation of projects that are directed towards the promotion and development of indigenous people. There are other institutions connected to the activities of the fincas that promote training and work-orientation workshops for their residents. Some of the most important projects are the Pro-Huerta and the Pequeña Agricultura Familiar programmes5 from the National Institute of Agricultural Technology, INTA (Cieza 2010), and the National Ministry of Social Development. As regards the NGOs, the Foundation ‘Nature for the Future’, financed by Mitsubishi Corporation and supported by the government of Salta, launched a project known as El Patrimonio tiene Oficio [Our heritage has a trade] to ‘promote [local] sustainable development and to protect the cultural and natural heritage of the Calchaquí Valleys’ in Salta. For the last twenty years, the association of craftsmen and producers, San Pedro Nolasco de los Molinos and Coquena, has been in charge of part of the production and sale of wool and textile handicraft (Teves 2011). Similarly, other projects aim at improving the infrastructures of health institutions and the supply of medicines.

As head of Molinos Department, the town of Molinos is home to the administrative offices of the provincial government. The current features of this town are completely different from those we observed during the 1970s when we first started our research (Crivos 2004). Since that time, access roads to the town and drinking water and electricity services were developed in the last four decades. In the 1990s, different modes of communication were added – television and the Internet are in use in the community. Solar panels supply electric energy to areas far from the centre of the town. The residents of Molinos consider these advances as improvements to their quality of life even though some fincas still do not have access to all of these services (Martinez and Crivos 2010).

The pastures of an old finca that twenty years ago were located at the margins of the small town of Molinos are now home to a group of homogeneous houses constructed with governmental funds. During this period, Molinos Township tripled its population, owing its growth to the socio-political transformations in the region in the last decade.
Educational and sanitary institutions have increased in number and in the quality of service. For example, twenty years ago, there was only one regular school; today, that same institution offers primary and secondary education, and there also is a kindergarten. In 2012, a new tertiary education institution was established. Since Molinos offers access to public secondary education, many young people from the surrounding communities move to town to access this resource. To house these students while they attend school, shelters were built with the help of ecclesiastical organisations. As a consequence, a higher number of young people are either staying in the area or delay their migration to cities (Martínez and Crivos 2010).

As regards health services, Molinos has one provincial hospital located inside the town and six sanitary posts in the *fincas*, located several kilometres apart from one another. Although an increasing number of people visit the hospital or one of the sanitary posts, some illnesses are still being treated in the domestic realm or with the advice of médicos campesinos or traditional healers because biomedicine is not considered capable of diagnosing and treating them (Remorini et al. 2012).

Molinos’ hospital only deals with births and more easily treatable pathologies. More complex pathologies are treated in health centres located in nearby cities. Each *fincas* sanitary post has a full-time nurse or sanitary agent and is visited by hospital physicians once each week. Access to these facilities is limited, sometimes due to long distances, the absence of adequate transportation, and to economic problems that make transportation even more difficult. This situation not only contributes to the persistence and relevance of local traditional medical practices, especially among the inhabitants of the *fincas*, but also accounts for the pragmatic and opportunistic use of official medical practice.

### Our Strategy

Our strategy grows out of our extensive historical trajectory, interdisciplinary methods and university extension resources to address parasitic infections and their impact on the quality of life and sanitary conditions of rural populations in the northeastern region of Argentina. Based on our experiences, we assert that it is necessary to generate and foster spaces that promote the interaction among all actors involved in decision-making processes, in an egalitarian political environment to create strategies collaboratively for handling the sanitary conditions of parasitic infections. The participation of a broad spectrum of actors – residents, members of governmental and non-governmental organisations, and scientific and technical investigators – must be involved in the discussions to produce alternatives for the reduction of parasitic infections.

Our methodology consists in the combination and alternative use of diverse interview (semi-structured, open-ended) and observation techniques, including participant observation by following the routines of the members from different generations within domestic units and their social interactions. Our surveys centre on the activities that involve the use of environmental resources as the actors engaged them in every instance of their execution, and their connections. We especially focus on the results that arise from the transformations of those activities and their consequences on the environment, and the population’s health and quality of life.

To support the spaces for participation and discussions, we hosted workshops and focus groups in Molinos and its nearby communities. These work groups, or ‘communities of practice’ were made up of different social actors directly or indirectly linked to the problems of human and environmental health. These were local inhabitants, teachers, sanitary agents, doctors, biochemists and scientific researchers from the university in the field of biology and anthropology, and governmental and non-governmental organisations.

Between 2012 and 2013, we held three meetings in the local hospital with Molinos Department’s health staff and several local government agents in attendance. Three other meetings were held in Molinos’ primary school and four other meetings in the secondary school; teachers and students from each institution attended all of them. A workshop was hosted in the Higher Education Programme and another one took place in the Interpretation Centre and Museum Indalecio Gómez, both of which were attended by teachers of the Programme.

In 2012, inhabitants, priests, police officers and town and hospital authorities attended a workshop that was held in the parish hall of Molinos church. Likewise, CUM organised another workshop in Tomuco that was focused on adult women, young people and children. In 2013, the schools of Colomé and El Churkal hosted workshops in which sanitary agents, teachers, parents and students participated. In Amaicha, one workshop was held in the sanitary post, and Tacuil also hosted another workshop in its Primary School.

In all these meetings the exchange of information and experiences from different perspectives was encouraged to identify common concerns and to generate strategies to solve them. People and groups in-
volved in acknowledging health problems and their resolution were able to interact. They got to know and express different perceptions and interpretations and present, analyse and negotiate their own expectations in relation to those of others in the region. Surveys were also conducted to generate exchanges and activate the recollection of information about the uses and knowledge related to natural environmental resources involved in daily routines and their health impact. In accordance with the needs of local institutions, several activities were carried out to meet the greatest concerns in the community. This entailed training health personnel and gathering information about the health and nutritional conditions of children.

About the Experience: Actors, Perspectives and Emerging Problems

In the first stage of this research project several meetings were held in the hospital and schools to build awareness of the socio-environmental factors of parasitic infection. In these institutional contexts, we were able to optimise the involvement and commitment of the different social actors. We were also able to confirm and increase the value of local knowledge and practices, articulating them with scientific knowledge and demonstrating a multiplying effect that had a wide impact in the region.

The programmes and projects in educational and health institutions that were implemented incorporated a wide range of strategies and perspectives and the participation of local actors. Simultaneously, university researchers and their project designs were modified to interact more fruitfully with the local population and within the framework of university extension projects. These projects now foster the active participation of local residents by promoting persistent questioning of the experts and their adequacy in addressing the problem at hand, its resolution and possible benefits.

The workshops provided the space and context for generating awareness of parasitic infection, providing information about its negative effects on human and environmental health. The notification about the meetings held and their goals was spread through the media, face-to-face contacts and written communication. Attendance of the activities in the town was not consistent. However, in El Churkal and Colomé fincas, many people from different sectors of the population attended the meetings held in primary schools. In the town’s hospital, the director decided to make the activity compulsory for all personnel. In the schools, the activities were carried out with students from different grades during class hours; however, the meetings for parents and teachers held after school hours were not as well attended as expected.

This kind and level of participation is not new for the residents of Molinos and its institutional authorities. The latter claim that there is little participation in training or informative activities by the town people, unless there is some type of benefit for the attendees and/or organisers. This clearly explains why many health-promotion and illness-prevention activities organised by the hospital are minimally attended. Hospital personnel stated that this situation is due to the ‘lack of interest’ on the residents’ part, although this remark usually points to women who are considered the sole individuals in charge of family health and wellbeing, and the absence of men’s participation in what are considered domestic activities. This is reinforced by public policies that target women with messages and benefits from social programmes. The level of participation and participation by gender is strengthened by health policies. According to government policies, the procurement of ‘benefits’ (higher coverage, free-of-charge medicine, milk and food for pregnant women and children) or cash allowances would require some form of ‘compensation’ by the poorest families. In the past, compensation meant voluntary work and compulsory health controls, while today only the latter is present. This relationship produces benefits, obligations and debts, which, if they are not settled, entail institutional penalties. A sanitary agent said the following about this:

We need to encourage mothers to devote more time and attention to their children or to feeding them, because mothers might have some other things to buy first. I think this Plan7 has to move in that direction and give mothers an incentive: to make them accomplish something or do something in exchange for something else. But I haven’t seen this in practice … I usually tell some people that, at least, they should buy the child a fruit.

This opinion represents a common perspective about deprived families dependent on state institutions. They are said not to ‘profit from the opportunities’, are ‘careless’ or ‘irresponsible’ or even ‘lack education’ or the necessary ‘values’ to assume their family health care obligations responsibly. In this regard, ‘values’ in particular are issues transmitted through religious institutions, such as catechesis, religious ceremonies, food kitchens and nurseries.

At school, similar perceptions exist about the children who come from those ‘deprived’ families. Both institutions support messages and initiatives from
governmental and international organisations (such as the Ministry of Health or UNICEF) that propose universal actions and conceptions related to health and human development. Not being critically evaluated or questioned regarding adequacy to local contexts, these universal notions become a fundamental part of projects and develop into the standards used to evaluate the results to be achieved.

From a governmental or non-governmental organization institutional point of view, people being served are seen as having deficits or are perceived as deprived, while the role of institutions are understood as facilitating people’s education, and improving or correcting their lifestyles. The imposition of disqualifying families and individuals justifies the intervention of institutional agents to promote changes in their habits, behaviours and inappropriate or ‘risky’ attitudes. This context prevents people’s values, interests, perspectives and strategies from being surfaced or entering into a discussion in a safe common place. Instead it produces confrontation, rejection or resistance, critical obstacles for institutional practices that are ignored. Within this framework, the local residents, the alleged beneficiaries, have little room for the spontaneous, genuine expression of their demands, interests, perspectives or problems. This is an obstacle in the active involvement of beneficiaries in institutional projects, making them appear inflexible, resistant and uncooperative, as indicated by the following:

In many families, the main cause is – as they [The Sanitary Agents] know since they have contact with them – primary malnutrition. That is, ‘I don’t have anything to give my child to eat’ so, these people use the parasites as an excuse … They come here with their own diagnoses … and they directly ask S. [The Biochemist] ‘aren’t you going to do some tests? Because he is not eating! I give him food every day, but nothing happens and he does not gain any weight, I’m sure the child has a parasite infection’. They ask for them [tests]. (Physician)

Something that is also cultural is children’s eating habits […] because of their parents’ habits, children eat […] food with lots of sugar, such as sodas […] meat […] or fried foods, like French fries … [...] all foods, which are not […] in a way, healthy for the child’s growth. (Sanitary Agent)

[…] we give those families education in their own houses. Sometimes we have undernourished children and we have to talk about supplementary nourishment, and there’s when the mom says ‘he is not hungry and he doesn’t eat’ so … I’ve already talked to her […] We try to explain everything to her, then we talk about the importance of breast-feeding […] nowadays, mothers are not really like they were in the past, it seems that now they have more alarm signals, for example, if they notice the kid has diarrhoea, they bring the child here [to the hospital]. (Sanitary Agent)

People ‘get’ things (messages, goods and services), and according to those who offer those things, people should give something back or do something in order to ‘show’ they are giving those things their deserved value. These types of relationships are compatible with a vertical social and domestic organisation, in which elders assume responsibilities and are models, sometimes the only ones, who make decisions (the mayor, or the ‘patron in the finca’). The historical roots of this model of organisation are expressed in social, economic and political institutions and in several activities, which clearly represent the lifestyles of people in the region. The vertical, hierarchical relationships that characterise local models of social organisation do not allow for an adequate balance in this give-and-take situation.

In view of this situation, instead of considering the reasons for this imbalance – which would entail listening and paying attention to other voices and assuming one’s own critically – new ways of interacting with the local population are generated so as to attract their attention and to guarantee the success of institutional projects. In accordance with national educational policies, the importance of local traditions and public actions oriented towards human and environmental health is favoured in the schools through the implementation of workshops dealing with topics such as history and pre-history of the region, and environment and pollution, among others, as indicated by the following comment:

For example, […] water cycles were taught in the first grade […] the problems of the sun and how it affects our skin were dealt with in the second grade […] while in the third grade, trees and their benefits were taught […] in the fourth grade, students learnt where the town was before and what had happened, why had the town been changed […] in the fifth grade, students learnt how to purify water with natural methods […]. (Primary School Headmaster)

Generally, the purpose of these workshops is to sensitise and involve the school population in topics that are considered of critical importance and that are supposedly unknown to them. Surveys with primary and secondary school students about their knowledge of the region’s natural resources indicated that they recognised domestic activities, such as nutrition and treatment. However, when asked to reflect upon environmental problems and possible solutions, students had limited knowledge about pollution, garbage han-
dlying, risks associated with consumption, illnesses connected to environmental factors, and natural catastrophes. Although these aspects of the human–environment relationship are considered problematic by the school, as evidenced by workshops provided on these topics, environmental concerns are clearly not recognised by the students as being relevant to their daily lives.

The hospital has recently started to offer, as a therapeutic practice, dance and gym sessions to encourage the expression and interaction of people in that new space. The idea to carry out this type of activity was triggered by the concern for the social factors that encouraged certain chronic pathologies, namely hypertension, diabetes, being overweight and other issues derived from problems such as alcoholism, which have an impact on the mental health of the residents – abuse, family violence, rape and suicides – and that are recognised by physical indicators among those seeking care at the hospital. At first, when the health professional is confronted with health problems that involve psychosocial components in their origin and treatment, he calls on a psychologist to assist him. If this alternative fails as well, the professional tries to understand the ‘lack of response’ to the proposal:

We called the psychologist and we were at his disposal, because […] as human beings and as an institution, we thought it was important to offer that support […] I thought we were exaggerating […] because, I don’t know […] it seemed that nobody else cared […]. (Hospital physician)

Final Reflections

Molinos is a clear example of how the introduction of varied governmentally enforced projects can generate social and cultural incentives for rural populations to undergo major lifestyle changes, chiefly through new productive activities and public policies that try to nurture them. Although these new activities indeed produce transformations in the social and natural environments, there is very little space left for local residents’ reflections about their consequences and future projections and, thus, for the proposal of strategies for the support of community life. Instead, community life, itself, is questioned when the goal is to find a path to institutional or personal satisfaction that uses and optimises available resources.

The town and its surrounding area form a friendly experimental field for these different types of activities. Within this context, we observed that local institutions are centred on their own practices, which sometimes are not enough to meet the demands they themselves create. The aim of raising ‘communities of practice’ – defined as a group of people connected by participating or being involved in a common activity or practice, recurrent and sustained over time (Vásquez Bronfman 2011) – becomes blurred by institutional activities that guarantee no other commitment from their beneficiaries than the one that arises from the mandatory nature of the school and the specific needs of the hospital.

In light of this situation, residents of Molinos observe, are interested in, or reject these proposals according to their own interests or priorities, thus making a pragmatic selection – either voluntarily or not depending on the institutional context – of offers or components. People are constantly deciding upon and combining alternatives, in a synergistic manner, in terms of how these proposals actually affect their daily lives. Our ethnographic research on subsistence activities at the domestic level allowed us to better understand these decisions and residents’ reasons by exploring their individual paths. At the same time, our research allowed us to evaluate convergences and divergences regarding the impact of different ventures on local development, considering those individuals’ paths and experiences.

We were also able to observe how institutional-centring is closely connected to individual-centring. Considering the institutional offer, that of schools and hospitals, proposals focus on those individuals who are considered deprived of health, education and certain prescribed values as these institutional define them. In general, individuals visualise their problems and eventual solutions without considering, to the fullest extent, the social context in which their problems emerge. Articulating the interests of different sectors of community life, this eluded dimension that poses problems and solutions within the social network that creates them and solves them is activated during the scheduled meetings.

In this regard, the spaces created by these meetings promoted a certain interaction among individual and institutional interests that went beyond their dividing limits. The presence of those spaces allowed us to redefine problems that were, at first, considered personal and unique and then to project them on a community scale. The consideration and analysis of problems, as well as the search for alternative solutions, produced interesting comparisons and correlations among the professional and scientific viewpoints and those arising from people’s experiences derived from their longstanding settlement in the region. In spite of the divergences in the knowledge
and experiences of different actors involved, knowledge about human and environmental health was enriched and expanded. An emerging community of practice, in which community and social knowledge constitute each other, was generated through the exchanges taking place in the meetings. Beyond the success or failure of these events in terms of quality and variety of participating individuals and groups, we acknowledge the possibility of making these forms of knowledge operational through a community of practice. In this way, knowledge acquisition is accelerated through incorporating the new forms of knowledge in both institutional and individual daily practices.

As we have shown, most of the initiatives currently accepted by government institutions (health and education mainly) are grounded in ideas and objectives defined outside of the local context. They are associated with established goals of public policies enacted nationally, even when professionals make an effort in to adapt them to the local situation. However, the opportunities to introduce changes or innovations according to people’s daily experiences and the forms of social learning through interactions between health staff and local population are limited. In that sense, there is a little room for horizontal exchange and mutual learning as is typical of other situations in the domestic sphere. On the contrary, vertical relationships and ways of authority prevail in these institutional contexts.

New challenges derived from transformations in the economic activities, educational goals, health and nutritional transitions, are seen as problems that could be treated as isolated from each other, and included in the programmatic schedule of each institution. Common goals, articulation mechanisms and mutual collaboration sustained over time are not as frequent as a community of practice would require. However, drawing on the results obtained until now, we are able to recognise some features that partially fit with the idea of an ‘emerging community of practice’. As Vazquez Bronfman (2011) pointed out, to shape a community of practice, the keyword is to cultivate, rather than to create, as the term ‘cultivate’ implies to help and support the development of something already existing (even in embryonic form) rather than to deliberately create a community of practice. Based on this idea, it is necessary to start by recognising existing communities in specific contexts. Moreover, to do this, we must first identify the activities or issues that bring together people. Considering this, one of the recurring problems of projects that seek participatory ways of knowledge management is the great difficulty of sharing this knowledge, in order to redefine problems, re-think them, and to then assess alternative solutions, taking into consideration the multiple viewpoints and interests within a local community. However, it is within this process that people who participate in the community of practice learn from each other and are able to collaborate. In this sense, our work offers an experience of knowledge management about parasitic infections, one that exhibits the challenges and opportunities underlying the proposal of intersectoral encounters as a strategy for sharing knowledge and practices of very different origins. This is an essential condition for the emergence of communities of practice to address issues of human and environmental health affecting the residents of the Calchaqui Valley.

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Notes

1. Finca is the name used in Salta to refer to rural agricultural property (Dávalos 1937: 36).
3. Encomienda is the Spanish word for ‘commission’. It refers to the feudal system used by Spain in the New World. In this system, the Native Americans would work on the land and pay tribute to the Spanish conquerors in return for spiritual and terrestrial care.
5. These national programmes aim at improving food safety and sovereignty and at favouring the participation and organisation of vulnerable sectors of society.
7. Asignación Universal por Hijo [Universal Child Allowance].

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