

Agricultural Change and Social Relations:

Examining the Social Impacts of Genetically Modified Soya in Northern Argentina

Elisa García Jaramillo



Master thesis in Culture, Environment and
Sustainability

Centre for Development and Environment

UNIVERSITY OF OSLO

1st November, 2016

© Elisa García Jaramillo

2016

Agricultural Change and Social Relations

<http://www.duo.uio.no/>

Print: Reprosentralen, University of Oslo

Abstract

This thesis is based on a longitudinal study and it examines the social impacts of the introduction of genetically modified (GM) soya in Santa Cecilia, an agricultural colony located in northern Argentina. Two additional objectives are to explore the implications of the agricultural changes that followed in inter-ethnic relations between the two ethnic groups found in the community, and to identify changes and continuities in the state of gender relations among one of said ethnic groups, given the changes that have occurred, and in comparison to their parents' generation. The study implements an actor-oriented approach by focusing on the experiences and perspectives of local actors. However, once patterns are identified, these are contrasted with a larger level. I draw on existing research on the effects of biotechnology in the country to support this study. Furthermore, the influence of relevant social institutions, namely family, education and the economic context are also important to answer the research questions.

This research is guided by a qualitative and constructivist paradigm. Fieldwork was conducted in July 2015 and it relied on ethnographic elements, however primary data was collected through semi-structured interviews. In terms of agriculture, the findings illustrate how local farmers relate to the new technology, the strategies used to assimilate the changes, and the role of collective actors (the farmers cooperative and the municipality) in the process. Regarding the social context, it was found that the socioeconomic implications and the aspects associated with the GM crops led to changes in the state of inter-ethnic and gender relations. However, there is still predominance in the state of power relations determined by class and gender, both of which are reproduced through cultural hegemony.

Keywords:

Genetically modified soya, agricultural change, inter-ethnic relations, gender relations

Acknowledgements

I will start by thanking the Centre for Development and Environment (SUM) and its dedicated, friendly and professional staff, particularly Anne-Line Sandåker and Gudrun Cecilie Eikemo Helland in their role as student advisors. Thanks to my fellow classmates for the thought-provoking conversations and the laughter we shared in the past two years. The staff, the professors, and my classmates made this program both academically and personally fulfilling, and I am very grateful for having had the opportunity to take part in this master's degree.

Furthermore, I could not have carried out this project without the collaboration of many different people. I would like to give special thanks to my advisor Kristi Anne Stølen for her continuous support throughout the process. Her thorough guidance and valuable feedback allowed me to carry out and complete this thesis. My gratitude is extended to my informants, especially Imelda and Susana for welcoming me in their homes, for making me feel like a part of their family, and for all their help before, during and after fieldwork. Similarly, I would like to thank all my other informants for taking their time to talk to me, for sharing their perspectives, and for answering my questions. They not only facilitated and enriched the research process, but they also made my time in Argentina a wonderful experience. Their stories and comments are presented in this thesis, but their names have been changed.

Finally, thank you to my parents for raising me the way they did, and for their unconditional love, encouragement and support. And to Terje, thank you for the joy you bring me every day, and for inspiring me to be a better person.

Table of contents

1	Introduction	1
1.1	Rationale	1
1.2	A longitudinal study	2
1.3	Research questions and thesis structure	5
2	Theory and concepts	6
2.1	Theoretical foundation	6
2.2	Actor-oriented approach	7
2.3	Identity, gender, and power	12
3	Literature review	15
3.1	Findings of the previous study	15
3.2	Agriculture and biotechnology	21
3.2.1	Social impacts	27
3.2.2	Environmental impacts	29
3.2.3	Perception of biotechnology in Argentina	31
3.3	A generational shift	31
3.3.1	Religion	32
3.3.2	Family	33
3.3.3	Education	34
3.3.4	Economic context	35
3.4	Gender roles and relations	37
3.4.1	Sexual division of labor	38
3.4.2	Sexuality and procreation	39
3.4.3	Power and authority	40
4	Methodology	41
4.1	Fieldwork: Santa Cecilia and Avellaneda	41
4.1.1	Data collection	44
4.1.2	The informants	45
4.1.3	Positionality and limitations	47
4.2	Data analysis	48
4.3	Ethical clearance	49
5	GM soya in Santa Cecilia: impacts and responses	50

5.1	Rural exodus and loss of community life.....	50
5.2	Agricultural change	53
5.2.1	Farmers who did not transition to agribusiness	54
5.2.2	Farmers who transitioned to agribusiness.....	56
5.2.3	The cooperative Unión Agrícola de Avellaneda, UAA.....	59
5.2.4	Recapitulation on the passage to agribusiness.....	61
5.3	Diversification of products and techniques.....	62
5.4	GM soya: practical information	63
5.5	The national context: economy and regulations.....	66
5.6	Unemployment and national subsidy programs.....	69
5.7	Municipal strategies	72
5.8	Expansion of GM soya and bio-hegemony.....	76
6	Inter-ethnic and gender relations	79
6.1	Inter-ethnic relations	79
6.1.1	Gringos and criollos.....	80
6.1.2	Labor.....	81
6.1.3	Education	83
6.1.4	Household and family.....	86
6.2	Gender-relations: the next generation	87
6.2.1	Sexual division of labor	90
6.2.2	Sexuality and procreation	96
6.2.3	Power and authority	98
7	Discussion.....	102
8	Conclusion	111
	References.....	115
	Appendix 1.....	124
	Appendix 2.....	126

List of figures

Figure 1. Soya in hectare and production in tons. Source: Leguizamon 2013.....	25
Figure 2. Area planted with soya in Argentina. Source: adapted from SAGPyA 2015..	26
Figure 3. Santa Fe Province in Argentina. Source: Provincia de Santa Fe.	42
Figure 4. General Obligado Department in Santa Fe. Source: Municipalidad de Avellaneda.....	42
Figure 5. Avellaneda Municipality in General Obligado. Source: Municipalidad de Avellaneda.....	42
Figure 6. Abandoned shop in Santa Cecilia. Source: Elisa Garcia.	50
Figure 7. The houses, orchard and products. Source: Municipalidad de Avellaneda 2015.....	73

List of Tables

Table 1. Number of farms by size 1988-2002. Source: Gras 2009, 36.	27
Table 2. Gender Culture in Argentina. Source: Ibarómetro 2015.	37
Table 3. Rate of female employment by sector. Source: Ministerio de Trabajo, empleo y Seguridad Social 2014.	38
Table 4. Next generation informants.	46

1 Introduction

This section presents the purpose of the project, the motivation to write, its context, relevance and the thesis structure.

1.1 Rationale

This thesis is based on a longitudinal study that examines agrarian change and the social context in *Santa Cecilia*¹, an agricultural community located in Santa Fe, northern Argentina. Like other places that share similar characteristics in the country, Santa Cecilia is a '*colonia*' or colony. This is because the area was assigned to a group of European settlers in the 1800s. The main objective of this research is to explore the impacts of the introduction of genetically modified (GM) soybean in the colony. An additional objective is to examine their implication in inter-ethnic relations between the two ethnic groups found in the community. Finally, a third objective is to identify changes and continuities in the state of gender relations among one of the ethnic groups (the descendants of the European immigrants), given the agricultural changes that have occurred, and in comparison to their parents' generation.

The motivation for this project stems from a combination of factors: my personal background, academic interests, and the opportunity to contribute to a longitudinal study. As a woman growing up in Colombia, I have been aware of my country's cultural notions of gender; of who men and women are supposed to be, how they are supposed to act, and what kind of responsibilities are assigned to them. This awareness increased after living in Norway for some time, as I saw differences and drew comparisons on the perceptions of gender in both cultures, and the impact this has on people's lives. The interest in agriculture also relates to my background and experiences. I come from Caldas, a department located in the Midwest of Colombia, and one of the main coffee producing areas in the country. It is a place where the influence of coffee production is evidenced in nearly everyday life; from following international prices on the news, to hoping for rain during dry seasons. Moreover, while studying at the Center of Environment and Sustainability, I learned about the importance of agriculture from a deeper perspective, by looking into the impacts of policies, programs and technologies

¹ The name of the place has been changed.

on social and environmental issues; both at a local and global scale. Fitzgerald (2003, 3-5), as part of her analysis of the mechanization of agriculture, lists the numerous ramifications that replacing a horse with a tractor had for farmers, for their neighbors and for their community. Biotechnology not only involves new technological equipment and agricultural techniques, it manipulates the seeds at a molecular level. This has raised a global debate on the safety of their consumption, their effects on the environment, as well as the repercussions for the agricultural sector and for the farmers. Argentina was one of the first countries to adopt GM crops in the 1990s, and is one of the very few countries where the crops were introduced without engaging in significant public debate, or generating controversy. The main GM crop produced is soya. There is extensive research on the social and environmental effects of this crop in the country (Lende 2015; Leguizamon 2013; Gras 2012; Teubal 2009). However, there is not so much available in connection to social change and social relations, and less so as a longitudinal study, following how both transitions, the mechanization of agriculture and the introduction of GM crops, have affected the same place and the same people.

Given the above, when the opportunity arose to do fieldwork and write a thesis on agriculture and social change, in a Latin American country, and by doing so, to contribute to a longitudinal study, I was happy to take it. I find it interesting and valuable to do this work based on a previous research, by examining continuities and changes in inter-ethnic and gender relations, considering the transitions that the area has gone through after the introduction of GM soya.

1.2 A longitudinal study

The original research projects were conducted in the early 1970s and late 1980s and took place in Santa Cecilia, an agricultural colony founded in 1895 by *Friulian*² immigrants. By the 1970s Santa Cecilia was inhabited by two different ethnic groups. The first group is the descendants of the Friuli immigrants. They are referred to as ‘gringos’ or ‘colonos.’ It is important to clarify that in this region of the country the term ‘gringo’ is used for Argentinians who are descendants of European settlers, have Italian/Slavic/German surnames, and grew up in agricultural colonies. The term

² The Friuli region is located in the northeast of Italy.

‘gringo’ emphasizes the ethnicity and origin of the individual. The term ‘colono’ emphasizes their occupation as those who own and work the land, namely the farmers. All colonos are gringos, but not all gringos are colonos, as there are those who have other occupations. The second group is the *criollos*. Criollos have primarily indigenous ancestry and, prior to the introduction of GM crops, worked as harvesters for the colonos.

Having clarified the context of the colony, I can now refer to the longitudinal studies on which this thesis is based. The first research (Archetti and Stølen 1975), examines the labor processes and mechanisms involved in family farming and accumulation of capital, both in the external sphere as in commercialization within the community, and in the internal sphere, in terms of domestic work and family relations. The study analyzes how both dimensions interplay under a capitalist economic model. It concludes, among other findings, that the difference between the colonos of the region, and conventional capitalist farmers found elsewhere, is that the latter do not include domestic activities in the productive process, whereas colonos bring together labor and family life in the farm (Archetti and Stølen 1975, 147).

The second research was carried out in 1988, this time only by Stølen. In addition to examining the agricultural and socioeconomic changes driven by the mechanization of agriculture and the introduction of industrial crops, it explored the state of social and gender relations between gringos and criollos. The study concluded with three main findings: the first is in terms of the farmers’ ability to face political and economic challenges, and their strategies used to adapt to the agrarian changes. The second is a state of social tension originated by the cultural differences between both groups, and its implications for life in the community. Finally, the third finding is in respect to gender relations among the gringo group, in which Stølen observed that a condition of female subordination was rooted in values and inherited in everyday practices. Consequently, it was accepted as natural and perpetuated through cultural hegemony (Stølen 1996a).

Having referenced the previous studies, it is important to mention that conducting a longitudinal research has both advantages and disadvantages. A potential disadvantage is in terms of the reliability of the data used. Understandably, this thesis relies, to some extent, on secondary data. The agricultural context of Santa Cecilia and the state of inter-ethnic and gender relations in the 1980s is taken from the analysis conducted by

Stølen (1996a). Her findings, as well as that of any other research, could potentially be challenged. However, the purpose of this thesis is not to question Stølen's findings; that is neither viable nor relevant. The objectives and the contribution of this current project are to examine processes of social change within a particular community after the introduction of GM crops. With this in mind, the analysis conducted prior to the adaption of GM soybean is required, relevant and valuable. As Miller and Brewer (2003, 183) indicate, the use of longitudinal data enhances the understanding and the insight on the issues when understanding social change.

The present study was conducted in 2015 and it has two field locations. It starts in Santa Cecilia where some of Stølen's original informants continue to live, but it also takes place in the town of Avellaneda, the urban area where many of Stølen's informants and almost all of the next-generation members (those who were children in 1988) have moved. This leads us to one of the purposes of the study: to examine the socioeconomic changes originated by the introduction of GM soya in the colony. I do so by looking into the implications associated with the continuation of economic activity, combined with the social abandonment of the rural area. These issues are examined under an actor-oriented approach (Long 2001), which explains that actors implement different strategies to adapt to structural changes, particularly those that occur rapidly, through external interventions or the introduction of new technologies. Two additional objectives are to examine the social context between gringos and criollos, and the state of gender relations between the gringos of the next generation. I examine the extent to which these issues have been influenced by agrarian change, and its effects on residence patterns and labor, as well as by other elements, such as the increased availability of education, a process of secularization, and the role of politics. In other words, since the participants no longer live in an agricultural community of the 1980s, it is important to consider the general context of the changing world they are a part of.

In essence, the purpose of this thesis is to conduct a similar study as the one carried out by Stølen in 1988. That is why the study looks into the introduction of GM crops as well as into inter-ethnic and gender relations. Understandably, there are difficulties associated with the varied topics, the changing contexts, and the fact that it requires two field locations. However, I believe that the benefits of conducting a longitudinal study, represented in the possibility to identify patterns, learn about cause-effect relationships,

and examine social changes and continuities within the same context and sample of people, make it worth it to pursue. These challenges can be compensated for, to some degree, by consulting existent research and, more importantly, by counting with the guidance and collaboration of Kristi Anne Stølen as my supervisor. (Stølen holds a doctorate in social anthropology and has conducted extensive research, particularly on the subjects of agriculture, gender and social change in developing countries). Finally, having access to her network of informants facilitated and enriched the process.

1.3 Research questions and thesis structure

Having provided some context, this research explores the following question:

- What are the socioeconomic impacts of the introduction of GM soya in Santa Cecilia?

In addition, three sub-questions were formulated:

- How have farmers perceived and responded to the GM crop?
- What are its effects in inter-ethnic relations?
- What are the main changes and continuities in the state of gender relations in the next-generation of gringos (Argentinians of Friulan origin) in relation to their parents' generation?

The next chapter, chapter 2, provides the theoretical approach implemented. Chapter 3 corresponds to the literature review and it is divided in four sections. The first section describes the agricultural and social context observed in 1988. This is done by summarizing Stølen's main findings. The second section presents information on GM crops in Argentina, and some of their implications. The third section revises literature on the social context by including information on social institutions (religion, family, education and the economy), and the fourth section focuses on gender roles and relations in the country. Chapter 4 shows the methodological paradigm and methods used. Chapter 5 and 6 provide the findings of the study. Chapter 5 presents the socioeconomic impacts of GM soya, and chapter 6 describes the social context in terms of inter-ethnic and gender relations. In chapter 7 the findings are examined and contrasted with the social theory. Finally, the conclusion is found in chapter 8.

2 Theory and concepts

The use of social theory informs the understanding of the context of this study and the matters around it: the socioeconomic impacts of GM soya, its effects on inter-ethnic relations, and the state of gender relations among the gringos of the next-generation. These issues are examined based on an actor-oriented approach (Long 2001), as well as by including relevant notions on identity, power and gender.

2.1 Theoretical foundation

The actor-oriented approach is framed within a larger theoretical study of structure and agency; of what these elements are, how they function, their role in shaping human action and social interaction, and how they constitute and reproduce the social world. Therefore, it is pertinent to brief them before analyzing the approach itself.

Structures are systems of patterned rules that enable and constrain practice and social interaction (Giddens 1984, 34-36). Structures are embedded in all forms of social organizations. The way I analyze the working mechanisms of social structures is through Bourdieu's notion of *habitus*. Habitus is the internal representation of external social structures (Bourdieu 1977; 1990). The degrees to which habitus –and thus structures– functions vary depending on the particular social environment (Bourdieu 1977, 73), and on the individual's own position, background, characteristics and experiences in that specific environment. That is to say, habitus is “associated with a particular class of conditions of existence” (Bourdieu 1990, 53). On a larger scale, these conditions include: gender, ethnicity, class, family, upbringing and education. At an individual level, they involve personal experiences, reasoning, knowledge, emotions and motivations. Finally, habitus and social structures have inherited mechanisms to reproduce themselves; they bring the past into the present and in doing so, create the future of structure and practice (Bourdieu 1977, 56). That said, however, Giddens (1984, 171), believes that practice and the exercise of agency transform social structures, both consciously and unconsciously.

Agency is the ability individuals have to act within, and despite the structures in place. Given that human action involves choice and knowledge, practice can be turned against

constraints it (Connell 1987, 95). Individuals have the capability to go against a pre-existing state of affairs, choose differently, act otherwise, and in doing so, to influence others. However, agency does not necessarily result in accordance with the individuals' intentions, as unintended consequences are tied to their conditions, to the context, and to practice. The same goes when it comes to practice derived from large social systems, like economic or political interventions, and which is intended to promote equity, development or social change. As Ortner explains, "Social change does not for the most part come about as an intended consequence of action. Change is largely a by-product, an unintended consequence of action, however rational action may have been" (Ortner 1994, 87). Raising the issue of change and having briefed the key elements above, we can move on to the actor-oriented approach, and on how it informs this research.

2.2 Actor-oriented approach

The actor-oriented approach is characterized by taking individuals and their social relations as the unit of analysis. It does so by acknowledging their heterogeneity; their differences in backgrounds, resources, ideas, interests and motivations, and by focusing on their opinions, perspectives and actions within particular contexts and situations. The purpose of this is to find patterns among the multiple outcomes and possibilities, to understand why and how individuals see the world (that is to say, a particular situation of their world), and the reasons why they act and respond the way they do. Furthermore, these patterns are to be located within the larger social structures in place, in order to see how they shape the actions of individuals, how individuals work around these structures, and how the structures are produced and reproduced through practice.

The approach sees individuals as social actors who, regardless of their conditions or resources, cognitively deal with life situations in order to accommodate their interests, and the interests of others in them. In doing so, actors contribute to the construction of structural, or cultural patterns (Stølen 1996a, 18). Moreover, the approach explains that actors use strategies to adapt to changes, such as those generated rapidly and unexpectedly by the introduction of technologies, institutions, programs and policies (Long 2001). This is an appropriate approach for this study, given that the research explores socioeconomic change in an agricultural community after the introduction of GM crops.

The main purpose of this project is to examine the implications that having access to a new technology, or biotechnology, has had in the colony, and how the main local actors involved, the farmers and their families, have responded to it. This is based on the premise that interventions and the emergence of structural opportunities challenge the predisposed state of affairs in the social context where they are applied, and that social actors have an inherited capability to address them in their best interests. As Long (2001, 13) explains:

“All forms of external intervention necessarily enter the existing lifeworlds³ of the individuals and social groups affected, and in this way they are mediated and transformed by these same actors and structures.”

The Argentinian government adopted biotechnology as a development plan arguing in favor of the potential of technified agricultural production to improve the economy and relieve poverty. Development strategies, however, do not follow the linear plan that they are intended to take. They often lack insight on the social and cultural characteristics of the local context, and they disregard the varied ways in which the local actors involved assimilate them, as well as how they are affected by them (Long 2001, 11). Moreover, the introduction of new technologies are often wrongfully regarded as ‘neutral,’ whereas in reality they have direct effects on the communities and on their vulnerable and marginalized groups, such as those determined by gender, class and ethnicity (Standal and Winther 2016, 28-41). With this in mind, developmental strategies can fail to anticipate and to address the multiple outcomes and potential complications that may follow.

The introduction of GM soya in Argentina took place through the confluence of varied global and national factors, and has had multiple environmental and social implications. The factors and the implications are discussed in the literature review section. Suffice to say for now that the actor-oriented approach is used in order to examine the implications in a particular community, focusing on local actors. As Long (2001, 13) indicates, an essential tool to anticipate, address and mitigate the social impacts of developmental interventions, or the introduction of new technologies, is by examining

³ Lifeworld is the sum of the physical and ideological surroundings that make up an individual’s world. It is the ‘lived-in’ and ‘taken-for-granted’ reality of social actors (Merriam-Webster 2015; Long 2001, 54).

both the external and local context, giving especial emphasis on the local actors' perspectives, strategies and responses.

“A more dynamic approach to the understanding of social change is therefore needed which stresses the interplay and mutual determination of ‘internal’ and ‘external’ factors and relationships, and which recognizes the central role played by human action and consciousness” (Long 2001, 13).

The introduction of GM crops in Santa Cecilia was not imposed on farmers; however, it was seen as too good to pass, due to the factors that will be examined in the next chapter. Moreover, the accessibility of biotechnology has changed agricultural production from nuclear family farming to a form of agribusiness which requires high investments and large-scale production. The transition to agribusiness has, among other things, generated changes in labor and residence patterns; impacts which extend to large areas of social organization. This thesis examines the implications of biotechnology on its socioeconomic effects for farmers, as well as in inter-ethnic and gender relations. Two important impacts are rural exodus, and criollos losing their jobs in the farms. These represent disruptions on the previous established order, or social discontinuities.

Long (2001, 242) explains that social discontinuities can lead to conflicts of interests and misunderstandings among social actors. However, when these discontinuities take place, the actors involved find strategies to address them. They do so through the combination and functioning of three elements: agency, knowledge and power (Long 2001, 16-24). As mentioned, agency is seen as the capability to act differently and to make an impact. Knowledge is derived from the cognitive processes in which people categorize, code, and impute meaning on their experiences, this is done individually and collectively (Long 2001, 189). Finally, power represents the resources (money, influence, contacts and knowledge) that actors have access to, both prior to the changes and acquired throughout. Actors draw upon these three elements to assimilate the context and respond to the impacts (Long 2001, 200-201). It is worth to mention that actors are both individuals as well as collectives. Collective actors share the same interests and have similar levels of agency, knowledge and resources (Long 2001, 56). Examples of collective actors include governmental institutions, corporations, cooperatives, unions and partnerships.

As mentioned above, an important aspect of the actor-oriented approach is considering the heterogeneity of individuals.

“Everyday life is experienced as an orderly reality, shared with others (...). This ‘order’ appears both in the ways in which individuals manage their social relationships and in how they problematize their situations” (Long 2001, 189).

In the Case of Santa Cecilia, the introduction of biotechnology has had impacts on gringos, on the criollos, and on the relationships established between both groups. Gringos being the farmers of the community who had the opportunity to implement GM crops, and the criollos, who lost their jobs as there is now little need of unqualified labor. These are two social groups with particularly different lifeworlds. However, there are differences within the actors of both groups. As we will see further on, an important one in terms of biotechnology refers to possession and access of varied forms of resources. Furthermore, an additional key aspect found within actors of the same social group is gender. Changes in labor and residence patterns involve important domains of gender relations, these can also represent social discontinuities and new opportunities which can lead to changes in practice within those domains. These can also be examined under the actor-oriented approach.

Applying the actor-oriented approach

Examining the actor requires understanding the context in which the actor is involved. Therefore, prior to fieldwork I consulted research regarding the social impacts of biotechnology in Argentina, and I learned about the context, the informants and the changes from Stølen’s perspective. This is explained in the methodology section, however I include it in this chapter to explain how the approach was applied. Once in the fieldwork location, I explored the informants’ version of ‘reality’ and their ‘truth’ (Long 2001, 51). Furthermore, once patterns in terms of actions and ideas are identified, they are located within the larger notion of structure, and analyzed through the social theorists mentioned above.

“To deal with the wide open world we inhabit, we must be more aware of the variations, the individuality, the inventiveness, the imitativeness, the motivations and the perceptions of individuals (...) If we look we can see

tendencies, processes, probabilities and patterns within a world of variations and chance” (Lewis 1993, 54).

With this in mind, in accordance with the actor-oriented approach, the social context and the questions of this thesis are explored from the micro-level, by focusing on the informants’ practices and perspectives. Moreover, once enough data is collected so that patterns can be established between them, the issues are explored and framed within the macro-level of analysis. This is because, although an initial focus is given on the actors, the questions explored are aimed at understanding their role within a larger context. As Stølen (1996a, 23) states:

“The actor-oriented approach does not mean that it is the individual per se who is the focus of analysis, but the individual acting in social situations, where the conduct of one influences the conduct of others and vice-versa.”

Moreover, the strategies implemented by collective actors in response to the socioeconomic changes are also important, given their effect on the context and on individuals (Long 2001, 26). The collective actors considered in this case are the municipal government and the farmers’ cooperative. Furthermore, and for the same reasons, it is necessary to examine the role of powerful actors, in the introduction, expansion and implications of biotechnology. The powerful actors can be defined and examined through the notion of *elites*. Elites are:

“Groups of individuals that due to their economic resources, expertise/knowledge, social networks, or positions in political or other organizations stand in a privileged position to influence in a formal or informal way decisions and practices with key social and environmental implications” (Bull, cited in Bull and Aguilar-Støen 2016, 138).

Based on the above, elites are those that given their varied resources hold a position of power in relation to other actors. The actions taken by powerful actors have a direct effect on the opportunities and on the ‘room of maneuver’ of local actors, as well as on the outcomes resulting from the introduction of biotechnology. In this case, the elites can be classified in three categories: the national government, multinational agrochemical companies, and agribusiness corporations. In the last category different actors are included, but it mostly refers to large land-owners (2500 hectares or more) and groups of agricultural investors. Furthermore, powerful actors often establish partnerships, and they have better access to politicians, thus potentially influencing

political decisions in their favor (Bull and Aguilar-Støen 2016; Newell 2009), as opposed to local small or medium scale farmers whose interests lack such influence and representation. Finally, in order to complement this approach, relevant notions on identity, gender and power are provided below.

2.3 Identity, gender, and power

The notion of identity is included because of its determinant role in the shaping of gender relations. Identity relates to how people perceive and classify themselves, who they are in relation to others and the implications of this in the way they relate to each other and the outside world. The concept encompasses a set of qualities, behaviors, beliefs, values, traditions and cultural traits involved in a reflection on the self (self-identity), as well as in the perception of others. The key aspect of identity is that it is established within larger contexts, where characteristics and contrasts are drawn among individuals and social groups. As Giddens (1991, 54) puts it:

“A person’s identity is not to be found in behavior, nor – important though this is– in the reactions of others, but in the capacity to keep a particular narrative going. The individual’s biography, if she [sic] is to maintain regular interaction with others in the day-to-day world, cannot be wholly fictive. It must continually integrate events which occur in the external world, and sort them into the on-going ‘story’ about the self” (Giddens 1991, 54).

Our lives are connected to the lives of others. Meaningful interaction and the expression of the self are framed by structures that shape individuals’ identities: people act accordingly to the social rules in place. These rules both enable and constrain practice depending on the person, on the group they belong, and on the social systems in place.

There are many factors that contribute to the constitution of identity; most of them are structured in the form of social systems. Three important systems are ethnicity, class and gender. The last one is arguably the most determinant, given that societies assigned gender identities to their members through social constructions. Gender refers to “the cultural interpretations of biological differences between men and women” (Stølen 1996a, 18). It starts with the labeling of oneself and others as a ‘boy/man’ or ‘girl/woman’ and it influences the roles individuals are attributed to in social groups, as

well as the relations established among their members. This constitutes a gender system that partly dictates the actions and behavior of men and women, as well as values and ideas associated to maleness and femaleness (Stølen 1996a, 14). The social ideas of maleness and femaleness are explained as ‘natural’ as they are thought to be inherited in biological differences between the sexes. However, the social construction of gender is not biologically founded, but in referring to it as ‘natural’ it serves the purpose of maintaining a state of patriarchal power relations (Bourdieu cited in Moi 1991, 1030). This raises the highly debated and studied issue of power.

As Long (2001, 41) points out, “power cannot simply be possessed or accumulated. Nor it can be precisely measured in terms of quantity or quality.” This explains the difficulty in conceptualizing power. There are several forms and degrees of power, they occur in a simultaneous manner, in all forms of social relations. Based on Connell (1987) and Foucault (1981) this study regards the notion of power from three different but confluent levels. The first is concrete in terms of resources. The second is in terms of the social interactions established between individuals, and the third is more abstract (but materialized through practice) level of culture. In the first level, power lies in the hands of those who have access, control and influence over resources, both material and institutional. The second is more complex, as it is located in the ‘micro’ level: in the everyday practices and interactions of individuals. This is connected to social actors using different strategies to pursue their own interests, influence decisions, and the behaviors of others. As Foucault (1981, 94) states:

“Power is not something that is acquired, seized or shared, something that one holds on to or allows to slip away; power is exercised from innumerable points, in the interplay of nonegalitarian and mobile relations.”

The third is perhaps the most influential. It is built from the theory of cultural hegemony (Gramsci 1971), which locates power throughout cultural values, beliefs and ‘common sense’ ideas: “The poor don’t work enough” and “Women’s role is to take care of the house and kids, men take care of the money.” This leads to the legitimization and reproduction of the state of power relations across social groups and throughout generations. With this in mind, and according to Fox-Genovese (1982, 255), power relations in the macro level are established within two systems, gender and class. However an additional one is ethnicity, which is often connected to class. This was the

case observed in Santa Cecilia: men were dominant over women, and gringos were dominant over criollos.

In terms of gender, since the constructions that create the state of power relations are drawn from biological differences between the sexes, and thus perceived as ‘natural,’ both men and women act in compliance with them. Consequently, the state of power relations that follows is often unquestioned and evidenced in practice: simple tasks are assigned to women, and more serious duties are given to men. In Santa Cecilia, this created a division in which women belonged to the private sphere and men in the public (Stølen 1996a). However, this issue transcends the context of this study. As Stølen (1996a, 386) points out, the cultural ideas of maleness and femaleness found in Santa Cecilia are part of a wider-established order. Ortner (1974, 69-75) goes further and argues that women are attributed second-class status in every society, and she lists reasons and examples to support this statement.

As seen above, socioeconomic changes have effects in the state of gender relations. However, Stølen (1996a, 19) suggests that actors respond to them by adapting their behavior while, at the same time, aiming to preserve elements of their traditions and lifestyles, particularly those that are deep-rooted values and shared by many members of the same social group. “Gender systems may be adapted or recreated, rather than transformed” (Stølen 1996a, 19). There are no further studies on gender relations in that particular context; that is what this thesis is set to do, as well as to explore if changes observed in practice involve structural changes at the level of ideas.

3 Literature review

This chapter is divided in four sections. The first presents the main findings of the previous study carried out by Stølen in 1988 (Stølen 1996a). The second section presents information on agriculture and biotechnology, the third refers to the social context, and the fourth to gender roles and relations in the country.

3.1 Findings of the previous study

Given that the current thesis aims to contribute to, and it is based on a longitudinal study, this section presents a generalized summary and the main findings of the research conducted by Stølen in 1988. This is done in order to provide the reader some context and to contrast the changes and continuities further on in this thesis. The section is divided in three parts: the first is on agriculture; the second is on inter-ethnic relations and third is on gender. It is worth noting that this thesis refers to the notion of ‘inter-ethnic relations’ as the relationships established between two different ethnic groups present in Santa Cecilia, and their effects in labor, economy, and everyday life in the colony. In these sub-sections, some of the most relevant aspects found on these dimensions are included. Moreover, it is pertinent to clarify that since the original research took place in 1988, the findings are narrated in past, even though there are still continuities in some of the elements found.

On agriculture

An important aspect of Argentina’s sociocultural trajectory as well as its economic and agricultural development is the colonization of European immigrants after the country’s independence from the Spanish crown in 1810. Incentivizing foreigners to settle in the country was promoted and implemented by politicians and the military. It was done in order to populate the country, work the land, hold control and defend the territory from indigenous peoples, as well as from the bordering nations. Santa Cecilia, the starting point for this research, is one of the many migrant agricultural colonies of the country. Santa Cecilia was founded in 1895. The European settlers were agricultural families in their place of origin, but needless to say, they went through a lot of hardship adjusting to the new place and circumstances. The first decades of work consisted mainly of the

production of grains and linen for small profit, in addition to this, they produced fruits, vegetables and animals for household consumption.

Labor and many other aspects of life merged in the farm, thus the author refers to it as a socioeconomic unit of analysis, and takes it as the starting point to examine issues of agriculture, society and gender in the study. Understandably, labor and social relationships (in this case both between social groups, and *within* social groups) extended to the community of Santa Cecilia, where social interactions took place. It also extends to Avellaneda, the urban sector and capital of the municipality, and to other colonies around the area which share similar context and characteristics with Santa Cecilia. In 1919 the *Unión Agrícola de Avellaneda* was founded in Avellaneda to facilitate and support agricultural production and commercialization. Fast forward to the 1930s, an important agricultural change took place with the introduction of cotton. This was part of a new agricultural policy following the world economic recession of 1929. The crash decreased export demands from North America and Europe, which negatively affected the Argentinian economy. In addition to this, the new policy aimed at the industrialization of the country through local industrial production of textiles and other crop derivatives. Cotton production expanded rapidly throughout northern Argentina, but impacted Santa Fe and Santa Cecilia even more, as the ecological characteristics of the area were more appropriate for this crop than in other places.

The colonos have always been market oriented, they bought and sold their products and made use of other industrial and production sectors. However, before the introduction of cotton, they relied solely on the work of family members to obtain part of their personal consumption: fruits, vegetables, pigs and cattle, as well as for the profits to reinvest in the farm, and expand their production. In other words, they had no need for hired work. This changed with the expansion of cotton farming. Since this is a labor-intensive crop, they needed to hire manual labor for the harvest season. This is how the criollos arrived to Santa Cecilia, people from other parts of the region with different ethnic and cultural backgrounds. Initially, they were seasonal workers, but in time some of them settled in the colony and so it became home to both social groups. Moreover, cotton farming brought economic growth and fruitful times to the farmers, due to the high productivity of the crop as well as to favorable market prices at the time. Because of this, the colonos could save money, invest and expand their land. This also help lead to the

mechanization of agriculture which took place in the 1950s. The introduction of tractors and related machinery was gradual but determinant and, along with the transition to cotton, brought about important social changes within the family and the community. These social changes will be referred to in the section on social context.

In the 1960s and 1970s there was large-scale production of cotton and sunflower, which ensued in negative price fluctuation. In addition to this, changes in policies and agro-industrial monopolies brought difficult economic times for the farmers, some calling it “the most severe crisis in the history” (Stølen 1996a, 81). This led to mobilizations and the creation of the Agrarian Leagues, conformed by small rural farmers who protested against the dominant capitalistic model. The movement was dismantled in 1976 but the tensions between the farmers and the government has remained. In the following years, the colonos began to raise livestock for profits, beyond family consumption.

Another important change was the introduction of conventional (non-GM) soya in the 1970s. It was intended to replace meat in the Argentinian diets, but the initiative was not well received. Nevertheless, within a few years the grain became the third main crop produced in the colony, and it was marketed for animal feed and for its derivatives. By the end of this decade, farmers in Santa Cecilia had transitioned to more technified agriculture through the use of bigger tractors, and improved ploughing techniques. This represented an increase in productivity with higher crop yield and less need for workers. It also led to rural exodus as technology replaced manual labor. However, the town at the time had a growing industrial sector, and could accommodate the influx of unqualified/unskilled workers.

On inter-ethnic relations

In 1987, Santa Cecilia had 376 inhabitants of whom 177 were gringos, and 199 criollos. As previously mentioned, the differences between both social groups go beyond ethnicity traits and economic status. There was a clear division between them and this was evidenced in the various social, cultural and idiosyncratic characteristics explained by Stølen (1996a 94-96). For instance, criollos; men, women and children, worked as harvesters for the colonos. On the other hand, gringos were either farmers (colonos) or small entrepreneurs, since they did not like being anyone’s employee. Additionally, there were differences in how they practiced religion. The gringos considered

themselves devoted Catholics. They went to church every week and followed the church's commandments. Criollos also considered themselves Catholics, however they were not baptized and they did not attend mass. Moreover, criollo couples cohabited without getting married, they changed partners if the relationship turned sour, and it was not uncommon for criollo women to have children with two or more men. All of which was unconceivable and outrageous for the gringos.

These differences created an element of social tension. Gringos considered themselves superior to the criollos. The gringos saw themselves as rational, hard-working and family-oriented individuals whose economic dominance was the result of hard work and of following the Catholic principles. Conversely, they saw criollos as immoral, impulsive, lazy and 'hot-blooded.' The criollos were aware of this, and therefore regarded the gringos as arrogant and conceited people. However, there were no direct confrontations since the opinions both groups had of each other were mostly kept within their circles. But these perceptions had clear effects on community life. For instance, since criollos were seen as 'hot-blooded,' passionate people who were less capable of controlling their impulses, the gringas (gringo women) were afraid of being sexually assaulted by criollo men, even though there were no reports of any such cases in the year Stølen spent in the community. They also feared criollo women seducing colono men, and the men being too weak to resist the temptation. This was not as rare, but still uncommon; there was one suspicion of infidelity and three cases of inter-ethnic marriage. Finally, social interaction was kept within both groups, and there was hearsay, gossip, frowning upon inter-ethnic dating and other divisive elements.

Having mentioned the differences in ethnicity and background, and how they affected life in the colony, Stølen describes life in Santa Cecilia as calmed and relatively uneventful. On a day-to-day basis the colono lifestyle revolved around agricultural work, child rearing and household chores. In their free time they attended social gatherings –often divided by gender, women playing cards together whereas men went out for drinks, for example– and mass every Saturday. There were also occasional visits to nearby towns with more entertainment options. That said, the focus of the socioeconomic context of Santa Cecilia lied in the farm. Being an agricultural community, Santa Cecilia's economy was based on farming and cattle breeding. With

some exceptions, this is where livelihoods and salaries came from. On that note we can move on to examine labor in the light of gender relations.

On gender relations

There were three domains under which gender relations were examined in the previous research: labor, sexuality and procreation, and power and authority. There are many aspects considered within these domains, but this section presents some of the most representative.

Work took place at the farm and was divided among nuclear family members. Prior to the mechanization of agriculture, women also worked as harvesters in the field, but this changed with the introduction of machinery. By the 1980s, men worked in the field and were in charge of expanding and providing for the farm. In general terms, they made all of the decisions regarding the family and the farm's economy. Women were in charge of the family garden/orchard, which provided some elements for household consumption. Women did not receive economic compensation for their work, in other words they did not have direct access to money. Men administered the money, giving their wives just enough to buy the basic necessities. In consequence, many women found other ways to access it, some making and selling preserves or desserts, or saving and stretching the amount provided by their husbands. Even though both men and women worked hard, men had the responsibility –or the notion of responsibility– of providing and sustaining their families. In contrast, women were responsible for household chores and child rearing. These were eased throughout the years with the development of technology as well as decreasing fertility rates.

Sexuality and procreation is the second domain considered. This is a domain in which gender roles are clearly distinguished. Moreover, since many of the notions of masculinity and femininity were rooted in religious beliefs, Catholicism played a determinant role in the notions of morality and identity. Virginity before marriage was a must for women and expected for men. Girls were more protected than boys; they were to stay at home with their mothers except when they went to school together with other children. Their mothers worried about conserving their daughters' virginity and good reputation. There was anxiety and fear of sexual assault by the criollos. In the gringos' view, criollos had lower standards of morality and less control of sexuality.

Married couples were to enjoy their sexuality and fidelity was not gender-specific, both men and women were to remain faithful to their spouse, although some women said they would tolerate a sporadic affair. Women saw the lack of jealousy in their men as a worrying sign. Further, they would avoid casual interaction or conversation with other men to prevent upsetting their husbands. Motherhood is determinant for women's identity and the happiness and success of the marriage (and the continuation of the family farm). The ideal number of children at the time was 3.5, and their upbringing was the mother's responsibility. Boys and girls were expected to behave according to their gender –as it was culturally perceived; women as soft and delicate, men as strong and dominant. Moreover, homosexuality was seen as a disease, which would bring shame and dishonor and was to be avoided and prevented. Mothers were responsible for maintaining morality and notions of identity, 'preventing' homosexuality, and correcting behaviors that were not appropriate to their children's biological gender. Fathers were responsible for providing for the family, as well as of being hard-workers and strong role models for their sons.

Finally, there is the domain of power and authority in which elements of the previous domains can be gathered to show how female subordination took place in the community. For instance, although the use of aggressive language and domestic violence was unacceptable in general terms, some women believed that it was understandable in exceptional situations, in which the men had to discipline the women. Furthermore, since women worked at the farm and did not have a job outside of it, two dichotomies came into play. The first is the small money/big money dichotomy; women had no access to money, they only managed 'small money' while men handled 'big money.' The second dichotomy relates to inside/outside spheres, where women and men belonged respectively. Similarly, ideas of femininity, of being a good woman, mother and wife implied being 'house-bound.' Understandably, not having access to money and not having the liberty to come and go as one pleased is one of the several examples of female subordination. More interestingly, however, is that female subordination was reinforced and perpetuated by women themselves. Even though they would negotiate more freedom and independence, they did not rebel against the system, as in their view it was natural and it worked well. Stølen explains this under Gramsci's theory of cultural hegemony, in which the powers that be are maintained and reinforced by

everyday activities, cultural characteristics and common sense ideas that are not questioned by the members of the community (Stølen 1996a, 183-185).

3.2 Agriculture and biotechnology

Argentina is rich in natural resources and its economy is dependent on the production and export of agricultural and mineral commodities. Argentina is the eighth largest producer in the world. It is the twelfth largest exporter and the third when it comes to GM soya (Lende 2015, 10). Moreover, agricultural production affects other economic activities, as it is connected to the industrial and commercial sectors. In essence, the sector has great influence in the life of Argentinians, whether they work directly in the field or not.

The ways in which agricultural labor is organized vary and have changed throughout time. Prior to the introduction of biotechnology, in Santa Cecilia and other places, the prominent form was family farming. There have been many forms of family farming in the country, and no definition can represent the multiple variables that it encompasses. However, information can be provided on the context of Santa Cecilia. In the 1980s family farming was done through nuclear families: husband, wife and children working the farm, which would then be inherited by the oldest son. After the introduction of GM crops, the structure of family farming in Argentina has decreased as it has been replaced with a new form of agricultural production referred to as agribusiness (Gras 2012, 17). Nowadays, farmers are categorized as small, medium and large-scale farmers, or agricultural producers. It is estimated that small-scale farmers work up to 200 hectares, medium producers work more than 200 hectares, and large producers work 2500 or more (Teubal and Palmisano 2009, 199). It could be said that more divisions are needed, at least within the category of medium agricultural producers since there is a big difference between managing 200 and 1500 hectares. However, this reference is better and less ambiguous than others found, and thus it is the one used in this thesis. Having clarified that, we can now move to the introduction of biotechnology: the most significant change in agriculture of the past decades.

Biotechnology is “Any technological application that uses biological systems, living organisms or derivatives thereof, to make or modify products or processes for specific

use" (Convention on Biological Diversity 2015). The technology involves varied techniques and processes, but in the field of agriculture, it mainly refers to genetically modified crops; the most common ones are soya, corn, cotton and canola. The genetic material of the crop is altered in laboratories by adding genes of other organisms (plants, animals, bacteria), or through other mechanisms. This is done in order to facilitate the production and/or to enhance the condition of the crop (Miller 2004, 23-25). In terms of production, GM crops can provide better resistance against insects or viruses as well as improved yields and accelerated growth. In terms of condition, GM crops can have enhanced nutritional value and improved size and appearance.

It is worth mentioning that genetically modifying crops is not to be equated with plant breeding. They are two different processes with different implications. Plant breeding is an ancient technique of crossing plants to obtain improved crops. The plants crossed are related, and the changes occur after three plant generations or more (Allard 1999, 109). Moreover, plant breeding is the result of collective and public farming knowledge. GM crops often result of the research of private interests in which case they are patented by its sponsors (Torrance 2007, 258). Furthermore, biotechnology modifies organisms at a molecular level; this includes crossing natural realms such as by adding genes of a bacterium to the genome of a plant. Finally, it is a new technology, with the first crops commercialized in the mid- 1990s and thus its long-term implications are yet to be determined. The technology is promoted given its benefits for agricultural production, its potential to meet increasing demands of agricultural goods and to tackle hunger through the 'feed the world' argument. However, some countries have restricted and even banned the technology expressing caution and concerns about its potential environmental and health repercussions. Other countries, mainly The United States, China, Argentina and Canada have embraced biotechnology becoming the biggest producers of GM crops, and advocating in their favor through a 'pro-biotechnology coalition' (Bognar and Skogstad 2014, 76).

GM crops were introduced in Argentina in 1991 through the implementation of a neoliberalist decree signed by the Menem presidency. It involved several policies that deregulated the market, privatized public companies, took on an external debt, suspended mechanisms of state intervention in production, and allowed multinationals and other companies to play influential roles in commerce and trade (Newell 2009, 35).

All these measures had direct effects on agricultural production; however the main one was in connection to biotechnology. The GM soybean Roundup Ready (RR) was introduced in 1996 during Menem's government without consultation to the public, or support of independent environmental studies (Stølen 2014, 150). The reasoning behind the adoption of the crop was to increase productivity and re-invest export tax revenue to reduce poverty levels. This coincided with an international demand of soya and other oil grains, particularly coming from China.

“The government calculated that income derived from exports could help to tackle poverty in the country. Revenues earned from taxes imposed on exports of GM soya have been used to fund assistance programs” (Newell 2009, 32).

Since the GM soybean is an export crop, the government avoided the public's questionings on the potential health consequences.

The RR soybean seed is genetically engineered to resist Roundup, a glyphosate-based herbicide. Consequently, the seed can be sowed through the no-till method, without ploughing the soil. This means that weeds are treated with the herbicide and they do not need to be mechanically removed. This represents an advantage for farmers, given the increase in productivity and reduction in fuel and labor costs. The no-till method is also better for the soil, as excessive ploughing leads to erosion. Both seed and herbicide are made and commercialized by Monsanto, an American multinational company. The company can set the prices of the products, and since they are sold in dollars, they are affected by changes in currency. However, the patent on the RR seed is not recognized in Argentina, because the multinational failed to register for it within the required deadline (Teubal 2009, 84). The farmers are not legally obliged to buy them directly from Monsanto; therefore the seeds are processed, stored, and commercialized among them. This has represented economic loss for the multinational and facilitated the spread of biotechnology in the country. In the following years, newer versions of the GM soybean seed were introduced, the most common ones are RR2, INTACTA RR2 PRO and Vistive. These new seeds have a patent registered in the country; however they are also bought and sold in the black market (Vara 2004, 121). There have been long lasting disputes on the subject between different actors; the multinational, the government and the farmers. The current conflict revolves around the farmers' refusal to pay royalties for the new GM seeds (Bull and Aguilar-Støen 2016, 146), there are ongoing

negotiations among the actors, but there is uncertainty on how the conflict will be resolved.

GM soya spread rapidly since its introduction and amidst its royalty controversy. According to the Argentine Council for Information and Development of Biotechnology, in the year 2000, 80% of the soya crops planted were genetically modified, and in the year 2015 the percentage had reached 96% (ArgenBio 2015). It is important to note that this organization is managed by agrochemical companies, among them Monsanto, Bayer and DowAgro Sciences and it has an agenda of promoting their products. Unfortunately, however, data showing the progression for the crop in relation to non-genetically modified soya was not found from other sources. There are several reasons as to why the RR soybean has spread so rapidly, Pengue (2004, 92), identifies four of them:

- Cheap seeds due to no royalties on the first version of the seed.
- Fewer expenses on labor and fuel due to the no-till method.
- The temporary lowering of herbicide prices combined with an absence of import tax for agricultural supplies in Argentina.
- The marketing of the GM crop by Monsanto and its promotion by the government.

Furthermore, the value and versatility of the crop and its derivatives such as flour, oil and biodiesel and high international demand contributed to the appeal and therefore to the adoption of GM soya. Despite the economic advantages of the crop and the benefit of no-till farming, its widespread adoption has brought significant social and environmental repercussions. This is mainly because of the extent to which GM soya has extended in the country. Leguizamón (2013, 156) provides a figure (1) from the Argentinian Ministry of Agriculture showing the progression of the hectares planted with soya in the country, and its production in tons.

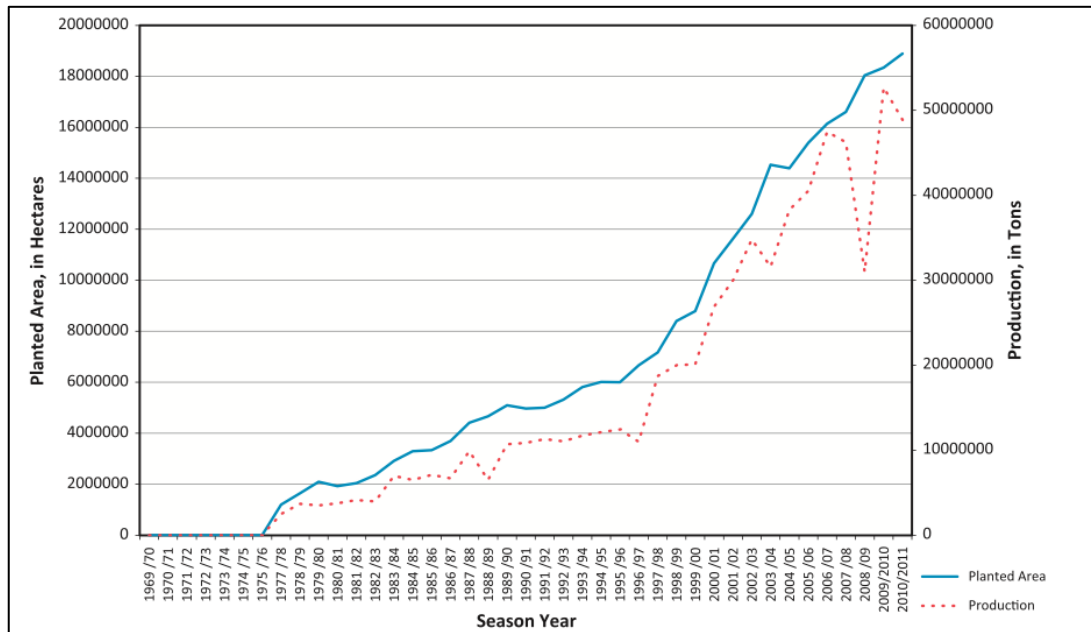


Figure 1. Soya in hectare and production in tons. Source: Leguizamon 2013.

Although the Ministry of Agriculture does not specify which percentage corresponds to GM soya, it is safe to estimate that it is over 90%, as ArgenBio states. Moreover, the trend has been accelerated through governmental programs that promote the implementation of the GM crop (Leguizamon 2013, 157).

In Santa Fe province, the area planted with soya increased from 2.354.520 hectares in 1994 to 3.427.400 hectares in 2008, the yield for that campaign was 11.480.000 tons, double the amount from the 1994. Furthermore, the international price of soya almost doubled between those years, however due to yield results it affected farmers differently. The gain per hectare in the 2008 campaign fluctuated between US \$927 and \$1988. The productivity of the crop is double in the Eco-Pampa, the humid region of the country, in relation to other places such as Northern Santa Fe, where Santa Cecilia is located. Some farmers were able to reinvest their profits while others struggled to pay debts and continued on the defensive strategy to remain in the sector (Gras 2012, 18-19). As seen, between 2008-2009 there was a sharp decrease in production due to intense droughts. This had negative effects for many farmers and the national economy, although the effects on the economy were partly mitigated by favorable international prices (Reboratti 2010, 67). This is a concern related to GM crops, given the role they play in the country's economy, and their dependence of favorable climate and market conditions in maintaining profitability.

An additional impact is that the expansion of GM soya is overtaking other sectors of agricultural production. It has replaced maize and wheat crops, as well as pastures and horticulture, which supply for the dietary needs of Argentinians. Furthermore, the expansion is crossing over the agricultural frontier, threatening vulnerable populations and diverse ecological regions (Lende 2015; Leguizamon 2013).

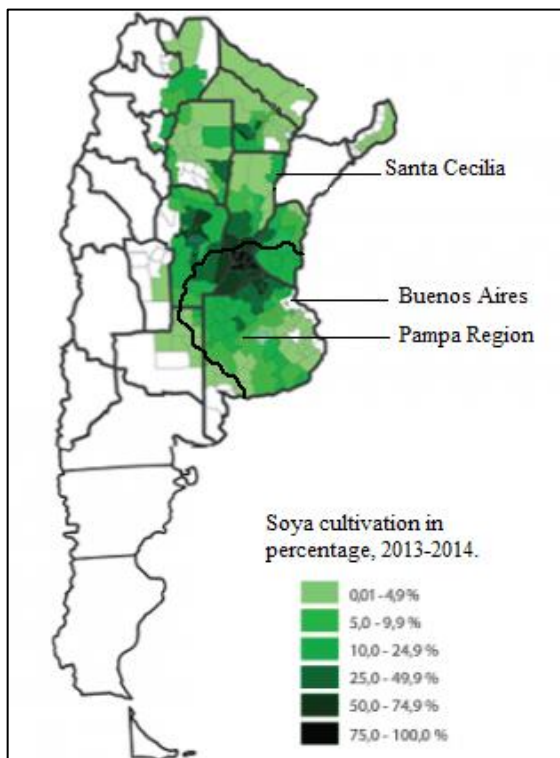


Figure 2. Area planted with soya in Argentina.
Source: adapted from SAGPyA 2015.

In 2015 an estimate of 24.5 million hectares were planted with GM crops, 21.1 million of them were soya. Figure 2 shows the map of Argentina, the colored part corresponds to the area planted with soya. The highest percentage is found in the Pampa, as its humid area is ideal for production and it is located close to the export harbor. However, as seen, the crop is found in nearly half of the country's area. Furthermore, the 'pirated' GM seeds spread to other countries, mostly Brazil and Uruguay, affecting agricultural production in said countries.

"Biotechnology has produced relevant transformations over the environment and society where it is allowed. Migration, concentration of agribusiness, and loss of food sovereignty are some of the social results. Landscape transformation in the rural sector is evident, and the appearance of tolerance weeds to glyphosate is a reality. Nutrient depletion, soil structure degradation, potential desertification, and loss of species are other consequences on the environmental level" (Pengue 2005, 314).

Extensive research has been conducted on the social and environmental implications of biotechnology. Most of the research found shows negative results associated with GM crops and the changes they have generated. However, it is also important to include some of the studies that show positive results.

3.2.1 Social impacts

Arguments in favor state that GM crops will help ensure sufficient food production for a growing population, and that they improve working conditions in the agricultural sector (Herrera-Estrella and Alvarez-Morales 2001, 258). In Argentina, GM soya contributed to the country's financial recovery after the 2001 crisis (Leguizamon 2013, 151). It is worth to mention that the crisis occurred in part due to neoliberal policies, including an external debt that accounted for 43.4% of the gross national product (Teubal 2009, 74). This followed the rise of an anti-neoliberal movement under which Nestor Kirchner was elected in 2003. His government re-structured the debt and expanded the GM soya production. His wife and successor, Cristina Fernandez de Kirchner, was president the two terms that followed (2007-2015). Her administration maintained the policies of the previous presidency, including the promotion of GM crops and its 'populist' agenda (Richardson 2009, 229).

GM soya led to the modernization of techniques and equipment creating a new form of agribusiness (Schurman and Munro 2010, 167). Technological displacement in the sector has led to unemployment and urban migration. Moreover, agribusiness implies the up-scaling of production, which requires more arable land. Therefore many farmers were left in debt, bankrupt and out of the rural sector (Grass 2009; Teubal 2009). Table 1 shows the number of farms by size in hectares and percent changes from 1988 to 2002 in the Pampa region.

Farm size in hectares	1988	2002	Percentage change
0-50	53,544	30,970	-42.2
51-200	67,374	45,511	-32.5
201-500	37,666	30,303	-19.5
501-1000	15,544	15,607	+0.4
1,000-5,000	12,634	14,168	+12.1
>5,000	1,427	1,768	+24.0
Total	188,190	138,328	-26.5

Table 1. Number of farms by size 1988-2002. Source: Gras 2009, 36.

The data above is taken from the National Agricultural Census which estimated that by 2002 there were 80,000 fewer farms. Nowadays, the prominent form of agriculture is managed by agricultural corporations or through sowing pools (Vara 2004, 110). Sowing pools are composed by groups of stakeholders that own and/or rent hectares when favorable agricultural seasons and prices are expected. For instance, Los Grobos, one of the largest sowing pools in the country, operates in 240.000 hectares, much of which is under leasing contracts (Leguizamón 2013, 165). This is a risk-management strategy for the sowing pools as the investors decide to re-new the contracts or not depending on the favorability of the season. Conversely, it affects the farmers negatively as they are left with few alternatives if the investors decide not to rent their land for the next campaign. Furthermore, stakeholders have representation and lobbying access to the ministry of Agriculture, where they can influence on important policy-making decisions, whereas the interests of small and medium producers have little representation (Varesi 2014; Barsky and Davila 2012).

These implications and the alliance of private interests have created and sustained a form of bio-hegemony. The term was coined by Newell (2009) who based it on Gramsci's theory of hegemony. The notion explains how the interests of dominant sectors which benefit from the expansion of biotechnology, are portrayed and disseminated as the common good, and so are assimilated thusly by the public. In the case of Argentina, bio-hegemony is evidenced in three forms of power: material, institutional and discursive (Newell 2009, 34). There has been a shift in material power, as agricultural production is controlled by corporations, investors and traders. This affects institutional power, as large producers have better access and influence in the government. Finally, discursive power is seen in the control of information and on the discourse surrounding biotechnology.

There are additional social complications associated with the expansion of the GM crop. Lende (2015, 13) draws on several reports that indicate a steady increment over land-conflicts in which agricultural corporations contest the rights of land of vulnerable populations, namely indigenous people and peasants. Although the Constitution states that indigenous communities and those who have pacifically inhabited a land for over 20 years are entitled to it, having no property deeds or access to legal representation have led to cases of eviction, displacement and dispossession. By 2011, a total of 857

conflicts had been registered over an area of 9 million hectares (Lende 2015, 14). Furthermore, an additional implication is food insecurity, since GM crops have overtaken the fields replacing domestic food production with export grains (Leguizamon 2013, 158). This, consequently, leads to increased prices of common food items and counteracts the goal of reducing poverty. On this note, we can move on to the final implication; part of the revenue collected from export taxes on GM crops is used to fund varied subsidy programs for unemployment. These, while important to address poverty and provide some relieve to those in need, have created two main issues. The first is a dependency on said subsidies, and the second is that it has prevented mobilizations against the ruling party (Leguizamon 2013, 158).

3.2.2 Environmental impacts

There are some studies that show positive effects on the introduction of GM crops. Their main arguments revolve around a decrease in greenhouse gas emissions and pesticide use. No-till farming requires less fuel, and plants engineered to repel pests need less pesticide. There is also the argument that biotechnology can help counteract some of the environmental changes and issues we currently face, with, for example the introduction of drought-resistant crops (Herrera-Estrella and Alvarez-Morales 2001, 250). However, there are oppositions for the arguments in favor. While Bt Cotton and Bt corn need less pesticide, the contrary occurs when it comes to the RR soybean, which requires glyphosate-based herbicide sprayings, and its dosing is increased as weeds develop resistance. Although this herbicide is considered less toxic than those previously used, it has also had negative effects on biodiversity as the formula is harmful to several forms of microorganisms, altering the balance of the ecosystems where it is used (Bilenca et al. 2012). Furthermore, studies have shown glyphosate to be toxic to animals (Relyea and Jones 2009) and residues have been shown to cause chemical pollution of the air, water and soil (Patnaik 2010, 245).

The environmental consequences are also embedded in other aspects of the technology. For instance, biodiversity loss also results from monocropping, a practice that has been intensified and generalized with the introduction of GM crops (Altieri 2009, 55). Another environmental concern linked to GM crops is deforestation. Four million hectares of forests are destroyed every year in South America, and a large proportion of

this is attributed to soya plantation (World Wide Fund for Nature 2015a). Furthermore, studies show that GM crops are not used to feed the world and help eradicate world hunger; the majority of GM soya is used as animal feed and biofuels (World Wide Fund for Nature 2015b; Cassidy 2015, 5), two of the main climate change contributing activities.

Varied research sources show the sobering extent to which these impacts are taking place in the Argentinian context. The use of glyphosate and other products has caused chemical pollution, affected biodiversity, created resistant weeds, and originated health concerns about human health (Lende 2015; Teubal 2009; Hidrovo 2006). In addition to this, the expansion of GM crops has extended to areas not previously used in agriculture, which has led to an increase in deforestation and biodiversity loss in the country. According to Lende (2015, 16) 95,8% of the area deforested in the country between 1998 and 2014 is located in the provinces where soya is cultivated. Argentina is one of the countries more afflicted by the issue of deforestation. In 2014 two million hectares were deforested, 620.000 of which were located in reservoir forest areas (World Wide Fund for Nature 2015c).

Furthermore, the need of more land to expand the GM crops, and the economy of scale is also generating intensive agricultural production across sectors. There have been changes in cattle and poultry breeding: from natural pastures to factory feedlots, and from free-range to industrial poultry plants (Garcia 2013; Pengue 2005). Furthermore, despite the no-till method, the intensity of the practice and level of exploitation is degrading and depleting the soils. The grains contain valuable nutrients such as nitrogen, phosphorus and potassium, and the scale process does not allow the natural replenishment of the soil (Pengue 2004, 95). The government has not taken significant measures to halt the expansion of GM soya production, as Bull and Aguilar-Støen (2016, 146) estimate, this can be partly explained given the profitability of the crop and the fact that it represents a significant source of revenue for the government.

Evidently, being a part of nature, our existence on earth has always affected and interfered with the natural world. However, GM technology takes this interference to an even deeper level. We are currently facing the effects of unmeasured exploitation and manipulation of natural resources, thus the prospects of the future consequences of biotechnology, though uncertain, could arguably be judged upon our past actions and

their results. Last but not least, it could be argued that biotechnology further objectifies nature, and therefore serves as counterproductive in the recognition of the intrinsic value of all natural beings, which exists independently of their utility to us human beings (Naess and Rothenberg 1990).

3.2.3 Perception of biotechnology in Argentina

Despite the social and environmental impacts of GM crops, in general terms, biotechnology has had favorable public opinion in Argentina. There are two main reasons for this. One is the positive economic effect that GM soya has had for the country, some calling it ‘an economic success’ (Leguizamon 2013, 160). The other is that the discourse surrounding biotechnology is influenced by the government, and agroindustry which benefit from it, leaving little space for critical voices (Stølen 2014, 151). That said, there are growing groups of social and environmental activists, peasants, farmers and scientists who have demanded more strict regulations on the expansion of GM soya and on the use of agrochemicals. For the time being, the critical voices have had no success in terms of pressuring governmental action and policy changes, but the concern is spreading to the general public (Bull and Aguilar Støen 2016; Arancibia 2013). In the past five years, annual protests against multinational agrochemical companies have taken place.

3.3 A generational shift

Since the time of Stølen’s fieldwork, a lot has happened to impact the lives of the individuals and their community. According to Appadurai (1996, 6-7) the most significant aspects in the last few decades which have led to contemporary times are: the shrinking of religiosity combined with greater scientism, the growing influence of mass media, and the consumption of commodities powered by industrialization. Stølen (1996a), references these aspects when observing the social context of Santa Cecilia in 1988, in relation to her first fieldwork fifteen years earlier, in 1973. For instance, Catholicism was still important but women would act against some of its principles by using birth control and traveling an extra distance to confess with a more liberal priest. Moreover, the mechanization of agriculture brought important changes for labor outside the farm, as did the use of domestic appliances for housework, the family and child

rearing. The washing machine gave women more free time to raise the children better, and the television brought new information and world perspectives to all family members. In 2015 the aspects mentioned by Appadurai are still relevant when analyzing social change and gender relations.

Understanding the generational shift that has taken place is important to reach the objectives of this research, and it requires looking into the context of social institutions in Argentina. However, before going into analysis and descriptions, it is important to clarify how the terms are used in this thesis. The notion of social change is wide: it denotes transformations of practice, behaviors, norms and values in social institutions. A social institution can be explained as an established pattern of relations. According to Mooney (2000, 9), there are five traditional social institutions: family, religion, politics, economics, and education. In the following subsections, information will be provided on four of the five social institutions mentioned above: religion, family, education and economy. It will cover some of the general context and important events that have taken place in the past decades in order to fill some of the gap from the previous research to the current one. The influence of politics is mentioned within each institution through legislations.

3.3.1 Religion

In the 1980s Catholicism had a prominent role in the culture and social aspects of the community. The gringos attributed their economic dominance to the hard work resulting from their religious beliefs and traditions, and because of their compliance of the religion's commandments (Stølen 1996b, 167). The influence of religion on gender was also significant. It played a role in shaping ideas of maleness and femaleness, in subordinating women to men, and in maintaining ideas of Catholic gender values across social institutions (Stølen 1996b, 168-174). It is safe to say that the community, along with the continent, has gone through a process of secularization. Presumably, the influence of Catholicism on people's lives and by extension in the society has diminished. However, the extent to which this has influenced gender roles and relations is to be presented later on in this thesis.

3.3.2 Family

The terms ‘family’ and ‘household’ are relevant to this project and it is therefore important to clarify them. A household is composed by people who live in a ‘housing unit.’ If two or more people in a household are related through blood or law, said household is categorized as a family. The concept ‘nuclear family’ specifies that the family members share the same housing unit. There are households shared by different generations in which the parents live together with their married son or daughter, their in-laws and grandchildren. This was common in Santa Cecilia in the 1980s, as women would move in with their husbands’ families after marriage. This was not a comfortable arrangement for the women, as they had to live under their in-laws’ rules, whereas it did not represent a change for the men. However, in 1988 Stølen observed that younger women were opposing this practice, and would try to convince their future husbands to build their own separate housing unit before the wedding.

Based on the above, looking into the family structure is essential when analyzing social processes (Tallman 1986, 254). Arguably, the understanding of cultures can be partly based on the study of families and their households by examining how their members and elements relate to each other and to the external community. In this sense, the focus on small groups of individuals is done to analyze the larger picture. Family dynamics are also important when examining gender relations. They can show how perceptions and roles are conceived and imparted among members through gendered tasks and responsibilities. Based on Varley (1996, 506-507), in the 1980s the ‘head of household’ was the person in charge of the general functioning of the dwelling itself, and/or the person in charge of providing the economic means needed for it; both tasks traditionally considered male responsibilities. The patriarchal family structure in which young members are subordinated to old, and women are subordinated to men has been common across cultures (Connell 1987, 310).

Social change affects family dynamics differently, and gives rise to different patterns of gender attitudes within families in the same context. Compared to thirty years ago, an increased number of families are more egalitarian in terms of gender, while others remain conservative. Questions on why this happens can be examined based on the findings and by contrasting them with the theory. However, in general terms and looking at the big picture, significant paradigms have been broken or modified: the role

of religion, the inside/outside and small money/big money dichotomies as well as the gendered tasks and responsibilities. It is safe to say that the patriarchal family and by extension the patriarchal social system has changed in the past decades. Women have gained more rights and responsibilities, both at home and in society. This has been due to different interconnected factors, including secularization and changes in family structure, and has been driven by other social institutions, an important one is education.

3.3.3 Education

Significant transformations have taken place in the Argentinian educative system in the past three decades. These both reflect and impact the social context, and thus some of the most influential transformation within education will be briefly referred to. The first National Education Act in Argentina was implemented in 1884 and it was still valid in the 1990s. It established primary education as obligatory, secular and publically funded. It made it mandatory for girls to learn about household chores and home economics, and for boys to learn about agriculture and undergo some degree of military training. The legislation was not officially reformed until 1993 when the scholar period was extended from 7 to 14 years –now including the secondary cycle– and the aforementioned gender-based subjects were no longer mandatory but still in place at some institutions (Tedesco and Fanfani 2001, 1).

The latest and current National Education Act was implemented under the presidency of Néstor Kircher in 2006. It established sexual education as a right, and thus the first and current National Program for Sexual Education was designed. New topics were included across the curricula. Moreover, teacher training programs and pedagogic materials were designed and implemented. The program considers different dimensions of sexuality, including its biological, psychological, social and legal aspects. Information referencing issues of gender roles and relations were found on the website, and teachers are to include these topics in their lessons (Ministerio de Educacion y Deporte 2015). The extent and manners in which this is applied will be considered further on. Furthermore, The National Education Act promoted and facilitated rural education as well as technical and vocational programs. In addition to this, it set a minimum educational budget of 6% of the GDP (Tedesco and Fanfani 2001, 4-5). Finally, Argentina, along with Chile, Uruguay and Cuba, has the highest literacy rate of

Latin America. Primary, secondary and tertiary education is publicly funded in the country, but the quality and options available are varied and they favor the bigger cities over the rural areas.

In the rural context an alternative form of education takes place through the *Escuela de la Familia Agrícola* (EFA) or in English, Family Farm School. The EFAs are inspired by a French model of rural education and were implemented in the country in the 1960s by agricultural families and promoted by the Catholic Church, with economic and legal support from the State. They were implemented to address the need of accessible and convenient secondary education, as rural communities often lack important infrastructure such as schools, hospitals, and connecting roads. The EFAs are semi-boarding schools: the students stay for two weeks at the institution, and two weeks at home thus making it easier for parents to arrange transportation twice every two weeks rather than everyday. Moreover, the pupils get home assignments and carry out practical activities in the two weeks at the farm. There are 120 EFAs in Argentina, all are located in rural communities. Most of them are in the Pampean region. The schools follow the National Curricula and have additional practical and theoretical subjects on agriculture.

The main objectives of the EFAs as listed on their website are: providing the necessary knowledge, tools and formation for labor (particularly within agriculture), encouraging and preparing the younger generations to work in the rural sector, and promoting agricultural development (Unión de Escuelas de la Familia Agrícola 2015). Their site also states that while the main objectives are connected to the rural area and agricultural labor, what is most important is offering quality and accessible education. Although it is not officially listed as an objective, an important role of the EFAs is that it provides a passage to tertiary education. Understandably, it is desirable that upon graduation of the EFA a good percentage of students continue a path within the agricultural field, however it is also important that there be a diversity of jobs, professions and careers that contribute to varied social needs.

3.3.4 Economic context

Argentina's economy has been characterized by periods of crisis and prosperity. The deep crisis of 2001 was followed by high economic growth between the years 2003 and 2007. However, the growth slowed down significantly between 2008-2011. A new

crisis afflicted the country in 2013, characterized by higher inflation, which has led to, among other things, an increase in prices and a devaluation of the local currency. There are varied reports in terms of the actual inflation rates, and Cristina Kirchner's government has been accused of manipulating reports (La Nación 2013). The World Bank (2015) estimates that in 2014, inflation hit a rate of 29.3%, making Argentina the country with the third highest inflation in the world in that year. One of its implications is that, in 2014, a nuclear family of four needed 38% more money to stay above the poverty line, in comparison to the previous year (Infobae 2014). Understandably, this economic context has affected the informants in their personal lives, and the farmers in their production. The extent of the impact will be explored in the findings section.

Another issue is in regards of the local currency and its relation to the dollar. In 2012 the government established restrictions on the purchase of dollars and other foreign currencies. People could only buy up to 20% of their income and they had to go through a long application process in order to do so. This created a black market for the currency, and a parallel more valuable rate referred to as 'dollar blue.' At the time of fieldwork, the official rate for one US dollar was approximately 9 Argentinian pesos (ARS), whereas the price of the dollar blue, bought and sold in the black market, was 14 ARS. This has had many negative implications for the agricultural sector, as production is embedded in the global market: they import agricultural supplies and export the products. An aggravation of circumstances came with low international soya and corn prices, which in August 2015 were estimated at below production costs (Reuters 2015).

Furthermore, there is the issue of export taxes and restrictions. Taxes on agricultural goods can be implemented as an executive decision and, unlike other taxes, they do not have to be re-invested or shared with the provinces (Richardson 2009, 244). Therefore taxes on agricultural produce are a simple and effective way for the government to collect tax revenue. Export taxes have fluctuated over the years but were increased in 2007 at the end of Nestor Kirchner's presidency. They went from 27.5% to 35% for soya, from 20% to 28% for wheat, and from 20 to 25% in the case of corn. Finally, the government can also establish export restrictions on products as a measurement to decrease the price of common food items (Richardson 2009, 228). Currently there are export restrictions for meat, dairy, corn and wheat.

3.4 Gender roles and relations

In 2015, a national survey explored the perception of roles and relations. The survey had a sample of 1500 men and women over 16 years of age, from different provinces and backgrounds (urban, rural sectors and educational level). One of their methods was to ask participants if they agreed with statements related to traditional gendered roles (Table 2). The results show that 61% of the women, and 60% of the men consulted agree with the statement that the most important role of a woman is to take care of the home and family. Other statements were not as agreed upon, showing some changes in the traditional roles. For instance, 41% of the men agreed with the statement ‘Real men know how to impose themselves,’ whereas only 21% of the women agreed with that.

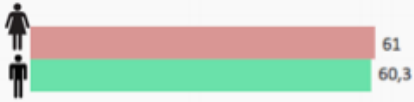
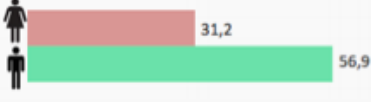
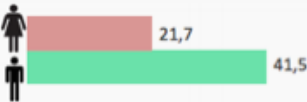
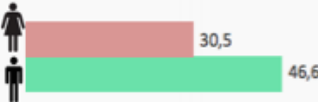
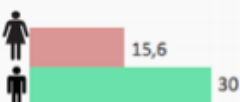
Gender culture in Argentina							
Statement	Partially or fully agree						
The most important role of a woman is to take care of the home and the family.	 <table border="1"> <thead> <tr> <th>Gender</th> <th>Agreement (%)</th> </tr> </thead> <tbody> <tr> <td>Women</td> <td>61</td> </tr> <tr> <td>Men</td> <td>60,3</td> </tr> </tbody> </table>	Gender	Agreement (%)	Women	61	Men	60,3
Gender	Agreement (%)						
Women	61						
Men	60,3						
In disagreement, a man should decide over important issues.	 <table border="1"> <thead> <tr> <th>Gender</th> <th>Agreement (%)</th> </tr> </thead> <tbody> <tr> <td>Women</td> <td>31,2</td> </tr> <tr> <td>Men</td> <td>56,9</td> </tr> </tbody> </table>	Gender	Agreement (%)	Women	31,2	Men	56,9
Gender	Agreement (%)						
Women	31,2						
Men	56,9						
Real men know how to impose themselves.	 <table border="1"> <thead> <tr> <th>Gender</th> <th>Agreement (%)</th> </tr> </thead> <tbody> <tr> <td>Women</td> <td>21,7</td> </tr> <tr> <td>Men</td> <td>41,5</td> </tr> </tbody> </table>	Gender	Agreement (%)	Women	21,7	Men	41,5
Gender	Agreement (%)						
Women	21,7						
Men	41,5						
Men need to have more sex than women.	 <table border="1"> <thead> <tr> <th>Gender</th> <th>Agreement (%)</th> </tr> </thead> <tbody> <tr> <td>Women</td> <td>30,5</td> </tr> <tr> <td>Men</td> <td>46,6</td> </tr> </tbody> </table>	Gender	Agreement (%)	Women	30,5	Men	46,6
Gender	Agreement (%)						
Women	30,5						
Men	46,6						
Infidelities on the part of men are more understandable than on the women's part.	 <table border="1"> <thead> <tr> <th>Gender</th> <th>Agreement (%)</th> </tr> </thead> <tbody> <tr> <td>Women</td> <td>15,6</td> </tr> <tr> <td>Men</td> <td>30</td> </tr> </tbody> </table>	Gender	Agreement (%)	Women	15,6	Men	30
Gender	Agreement (%)						
Women	15,6						
Men	30						

Table 2. Gender Culture in Argentina. Source: Ibarómetro 2015.

The survey shows that the incidence in agreement of conventional roles is higher among participants who are 50 years or older. Furthermore, it explores the perception of gender inequality by asking: “From a scale to very big to inexistent, how big is gender inequality in the country?” 63% of the participants answered ‘big or very big,’ most of

them younger than 50 years old, which indicates increased awareness of the issues in comparison to the previous generation.

3.4.1 Sexual division of labor

In 1988 most of the women of the community had very limited access to money and transportation. Three decades later things have changed and, as women have joined the labor force, it is now common for the women to have paid jobs. Having better access to money and stepping outside in the public sphere has contributed to women's independence and helped lead the women's liberation movement (Kirk and Okazawa-Rey 2012, 45). Furthermore, based on the Argentinian Ministry of Labor, the gender pay gap for registered employment has decreased from 27.8% to 23.9% between the years 2004 and 2013 (Ministerio de Trabajo, Empleo y Seguridad Social 2014). This shows progress although the gap is still wide. The same report also states that in 2013 women were more affected by unemployment at 8.5% versus 5.6% for men (although the accuracy of unemployment rates in the country is questionable and thought to be higher). Moreover, it calculates the rate of registered female employment by sector; that is to say the percentage of women working in the sector in relation to men. Table 3 shows that most women are employed in the service sector, and they have little participation in commerce, and minimal in the industrial sector.

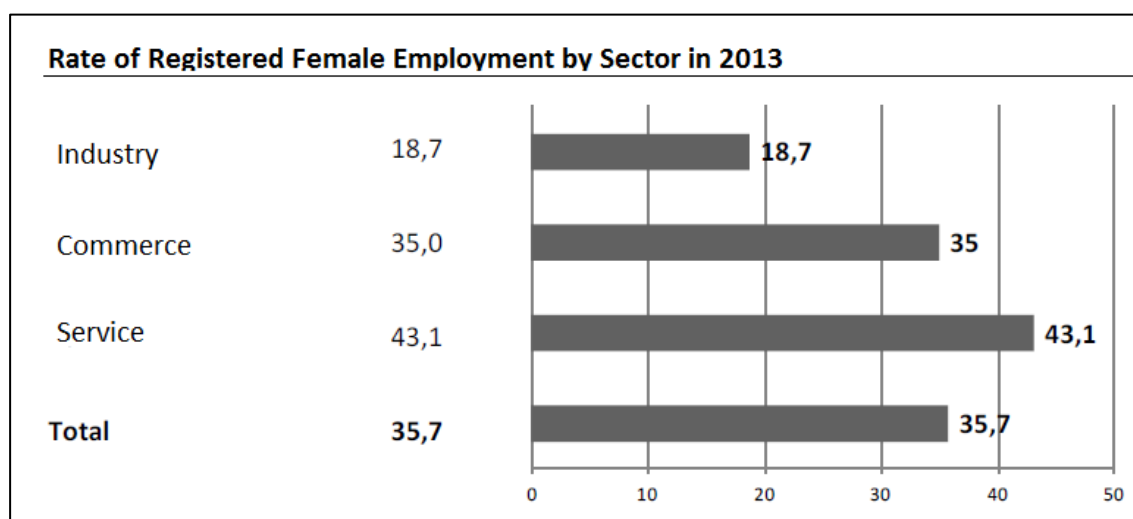


Table 3. Rate of female employment by sector. Source: Ministerio de Trabajo, empleo y Seguridad Social 2014.

Finally the report shows that women are less likely to occupy managing positions, and spend an average of three hours more than men doing household chores every day.

3.4.2 Sexuality and procreation

The process of secularization and the implementation of laws and policies have addressed some of the issues regarding sexuality. In 2010, Argentina was the first Latin American country to legalize same-sex marriage. Moreover, in 2012 a Gender Identity Law was passed stating that adults are allowed to choose their gender and that surgical and hormonal re-assignment is to be covered under public and private health insurance. According to Carbonelli et al. (2011, 26-29), there has been improvement ranging from increased individual rights –and choices– to a better understanding of homosexuality and gender (including transgender) identity. Furthermore, birth control has been made more available and women are less influenced by religion to use it. However, there are still significant issues in terms of unplanned pregnancies, and the way it affects women in the country. The percentage of children born to mothers nineteen or younger has remained stable at a rate around 15% from 1990 to 2011 (UNICEF 2013), despite establishing a national program on sexual education. The rate is high compared to developed countries, which oscillates at 8.2% (ibid.). The main predisposing factors for unplanned pregnancies are determined by economic and social backgrounds. Teen motherhood in Argentina is more prevalent in low-income and low-education families (Ashkenazi 2011, 60). Furthermore, a report issued by Human Rights Watch (2010) claims that the laws and policies implemented in the country in the past years lack the economic and human resources necessary to function properly.

“These laws and programs are spottily applied at best, and even when they are, the Argentine state fails to initiate accountability processes that could correct the lack of care” (Human Rights Watch 2010).

The report also questions the country’s stance on reproductive rights, as abortion is illegal and punishable by law, except for cases in which the pregnancy endangers the mother, or is the result of proven rape. It is estimated that 500.000 unsafe abortions are conducted every year, and they are the main cause of death among pregnant women in the country (Infobae 2015a). Understandably, these are issues that have direct and serious ramifications in the lives of women, but their effects also extend to their families and the society.

3.4.3 Power and authority

The domain of power and authority brings elements of the two above together. For instance, not having access to money, transportation, or having limited control over the body and sexuality contribute to female subordination. It is also related to the cultural notions of gender. The survey above showed that over half of the men and women asked believed that the most important role of a woman is to take care of the home and family. Similarly, it showed that a third of the women and over half of the men believed that, when making decisions, a man should have the last word. This is partly explained through Stølen's findings, as women in the 1980s expressed that they want 'real' men, that is to say, strong, protective and dominant. These results present a good example of how power relations are legitimized by individuals of both dominant and submissive groups.

Although it is safe to say that gender inequality has a more negative impact on the lives of women since they are the subordinated group (though with 'hidden powers' or 'room for maneuver'), understandably, it also affects men. Men have to fit into the narrative of being strong and dominant. This, according to Bourdieu, brings unpleasant implications for them, as men have to maintain their 'grandeur' and their sense of superiority (Bourdieu cited in Moi 1991, 1031). However, this also leads to another issue directly affecting women: gendered violence. Based on Westbrook (2009, 1), cultural notions of gender that represent men as strong and dominant, and women as docile and submissive, influence beliefs about the appropriateness of using violence towards women. This was observed in the 1980s as some women believed that physical violence was appropriate in exceptional cases (Stølen 1996a, 217). Finally, Brown (2004, 114) states that while there is a decrease in patriarchal norms, gender inequality remains a real issue for both men and women in the country.

4 Methodology

Given the objectives of this study and the nature of the research questions, a qualitative methodology was chosen to conduct it. Qualitative research involves “a form of social inquiry that focuses on the way people interpret and make sense of their experiences and the world in which they live” (Holloway 1997, 2). Its main characteristics include that the study takes place in a natural setting (as opposed to controlled settings such as a laboratory), and that it aims at understanding human and social phenomena through the reporting of personal views (Creswell 2013, 205). These conditions apply to this study. The natural settings are Santa Cecilia and the town of Avellaneda. Further, the phenomena studied are the socioeconomic impacts of GM soya production in the farming community, the state of social relations among gringos and criollos, and of gender relations among gringos. The thesis observes the changes and continuities in the past decades, in relation to the previous study, and how they have been influenced by the introduction of biotechnology.

Furthermore, collecting different type of data can provide a detailed picture of the context and the phenomena. That said, however, the picture described can be affected by personal bias, unreliable information, or by choices made in the process. With this in mind, it is important to recognize the role of the researcher in the study. In other words, this thesis falls under a constructivist approach. “Each of us sees different things, and what we see is determined by a complicated mix of social and contextual influences and/or presuppositions” (Moses and Knutsen 2012, 9). Acknowledging this and exercising rigor in the process can remedy or lessen this effect and contribute to the validity and reliability of the data collected and the analysis conducted (ibid.).

4.1 Fieldwork: Santa Cecilia and Avellaneda

The geographical context is important and all the Spanish names can make it somewhat confusing, thus maps zooming in the places from larger areas (province) to smaller (municipality) are provided. The small colored section in figure 3 shows the province of Santa Fe in the northeast of Argentina. Santa Fe is divided in 19 departments. *General Obligado* is one of them; it is located in the northeast of Santa Fe (figure 4). General Obligado is divided in municipalities. *Avellaneda* is one of them, and it is shown within

the department in figure 5. There are seven rural colonies in the municipality of Avellaneda; one of them is Santa Cecilia. Finally, the urban sector of the municipality is called Avellaneda town.



Figure 3. Santa Fe Province in Argentina. Source: Provincia de Santa Fe.

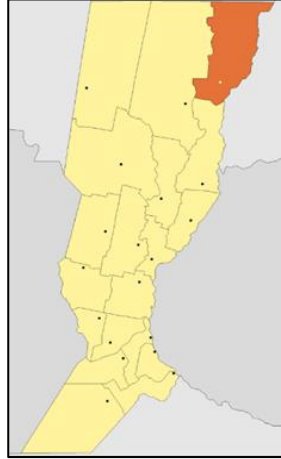


Figure 4. General Obligado Department in Santa Fe. Source: Municipalidad de Avellaneda.

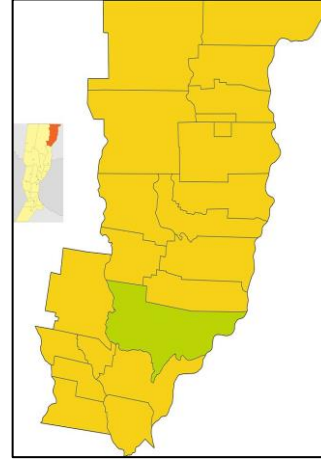


Figure 5. Avellaneda Municipality in General Obligado. Source: Municipalidad de Avellaneda

It is also important to clarify that the municipality of Avellaneda includes the rural colony of Santa Cecilia. When the term ‘municipality’ is not used, the text then refers to Avellaneda town, excluding the rural colonies. The municipality of Avellaneda has an area of 937 km². The latest census conducted in 2010 showed that the municipality had a population of 25,995 inhabitants. The latest census in Santa Cecilia was conducted in 2001 and indicated a population of 600 people. The director of human development of the municipality, Adriana Zamar, estimates that the colony currently has a population of 600 inhabitants, only 40 of which are gringos. Santa Cecilia is located 15 km from Avellaneda town. For anonymity purposes the exact location is not disclosed.

Fieldwork took place in July 2015 and lasted for 31 days. I was excited and nervous about the trip. I had not been to Argentina before, but I was relatively familiar with some of its culture. This familiarity and having Spanish as my mother tongue was very beneficial, however, the topics of the project: agriculture and social relations (emphasizing on gender) were new to me. To compensate for this, time was invested reading about the topics and the discipline. Moreover, I had preparation sessions with my supervisor in which I learned about the context, the informants, and the subject. I got in touch with some of Stølen’s informants prior to my departure from Norway. I

was fortunate to be welcomed in the homes of two of them; Ofelia who lives in the colony, and Maria who moved to Avellaneda town ten years ago. They grew up in agricultural families, and were part of the sample of the original study.

I arrived in Santa Cecilia on the first of July. My first impressions were in terms of the people, they are very friendly and I felt warmly welcomed. I also have good memories from the place. I had never been in an extensive flatland before; the sunsets were long and bright, but the most special sight was the Milky Way in the dark skies. Back to the research, close to the center of Santa Cecilia you see about 60 small houses by the main road; this is the '*barrio*,' the neighborhood where most of the criollos live. Going further into the colony you see the farms of the colonos. There are forty-five farms spread out, the houses are about double the size of the criollo houses, and only 12 are inhabited.

Since it was winter, little agricultural activity took place at the time. However, this worked as an advantage as my farmer informants had more time to meet me and show me around. Despite of the season, I got some sense of life and work in the sector. I visited places in the area including some of the fields, feedlots, some orchards and greenhouses. I talked to different people, and laid down some groundwork for the interviews. The gringos I talked to in the colony were really friendly and easy to talk to. They sent their regards to Kristi Anne, and told me I could count on them should I need any help. However, given that there are few gringos in Santa Cecilia and the research focuses on the next-generation, I moved to the second fieldwork location after four days in the colony. On the fourth of July I went to Avellaneda town, the place where most of the informants have moved, but I continued visiting the countryside throughout the fieldwork for interviews, observations and to take part in some events.

Counting on Stølen's informants maximized my stay. I did not spend time arranging accommodation, transportation, or building a base of informants and getting their trust and cooperation. Furthermore, being in their homes represented a good source of primary data through observing the context and participating in everyday conversations and activities. It allowed me to explore the issue of gender relations by examining how they engage in practice, the household and family dynamics, being attentive to their comments and reactions, and getting insight on the notions of gender roles from both generations. Furthermore, Ofelia's four sons are farmers and they gather often in her

house and engage in conversations about the agricultural sector, politics and other relevant subjects. Similarly, Maria's husband, Alberto (59) and their son Pablo (35) are also farmers. Maria lives with her husband and their daughter Lili (25). Pablo lives in an apartment but he came often for visits.

With this in mind, this study draws on several ethnographic elements of data collection. The most important one is being immersed in the place and conducting observation. In this case, it was participant observation, which involves a combination of participating in the lives of the informants while maintaining a distance that can allow appropriate recording of data (Fetterman 1998, 34). Another important ethnographic element is the use a fieldwork diary in which I recorded data as well as other useful (or potentially useful) information. I followed Burgess (1991, 54) guidelines when keeping my field notes: they were written as soon as possible after an observation, they included the date and the names of the people and places involved, and they were categorized giving them a place within the project. I had seven main categories in my fieldwork diary: Agriculture/Biotechnology, Politics, Economy, Education, Labor, Criollos and Gender. I wrote each entry and labeled it with the initial letter of the category in capitals.

4.1.1 Data collection

This research has a desk study component since part of the data has been retrieved from secondary sources (Moses and Knutsen 2012, 116). An important secondary source of data is Stølen's research conducted in 1988. Her results are published in a book and several articles, which I consulted in order to learn about the context, the theoretical background and to follow the line of the longitudinal study. Furthermore, information on the introduction of biotechnology and its impacts in Argentina was obtained from several sources, mainly Lende (2015), Leguizamon (2013), Gras (2012) and Newell (2009). Consulting the articles prior to fieldwork contributed to guiding the research in terms of what to look for, and what to ask my informants. It also contributed in contrasting my data with an existing body of research.

During fieldwork, empirical data was collected from different sources: the local media, joining and/or listening to casual conversations, taking part in varied activities and observing my surroundings. Primary data was collected through semi-structured interviews. As Walliman (2011,180) indicates, an important method to access

information is through talking to the people involved in the study and asking them directly or indirectly about their perspectives on the subject. I chose the semi-structured approach because it provides specific answers while allowing the conversation to turn to other potentially unthought-of topics. I used an interview guide (Appendix 1) but some questions changed and others were added throughout the fieldwork, and depending on the person I was talking to. As the Qualitative Research Guideline Project states:

“Semi-structured interviews are often preceded by observation, informal and unstructured interviewing in order to allow the researchers to develop a keen understanding of the topic of interest necessary for developing relevant and meaningful semi-structured questions (Qualres org. 2008).”

I was able to meet and have informal conversations with most of the informants prior to scheduling an interview and to maintain ongoing communication with them throughout the fieldwork. Most of the interviews took place in either the interviewees' homes. The shortest one lasted 25 minutes and the longest extended to an hour and a half. Although the conversation in many occasions would deviate to other topics, and thus not everything was relevant to the project. The sound was recorded and I transcribed and translated the relevant parts of the interviews to analyze them. I also wrote some of the impressions I got during the process: emotions evoked by a particular topic as well as the interactions before and after the actual interview. Finally, some interviews turned into spontaneous life-history narrations. Although unanticipated, this was a powerful source of data. Even though this method has been criticized for being subjective and non-generalizable (Plummer 2004, 10), I found the narrations very useful, particularly for examining the subject of gender relations. The narrations provided a deeper insight on the experiences of some of the informants. Moreover, since they were aware of the topics I was researching, they highlighted some of those aspects.

4.1.2 The informants

Although many different people helped inform the data to varying degrees, the informants are considered those who were interviewed. That is to say, eighteen people. Thirteen are the next generation of gringos of Friulian origin (the first generation arrived in Argentina in the 1880s, and Stølen's informants are the reference generation). The five remaining are not part of the next generation, but are considered key informants.

The next generation

Out of the next-generation members, six of them are the children of Stølen's informants, who are now adults as there are 27 years between Stølen's fieldwork and this study.

Three others are their spouses, and the remaining are people I met through the so called 'snowball effect.' They all meet the following criteria:

- They are gringos, which means that they are of Friulian ancestry (until recently there have been very few mixed marriages).
- Their parents are –or were– colono farmers.
- They grew up in the colony but now live in the urban area.

I believe that these informants are a good representation of their peers. Consequently, most of the data was provided by them; their stories, experiences and perspectives are often referred to in the finding section. Since there is a considerable age-gap between the members of the next generation, they are divided based on their ages in two groups as shown in table 4.

<u>The Next Generation</u>			
<i>Younger group: from 25 to 35 years old</i>		<i>Older group: from 36 to 46 years old</i>	
Male	Female	Male	Female
Juan 25	Lili 26	Marco 45	Julia 43
Eduardo 33	Ana 29	Carlos 46	Nina 38
Pablo 35	Lina 29		Silvia 44
	Diana 28		Lucia 39

Table 4. Next generation informants.

The members of the younger group, except for Juan (25), have no children. All of the members of the older group have children. Understandably, differences and similarities regarding social and gender relations were found between both groups. To facilitate the reading of the thesis, the stories and perspectives are referred to either by the name and age of the informant, or in generalized or common circumstances by 'younger group' or 'older group.'

Key informants

The remaining informants are considered ‘key informants’ because they meet such characteristics as explained by Rieger (2007, 1):

- They are knowledgeable in one or more areas of the research.
- They were consulted more repeatedly and/or extendedly than other informants.
- They can help verify the information provided by other informants.

The first two key informants are Ofelia (72) and Maria (58). I stayed with them in the rural and urban area respectively. As seen, they were both Stølen’s informants in her research. They have seen and experienced the transformation of the community in the past decades. They were very open and easy to talk to, and I felt comfortable talking with them about a wide range of issues. The third key informant is Spontón (53), the regional director of the National Institute of Agricultural Technology (INTA). He is an agricultural engineer and has extensive knowledge and experience in the field of agriculture. He was also one of Stølen’s key informants, and at the time of her research he was working for the farmers’ cooperative Unión Agrícola. The fourth key informant is Fernando (48), the director of one of the biggest EFAs (Family Farm School) in the municipality. He provided information on the educational system, and on the role of education in the social changes that have taken place. The last key-informant is Adriana (41). She is the director of human development, an important public office of the municipality. She is a psychologist specialized in gender issues. She is from Buenos Aires, the only informant who does not come from the area.

4.1.3 Positionality and limitations

It is important to bear in mind one’s position as a researcher, the relation to the place, the subject and to the informants, and how this may affect the data collection, analysis and the results of the study. I have my own pre-conceptions going into the research. An important one is in terms of the multinationals behind GM crops, given their potential to jeopardize food security by affecting the farmers’ tradition of using and storing seeds. Similarly, exploring gender relations was challenging, since I grew up in a Catholic and conservative country. I had to question my own views on the notions of maleness and femaleness, in order to examine their impacts and changes in a somewhat similar

context. Moreover, my academic background is in the field of education. I do not have formal theoretical and practical training in anthropology, or in the subjects of agriculture and gender relations in the bachelor level. However, these topics have been covered in several of the modules in the master program, and as mentioned, I have had the mentorship of Stølen throughout the process. Being aware of my own bias and stating it on the thesis can help mitigate its impact on the process and on the results.

In terms of my relation to others, my experience was that the gringos were open and happy to help. It was easy to talk to most of them and, very often as soon as I mentioned the purpose of my visit and the topic of my research, they shared their opinions and perspectives on it. Having Stølen's informants was also an advantage, as they already had an idea of my visit and how they could contribute. At the same time, it is important to be critical and analyze different possibilities. I did wonder if their connection to Stølen and her research could influence the informants' answers or opinions, however, after talking to many people, I think it was only a positive influence, in that it facilitated honest and open conversations.

Talking to criollos was different; they were more hesitant and less responsive. It was difficult to get the conversation going as I often got short answers and thus did not feel comfortable to continue inquiring. I tried different strategies but got the same results. I was told that this was because I look like a gringa and was seen as an outsider. This is understandable, given the tension between both social groups and since I was staying with gringos, they associated me with them. Luckily, however, I was able to get information on their context through Adriana, the director of human development.

4.2 Data analysis

Analyzing the data involved two main processes. The first one was going through the seventy pages that resulted from the fieldwork diary and the interviews to find what was relevant, how it was relevant and where it belonged within the research. The categorization strategy implemented in the fieldwork diary (Burgess 1991) facilitated this initial stage. This method was also used while reading through the interview transcripts. An additional organizing tool used for all sources but which was particularly helpful for the interviews was the 'coding and decoding' method. Biggs (2007, 39)

describes it as “a way of indexing or categorizing a text in order to establish a framework of thematic ideas.” With this in mind, I looked for common themes while going through the transcripts in order to find patterns of ideas and perspectives on a given topic. These themes represent both shared and contrasted opinions shown in the informants’ responses and in other sources as well.

The other process was making sense of the data collected. For this, I was informed by the inductive approach which “involves the search for pattern from observation and the development of explanations” (Bernard 2011, 7) and, arguably most importantly, I bore in mind the hermeneutical approach which is embedded in the constructivist paradigm and explains that individuals’ own identities and preconceptions affect the reading and interpretation of the reality of contexts (Moses and Knutsen 2012; Gadamer 1997). In order to lessen my own influence in the results, I contrasted the different type of data obtained in what has been referred to as triangulation. This implied that I often checked the information provided by my informants –and my own assumptions– with each other and with my key-informants, as well as with the remaining data sources and literature available. Finally, although these two processes (organizing and analyzing) are hereby presented as if they had taking place in a chronological order, it is important to state that this is not the case, on the contrary: they overlap and merge each other. In other words, the analyzing process was circular rather than lineal, as throughout the process I am constantly informing and making sense of the study.

4.3 Ethical clearance

This project complies with the ethical requirements established by the Norwegian Social Science Data Services (NSD). This organization emitted the ethical clearance for this research in October 2014, before fieldwork took place (Appendix 2).

5 GM soya in Santa Cecilia: impacts and responses

This chapter presents the socioeconomic impacts of the introduction of GM soya, the farmers' responses, and information about the national and municipal strategies, as they affect the people and the place of this study.

5.1 Rural exodus and loss of community life

One of the main changes that has taken place within the social group of the gringos is rural exodus. This was evident from the first days of fieldwork. What I observed was very different from the lively community described by Sølén (1996a). Only 12 out of the 45 farms are inhabited. Most of the remaining farms are only used as weekend houses, and others are abandoned and deteriorated. There are two abandoned miscellaneous shops, one of which is shown in figure 6, the football field is overgrown, and the church and community center are only used on special occasions.



Figure 6. Abandoned shop in Santa Cecilia. Source: Elisa Garcia.

The primary school is still functioning, but it is attended, almost entirely, by children of criollos. The school has ninety-three pupils, and only three of them are the children of colonos. It is important to mention that the '*barrio*,' the neighborhood of the colony where the criollos live, is still inhabited, and more crowded than ever. However, as it was before, the social groups are divided; they only interact with each other when needed. Most of the gringos in Santa Cecilia are over 50 years old. They often go to town to visit friends and relatives, or meet at each other's farms and houses for socializing. The members of the younger generation have moved to town or to other places.

There are three main reasons as to why the gringos left Santa Cecilia. The first is because of the changes generated by GM soya, the second is due to the lack of jobs and educative institutions, and the third is because of personal preference. They no longer need to live in the rural sector for work (given the changes in production and the opening of the labor market), and thus they choose the comfort of life in town. In terms of the first reason, the GM soybean is now the first crop produced in the region replacing the labor-intensive cotton production. Soya is followed by sunflower, wheat, corn and sorghum and no one grows cotton in the colony. Moreover, the introduction of biotechnology created a shift in agricultural production in which small-scale farming was no longer profitable. This led to a transition to agribusiness and the relative disappearance of family farming, which drove a lot of farmers out of the colony. Furthermore, the working mechanisms of GM soya, combined with improved road infrastructure and other technological devices such as the truck and the cellphone, allow farmers to live in town and commute to the rural sector when needed. The passage to agribusiness and changes in production is referred to later on, but to illustrate this point, Carlos (age 46, farmer) says:

"Years ago the roads to the town were in very bad conditions. You could not drive if it had rained. They are better today, there is not pavement, but at least you can drive if it had rained, most of the places (...) The crops require little labor and follow up. I can drive and do it myself in a day, or I ring Alexis (one of his employees) and tell him what needs to be done."

When it comes to the younger members of the community, the main reason why they left the colony was to continue their studies after completing the EFA. This, incidentally, shows a generational shift in regards to the previous study, since back then

it was not common to pursue higher education. There are no colleges or universities in any of the agricultural colonies, therefore most of the next-generation members moved to town to continue their education. There are also some who moved to other parts of the country. For example, two of my informants, Lili (26, architect) and Nina (38, physical therapist), studied in the provinces of Córdoba and Chaco respectively. They returned to Avellaneda after obtaining their degrees.

Out of the thirteen next-generation informants, a married couple, Marco (45, farmer) and Nina, live in Nitas, a rural town with 2559 inhabitants (INDEC 2010). Nina (38) says: “I think it is perfect, especially for raising children. Not too big, not too small.” The remaining next-generation informants live in Avellaneda town and none of them have plans to return to the rural sector. Lucia (39, teacher) explains: “I go and visit my parents. It is OK, but I couldn’t live there again. There is nothing to do. I like life in the town.” The other informants gave similar answers; there are more opportunities (labor, entertainment, social life) and facilities (infrastructure, stores, medical services) in town, and therefore they like it better there. My farmer informants agreed. Carlos (46) says that although he likes life in the rural sector it is better to live in Avellaneda, especially because of his wife and their two children: “My wife works here (...) the kids go to English lessons, dance and soccer practice. There is nothing of that in the countryside.” It takes the farmers thirty minutes to drive to the colony, and thus it is easy for them to commute.

Although in the 1980s it was common to leave the colony upon retirement, as well as to look for other options in town in the case of those who had not inherited the farm, rural exodus is a trend that has been exacerbated with the introduction of GM soya, this is due to the no-till practice inherited in the GM crops, as this has reduce the labor input required in agriculture. As seen in Santa Cecilia, it led to the abandonment of the colony and loss of community life. Furthermore, even though my informants refer to education and personal preference as to why they left, I will show in the next section that an underlying reason is the introduction of biotechnology, and the shift to agribusiness that it ensued.

5.2 Agricultural change

The adoption of GM crops involved a considerable investment designed for large-scale production. It entails expensive machinery, particularly sowing machines, fumigators and harvesters. Most importantly, it requires large arable areas. The GM crop has resulted in the economy of scale where large-scale production is not only more efficient, it is necessary for profitability (Lende 2015; Leguizamon 2013). In the 1980s a family could generate profits and expand their farm by cultivating 70 hectares with cotton, sunflower and conventional soya. This is no longer the case. Spontón, the regional director of the INTA, explains:

“Thirty years ago, a family could be profitable cultivating 70 hectares. Today that is practically nothing. You need at least 200, especially for soya. That is one of the main reasons why many people stopped working in the sector.”

There was an alignment of global, national and local factors that favored the adoption of GM soya. To recapitulate, the global factors included high commodity prices and demand, the role of powerful actors such as the ‘pro-biotechnology coalition.’ In terms of the national context, there was the need of the government to recover from a recessive economy, centralized decision in approving the introduction of the crops, an alliance with external actors, and the lack of seed royalties. In terms of the local factors, the farmers of Santa Cecilia were encouraged to adopt the GM crop through different communication channels, namely the government, the cooperative, and other farmers. Added to the elements above, the no-till method was an important incentive as fewer economic and human resources are allocated in time, fuel and labor. Furthermore, farmers could take the technological package on advancement to be paid upon the first harvest.

The elements above show that although the GM crop was not imposed on farmers it represented an opportunity ‘too good to pass.’ Moreover, taking advantage of the latest technological developments was regarded as a good strategy, and the appropriate next step to expand their production. This might be explained through their business’ approach. Farmers today follow the same principle of ‘survive or grow’ as their parents did in the 1980s (Stølen 1996a, 141). This means that they do everything they can to

continue working under difficult times, conversely, any profits they produce are re-invested in the farm, and opportunities to grow are seized.

That said, however, there was still the need of more land. And given the factors above and the profitability of the GM crop, land prices increased significantly in the country (Sili and Soumoulou 2011, 8). Farmers used different strategies to access more land and make the passage to agribusiness. Those who had extra capital purchased more hectares from other farmers. Others rented land at an initial stage and, when possible, bought it with the resulting profits. However, it is important to mention that the colonos rarely sell their land. They see it as valuable source of capital or investment, they say, “those who have land never lose.” Therefore most of the colonos who left the countryside and the agricultural sector rent their land to other farmers. This makes it challenging for the farmers as it is more expensive to produce on rented land. Other strategies involve joining land and efforts with family members or other farmers and, as a last resource, farmers accessed more land through loans.

This relates to the farmers’ past and present three rules of production: “Re-invest when possible,” “Make use of the cooperative” and “Do not take loans”. Since the national economy is volatile, and there are no national credit incentivizing agricultural production, farmers avoid taking loans. Even though, as we will see, the cooperative offers better loan possibilities, it is still considered a risky move. However, given the ‘hype’ revolving around the crop, some calling it ‘the green gold,’ farmers who could not expand their land with their own means did it through loans, most commonly not having the desired results. Adopting the GM crops and making the passage to agribusiness was challenging. Few succeeded in the transition, and most of the farmers were not able to make the passage.

5.2.1 Farmers who did not transition to agribusiness

Some of the farmers who had taken loans could not repay them. They did not have enough economic and human capital to begin with, and the scale of production they accessed to did not suffice to make the necessary profits and keep up with the payments. This was due to bad harvest results, increased prices of production, and difficult financial conditions. As a result they had to auction, sell or lost their land to the lenders. Others succeeded in adapting the GM crop, but not into making the passage to

agribusiness. Among my informants there is the case of Pablo (35). His parents own 64 hectares and rent 500 additional ones. Pablo works them together with his father planting soya and sunflower. They have recently bought a cow with profits they had from the previous campaign. They did it as an investment in their family business. Their plan is to diversify production, but they have not been able to buy more. There are other forms of family members working together with more hectares, though not having been able to expand their business and diversify their production. This is the case of Gastón (33), he works with his father and older brother. His parents own 83 hectares they rent up to 600 in Santiago del Estero (also north of Santa Fe).

The majority of the farmers who did not adopt the GM crop moved to town. They rent their land to other farmers except for one of the families who rents to external actors; stakeholders who invest in agriculture. There are no national or local land pricing regulations; prices are varied around the country. They depend on the area and on the type of production, as crops are more dependent of weather and soil quality. In Northern Santa Fe, the purchasing price of a hectare can range from USD 700 to USD 3000, and the leasing price is about USD 100 – 200, per agricultural campaign 2014/2015. However, a common payment method among the farmers in the region is by giving a percentage of the production resulted in the rented area. This is negotiated beforehand and ranges from 20 – 30%. Most of the farmers that lease their land still own their farm and use it as a weekend houses, while some abandoned it and cut ties with the rural sector. Those who needed to, and were able to, found jobs in Avellaneda town, the men most commonly in the industrial sector, and the women in customer service.

The few farmers who remain in Santa Cecilia rent their land for crop production and cattle breeding to bigger producers. However, they also engage in part-time agricultural production. The main activities are horticulture, greenhouses and raising farm animals. This is the case of Sonia and her husband (53 and 57). They tried to make the passage to agribusiness but were not able to. They lost fifty hectares out of fifty-seven since they did not manage to pay off a credit they had taken from the cooperative. The land was used as collateral and even though the cooperative offers better loan conditions, lower interest rates and the possibility to re-pay over the years, they were not able to repay the loan. Understandably, this was a difficult time for them, after the work and the expectations. They tried their best but it was not enough to adapt to the business model

as it is competitive and it favors those with better starting capital. They now have seven hectares part of which they rent for cattle production and one is used for horticulture. They plant leaf vegetables, mainly lettuce, marigold and chard. They harvest about 2000 of them each month, sell them to the cooperative, which then commercializes them in the department. They have a comfortable life but they both work hard. Their two sons and one daughter are grown up and have moved out of the farm. In addition to working in the orchard, Sonia (53) has started a small business strategy of selling fruit preserves with Maria (58), as we will see in the municipal strategy section.

Another example of an agricultural family (now couple since their children are grown up and have left the colony) who did not make the transition and stayed in Santa Cecilia is Nelci (58) and her husband (63). They rent their land to other farmers and Nelci works part-time in a greenhouse she built next to their farm with the help of a small credit from the Cooperative. She grows and sells flowers and small decorative plants. The flowers are commercialized through different means. She has a Facebook page for the greenhouse. People can visit and buy the plants directly, or she or her daughters deliver it 'door-to-door.' Mostly, however, they are sold through a municipal program which will be discussed later on. Finally, the farmers who are fifty seven or older receive a wage pension from the government. The amount they receive depends on their occupation and pension's fund, but it is around the minimum wage.

5.2.2 Farmers who transitioned to agribusiness

The aforementioned working mechanisms of GM soya, embedded in a capitalist system designed to minimize cost and maximize profit, have led to the relative disappearance of family farming, and to a transition to agribusiness which few agricultural producers succeeded in. As seen on the literature review, large-scale producers are considered those who work 2500 hectares and more, whereas medium scale producers work between 200 hectares and 2500 (Teubal and Palmisano 2009, 199). Based on this and given the reduction of family farms, an important part of agribusiness operates through powerful actors or elites, such as enterprises and sowing pools. These have large concentrations of land, external investors, and short-term contracts. This form, however, is mostly seen in the pampa region and is not common in northern Santa Fe. In the case of Santa Cecilia and in the rest of the rural colonies in the municipality, agribusiness

applies to local producers that work 1500 hectares or more, as their production activity requires the technological package, machinery and the diversification of production. Interestingly, however, although the structure of agricultural family as seen in the 1980s has disappeared, the farmers who adopted the GM crops or transitioned to agribusiness adapted to the changes by joining efforts with family members. From the farmers of Santa Cecilia, there are only two families who made the transition. The most successful passage and consolidation of agribusiness, measured in terms of the land they work, the diversification of production and their ability to make profits and re-invest in the business is the enterprise established by two next-generation informants Carlos (46), Marco (45) and his relatives.

Marco and Carlos belong to two family enterprises. The first enterprise is with their two brothers, Leo and Eduardo. The four brothers (the Martini brothers) come from a family with favorable gender composition. They only have one sister. To pay for their sister's land and part of the inheritance, the brothers paid for her education and bought her a flat in town. Families with more women than men are unable to do what they did. Furthermore, the three older brothers are married; their wives have paid jobs and contribute to household expenses, thus allowing them to re-invest in their enterprises. The Martini brothers all grew up in the farm and worked alongside their father in the cotton and crop plantations. Furthermore, they attended the EFA where they learnt about agricultural production, and three of them have tertiary education in relevant fields, including Marco (45) who won a scholarship to study agronomy in Venezuela. The starting family capital was a land of 80 hectares, but through hard work and re-investment in the business they now own 600, part of which was purchased from people who did not want to continue in the sector, as well as from a family who was not able to do so after the introduction of GM soya. In addition to the 600 hectares, they rent 1500 from both former farmers and people with other occupations that inherited the land. Almost 1000 of these rented hectares are located in el Chaco, a province north of Santa Fe. They produce soya and sunflower for export, and corn and sorghum for animal feed. They have had success in their enterprise and re-invested their earnings in their own agricultural equipment. They own a seed processing machine which prepares the seeds by cleaning and curating them. They use their own seeds and also sell them to other farmers. Furthermore, they own a sowing machine, fumigator and a harvester, which they lease out to other farmers.

In addition to machinery, the brothers invested in a poultry plant with the help of expansions advancements offered by the cooperative. The plant has a capacity to breed over 300,000 chickens a year which are commercialized through the cooperative. The plant has high technological equipment that regulates light, temperature and feeding. Investing in poultry is a risk-management strategy given the complications associated with crop production in terms of external factors such as climate, commodity prices and export taxes. Understandably, however, this activity is also subject to the global market and national regulations. The poultry industry, along with the rest of the sector, is going through an economic recession. According to my informants, and reports from the rural news channel, part of this is due to changes in export demand. One of the main export destinations of chickens is Venezuela, but given the crises the country is going through combined with incentives of local poultry breeding, the need of Argentinian chickens has declined. However, my informants claim that this is also connected to governmental interference, according to them, “the prices are manipulated so that we have to sell cheap, to secure food for the people.”

The brothers also belong to an additional family enterprise with their four uncles. The brothers own 25% percent of the enterprise and do most of the work related to it. Their uncles contributed as investors but also cooperate with labor and they all make decisions together. The enterprise focuses in cattle farming. They have a feedlot of 1000 hectares with almost 2000 cattle commercialization. They also cultivate 40 hectares of soya, corn and sorghum for animal feed. They rented land in the beginning and have been able to buy some of it after generating profits throughout the years. Today the feedlot operates with both own and rented land. Marco (45) explains that both enterprises have enabled him and his relatives to make a successful passage and to remain competitive. He explains:

“It has been a lot of hard work. We started renting land and in the good times, we made good profits. We bought land and equipment, and invested in the enterprise. Working together is what enabled us to progress, and it has to continue today, in the difficult years. We divide costs, risks, time and work.”

Information on the ‘good and bad times’ will be included in the tax and policies section. First I will refer to the mechanisms of their family enterprises. In addition to dividing costs and time, another strategy is dividing responsibilities. Carlos handles crop-

production and administration; planting, harvesting and he is in charge of the commercialization through the Unión Agrícola de Avellaneda (UAA) cooperative. Marco is in charge of the feedlot along with Leo. Finally, Eduardo takes care of poultry farming. This has enabled them to focus and specialize on a particular aspect of production, although they help each other and make decisions together. They often meet at their mother's house and they engage in discussions regarding their enterprise. They also meet in their office, which is located at the feedlot. The enterprises work under a capitalist model of saving and expenditures. The Martini brothers use working accounts in order to pay for the agricultural campaigns, the technological package, the renting of equipment, and their salaries. They manage staff as they employ 4 agricultural workers, two of which who are gringos. Furthermore, they follow the international soya price on the Chicago Board Trade, and estimate the best time to sell the soya, a move which can be both profitable and risky, as prices can drop significantly and unexpectedly.

There are also cases of farmers who are not family related but work and/or cooperate together; however these are not examined in this study. Suffice it to say that joining efforts has been a crucial coping mechanism to stay relevant in the agricultural sector. Furthermore, the farmers receive the support and work in collaboration with the cooperative Unión Agrícola de Avellaneda, an important collective actor that has played a definite role in the viability of agricultural production in the region.

5.2.3 The cooperative Unión Agrícola de Avellaneda, UAA

The UAA was founded in 1919 by colono farmers to join commercialization and logistic efforts. Its headquarters are located in Avellaneda town, but it has twelve branches that operate in six provinces. It has a staff of 720 employees and more than 2000 registered farmers (Unión Agrícola de Avellaneda 2015). Its purpose is to support the agricultural sector, particularly small and medium producers, and promote the development of the region by providing a range of services including:

- Capacitation on agricultural production: crops, cattle, and poultry.
- Capacitation on finance and management of agricultural production.
- Commercialization of grains: soybean, sunflower, corn and sorghum.
- Commercialization of supplies: seeds, chemicals, vaccines, antibiotics.
- Commercialization and maintenance of agricultural machinery.

- Veterinary and laboratory services.
- Financial support: investment loans, credit advancements.
- Cooperating with the INTA for training and research.
- Capacitation groups for women and youth.

Women's role will be addressed in the gender section. In the following paragraphs, I refer to the role of the cooperative as a collective actor by providing information on its services and resources. The cooperative employs experts of the agricultural field to help farmers assimilate agricultural changes, employ better strategies and keep updated. This is particularly useful since not many farmers continue with higher education after the EFA, thus the UAA plays an important role in further preparing them for agricultural labor and management.

The trainings usually take place over weekend courses, meetings and conferences. They range from teaching practicalities such as the application of the technological package, the appropriate doses of RoundUp and how to apply it, to capacitation about techniques that are better for the conservation of natural resources, such as no-tilling and crop-rotation to avoid soil erosion. That said, however, it also promotes the use of GM soya over conventional ones. GM crops are more profitable and they are considered better for the environment given the reduced use of fuel and the no-till practice. That said, however, the chemical cleaning of the soil requires more pesticide, and its use and quantity is increasing as weeds are developing resistance. On another note, the cooperative also provides capacitation on cattle farming, has encouraged and helped farmers to diversify their production, and gives entrepreneurship and financial advice.

Other relevant functions are in terms of commercialization, mediation and financial assistance. The members sell their harvests to the cooperative; the prices are calculated on the market and the producer pay a handling fee for facilitating their commercialization through trading mechanisms. Given the agribusiness system in place, it is easier and more effective to impart in commercial relations through well-established institutions, rather than through individual connections. The farmers do not have to invest time, effort and money in selling their products. Moreover, the cooperative negotiates with agricultural supplies directly, and thus, the farmers can buy the technological package, equipment and animals at better prices. Another important role of the cooperative is its mediation with other institutions. The cooperative works in

cooperation with the INTA for technical support, and it is connected to ConInAgro, the National Confederation of Cooperatives, in order to pursue better legislations and policies for small and medium producers. In terms of finance, the cooperative mediates with the National Bank in order to obtain investment or recovery loans for their members, which they can obtain with better conditions and interest rates than when applying individually and directly to banks. Farmers who wish to obtain loans through the cooperative are required to consult a specialist that works for it and to make a payment and production plan. If the lender does not pay in time the debt-period can be extended for a few years. The cooperative can work the land during the extension period, and the lender can re-pay and re-access it within eight years before they lose all property rights. This is a flexible system and has helped many of the farmers, whether they made the transition to agribusiness or not. Finally, as seen, members can also apply to short-term advancements before a campaign and repay it with the produce.

5.2.4 Recapitulation on the passage to agribusiness

The farmers (or former farmers) of Santa Cecilia can be located within three categories. The first is composed by those who moved to town and no longer work in agricultural production. The second are those who continue doing agricultural work part-time through farm animals, horticulture or greenhouses. They also rent part of their land to other producers and some receive income from other sources, retirement pension, or making and selling fruit conserves. These are the farmers who are 50 or older that continue to live in the colony, as the agricultural labor they do requires them to do so, although they enjoy life in the countryside. The third category is composed by the very few. Here are the farmers who were able to expand their area of production to at least 1500 hectares and handle large-scale agriculture of GM soya and diversified production. Since planting and maintaining GM crops does not tie the farmer to the land, these farmers left the colony and commute for work when needed. This is the case of the Martini brothers, and their relatives. They are the only farmers whose job is more related to administration than to working in the land. They lease out machinery to other farmers, run their own feedlot and poultry farm and manage personnel full time. Moreover, the farmers of the colony and municipality have a strong network base. The network is mediated, to some degree, by the cooperative which plays a determining role

in the sector. Finally, there is one family that rents land to external investors, a mechanism which was explained in the literature review.

5.3 Diversification of products and techniques

As seen in the section above, the cooperative encourages and capacitates farmers to diversify agricultural production. Carlos (46) explains that because of this, agriculture in Santa Cecilia is more varied than in other areas, and that soya, although important for the economic activity of the farmers, has not overtaken the level of production as in other parts in the country.

The diversification of agriculture involves combining crop production with other activities such as horticulture, poultry breeding and cattle farming. This represents advantages in three different areas; it is a safer business strategy for the farmers, it is better for the socioeconomic context, and it is more appropriate for the environmental conditions of the region. Before analyzing the advantages of diversified agriculture it is important to provide more detailed information on the region. Spontón, the regional director of the INTA, explains that the department where Santa Cecilia is located is not an ideal location for agricultural production. Precipitation is variable in quantity and distribution, which makes it difficult for the authorities and farmers to store or make appropriate use of the water, and to plan ahead. Furthermore, there are unexpected drought periods which can be intense and extended. Finally, the soil lacks essential nutrients (among them nitrogen and phosphorous) and it is deteriorated due to intense agricultural activity over the years. Consequently, it does not have the capacity to absorb and retain water.

Given the climate conditions the farmers use different strategies to minimize economic loss. One of them is alternating production cycles. This means that farmers divide their land and cultivate them with different crops, this is done because ecological conditions, weather and plagues affect crops differently. Moreover, relying solely on crop production represents more risk for the farmers. They do not have insurance on weather conditions and cannot get compensation if there are bad harvests results. In addition to this, the profitability of the crops is affected by international prices as well as by local regulations and restrictions. Marco (45) states that this is one of the reasons why their

enterprises engage in diverse products “You can’t have all the eggs in one basket.” In addition to this, poultry and intense land farming require less arable land and investment, and thus it is also a good economic strategy to engage in combination with crop production. This advantage extends to the socioeconomic context of the region, as varied production contributes to diverse economic sectors, and to food security through the production of meat, dairy, eggs and vegetables.

Finally, engaging in different forms of production is also beneficial for the environment as natural resources are allocated in different activities, and not solely on crops. Similarly, in terms of crops, farmers are encouraged to implement more sustainable techniques such as crop rotation to minimize nutrient depletion, using chemical and organic fertilization to re-store minerals, and avoiding or minimizing tilling the soil.

5.4 GM soya: practical information

In terms of GM crops, the farmers refer to the benefits of simplified labor and improved yield. They also talk about their potential to facilitate production in challenging situations. For instance, researchers at an Argentinian university are currently developing a drought-tolerant variety of soya, which if successful, would be very beneficial giving the climate and geophysical conditions of the region, they explain. However, for now the advantages are only in terms of cost and productivity. According to a report issued by the UAA, in 2013 92% of the soya was genetically modified. That year, the average yield of GM soya was 2,195 kg per hectare, whereas the yield for conventional soya was 1,829 kg/ha (Unión Agrícola de Avellaneda 2013). This represented a difference of 366 kg/ha more than the yield produced with conventional soya. The difference is not as significant as I had expected, and it is about half of the productivity found in the pampa. However, my informants explain that the advantages of the GM crop and the technology is not only in terms of yield efficiency, but also in terms of decreased production cost. Reports on the cost-benefit ratio of the crop in comparison to conventional soya are varied. Based on Leguizamon (2013, 151) the improved efficiency and reduction in inputs cost represent an approximate 15% profit increase.

Moreover, the no-till method is better for the quality of the soil as it avoids the erosion that results from ploughing. Instead of mechanically disturbing the soil to remove crop residues from the previous campaign, the soil is opened at a superficial level to deposit the seed. Since the RR soybean seed is modified to resist the agrochemical RoundUp, the soil is treated with it to eliminate the remaining weeds without affecting the soya plant. Spontón explains that the agrochemical is less toxic than the herbicides used previously, and that it has little to no negative effect on the soil. On that note, however, he states that there are plants that have developed resistance, in which case farmers apply more quantity while a new formula is available. The farmers are aware of the national protests against Monsanto. When asked, some informants expressed concern about chemical pollution, but mostly in relation to cases where areal fumigations take place and health issues have been reported, this is not the case in the department. Others state that herbicides have been used, even to larger extents, prior to RoundUp and that they are necessary for the production. Marco (45) shares an interesting point:

“The government has to say if the crops and chemicals are safe for people and for the environment. I don’t know about that. I am an agricultural producer; I am just doing my job. It is up to them to research and decide. But we have a president that says to us: use the crops, use glyphosate, take advantage of the technology; and then she turns around and blames us when the people get upset. She says it’s our fault, that we don’t use it correctly, that we use too much, that we are greedy and such nonsense.”

The national government has taken few measurements in response to the environmental issues and protests by the public regarding the use of agrochemicals and the presence Monsanto and other agrochemical corporations. In 2001 the congress approved an environmental law to protect natural resources, rainforest reservoirs. Furthermore, in 2008 the Ministry of Health established a commission to research the effects and impacts of agrochemicals, and their conclusion remains that more research is needed, in order to take measures (Ministerio de Salud 2015). This case helps exemplify why several independent sources argue that environmental legislations, policies and projects in Argentina are hardly taken seriously or enforced, that the provincial and national governments are influenced by their special interest. Consequently, research resulted from the government is unreliable (Lende 2015; Giarracca and Teubal 2010).

Although the agrochemical, the GM seeds and the machinery have facilitated and improved aspects in terms of labor and efficiency, understandably, agricultural production remains a complex process that requires specific knowledge and diligence in its execution. Farmers consider a plurality of factors including the weather, conditions of the soil, of the crops, diseases, and act accordingly to achieve desired results. However, I will briefly refer to the main elements involved in the cultivation of soya in order to show how they are influenced by the technology. The planting season for soya starts in November and lasts for two months. The farmers do not need to plant at the same time, and there are also different varieties of GM soya, with longer or shorter maturing cycles, therefore they can share/rent the machinery. The process is relatively simple and can be carried out by one person; a farmer loads the sowing machine with seeds and the appropriate fertilizers and they drive it through the field. It takes about a week to sow 500 hectares, but this can vary within a margin of days. The farmers monitor the plants in the growing process in case they need fertilizers or control plagues. There is no irrigation system; therefore the plants are dependent on favorable weather conditions. Three to four months later in March or April, they harvest the crops. The harvester can be operated by one person, but loading and transporting the grains requires more work and so farmers usually hire one or two extra people for this.

The grains are sold to the cooperative. After this the soil is prepared for the next crop; my informants mostly rotate with corn and the process is similar, though it is done in a smaller scale. In winter (June, July) there is little agricultural activity, and throughout the year the farmers do administrative and financial work. This is an important implication of biotechnology. On one hand, the combination of the GM seeds, the agrochemicals and the use of machinery facilitated and decreased work in the field. On the other, the passage to agribusiness that GM soya ensued requires significant administrative work in order to engage and succeed in large-scale production in the international market. This is also highly influenced by external conditions such as commodity prices, currency values and national regulations.

5.5 The national context: economy and regulations

As seen on the literature review, Argentina is going through an economic recession which is referred to by Carlos and Marco when they talk about current difficult times. Most farmers are worried about the economic situation, and profitability and the viability of the agricultural sector. This is a shared concern among all the informants, even those who do not work in agriculture. Issues regarding the politic and economic context were brought up in nearly every conversation, interview or observation. While there are many different concerns, emphasis was given on the following three issues: inflation, the parallel dollar, and export taxes and regulations. Some perspectives are provided below, to show how they affect the context of the research.

When it comes to inflation and its effects on prices of everyday goods and needs, Lucia (39, teacher) says: “Bread, meat, milk, soap, gasoline; everything is more expensive. We have to check for prices now, and see what we can afford to buy.” Furthermore, in terms of agricultural production, Pablo (35) adds “The price of a liter of glyphosate went from 2.20 dollars to 3.10 in the past two months. And it is expected to increase more.” There are multiple examples of this, and it is one of the sources of worry among my informants. Similarly, the emergence of a parallel dollar has had many negative consequences, particularly for those who work in agriculture. Carlos (46) explains:

“Two years ago there was one dollar rate, now there are two. When we export we get paid in the official rate (9 ARS per dollar), and when we buy our work equipment and supplies we pay the blue rate (14 ARS per dollar). This is a loss of almost 40%, just when it comes of the currency exchange. This added to the commodity prices, the taxes and restrictions is making it impossible for us to continue.”

The issue of currency exchange has affected the farmers, however they are also aggravated about export restrictions and tax regulations. In response to the economic recession the government established export restrictions in order to keep some consumer goods at stable prices, and accessible to Argentinians. Meat and dairy exportations are closed, and corn and wheat have exporting limits of 1 and 3.5 million tons per year, respectively. The farmers argue that these measurements do not help the general population. They explain that they only benefit large agricultural companies,

and the exporters of commodities. They add that the restrictions are further damaging the economy. Agricultural companies and large sowing pools have better access to export quotas; it is easier for them to do the logistics required in filling out forms, and they have more influence than small and medium scale farmers when negotiating with the government for them. Moreover, the farmers explain that when exportations are closed or restricted, exporters buy the crops at cheaper prices, store them, and then make a lot of money when they are opened again. Marco (45) adds:

“The restrictions don’t help the people; meat, milk and bread are more expensive than when exportations were unrestricted. The economy is still bad, and it is getting worse with these regulations. Dairy and meat packing companies are closing, and farmers are going out of business.”

There are some news sources that correspond with Marco’s comments. One reports that in April 2015, 11% of the corn export quota was assigned to ten corporations in less than twenty-four hours (El Economista 2015). Another report shows that the prices of meat and dairy products increased 30-50%, despite the export restrictions (Infobae 2015b). The president, on the other hand, lays the blame of inflation and high prices on varied factors: private banks, the media, the opposition, the United States and even on agricultural producers themselves. During one of her weekly presidential addresses she accused poultry farmers of being partly responsible for the closing of a branch of one of the biggest poultry processing plants in Buenos Aires. There are additional examples of this in news reports (La Nación 2015). Because of this, farmers often refuse to sell their crops and they go on strike periods, until the prices are more favorable.

This is another upsetting aspect for the farmers in Santa Cecilia. My informants tell me that the president often accuses them of being greedy, and of complaining too much. Here we can re-take the long lasting conflict between the agricultural sector and the government. To clarify, the agricultural sector, in this case, refers to small and medium producers represented by rural unions and cooperatives, excluding the large sowing pools and agricultural corporations, which do not take part in the protests and manifestations against the government and its policies. The conflict reached a peak point in 2008, when the Ministry of Economy under Cristina Kirchner’s government proposed the ‘125 resolution.’ The resolution included eleven points regarding agricultural production; however the most controversial was a system of mobile export taxes for export crops. This involved that taxes would be set proportionally to

international prices, which led to a significant increase in soya. The sector went on strike and there were major protests and manifestations around the country. The mobile tax resolution was not approved in congress, and my informants tell me that since then the government has been especially harsh towards them, both through policy and discourse.

The resolution was not passed, the export tax for soya continued at a rate of 35%, and up to the fieldwork⁴ it has remained at that rate. As seen, taxes have been relatively high since the introduction of the RR soybean, as the main reason for its introduction was to improve the economy through export taxes. However, the informants explain that they should be adjusted given the recessive economy, the price of the dollar, and the decrease in commodity prices. I asked the farmers if the mobile tax resolution was not such a bad idea after all, since it would have decreased the export tax on soya (due to the current price), had it been in place. They responded that given the formula used for the calculation the decrease would not have been significant, and that taxes could have reached over 60% under favorable international prices. In sum, they believe that the purpose of the resolution was to have as much revenue from the crop as possible. Further, they say that even though the resolution did not pass, the government has found other ways to interfere with production and to damage the sector.

All the farmers from my sample said they lost money in the previous soya and corn campaigns, and that they believe that the next one will be just as bad, or worse, if no changes in taxes and restrictions take place. Marco and Carlos say that last campaign resulted in a 30% loss. Their enterprise has to turn to savings for the next one, whereas the others are considering taking a loan from the cooperative. Pablos's father says:

“It would be better not to plant; had we not planted last year we would not have lost money. People tell me; ‘Well, why do you plant? Don’t do it, sell the land and do something else.’ I don’t know how to do anything else. This is what I do, this is my job. Besides, who is going to buy it now? But above all, I don’t want to sell, I hope things get better in the next government; we plant because that is what we do.”

⁴ When Mauricio Macri was elected in December 2015 he eliminated export taxes on crops, except for soya, which was decreased to 30%.

Furthermore, Marco adds that although the GM soybean drove many farmers out of business, the governmental regulations in place are making it very difficult for all agricultural producers to continue in the sector. However, the situation for farmers in the region is aggravated because, as mentioned, most of their land is rented which represents significant issues for profitability, the area is not as productive as in other places, and, in addition to this, their nearest export harbor is located in Rosario, over 400 km away. This makes it more expensive for farmers to pay for the transportation cost, compared to those who are in closer locations. Finally, there are no national incentives that compensate for these conditions.

Given the combination of these circumstances, my farmer informants are on survival mode, particularly those who made the passage to agribusiness as they are more directly affected by dollar and commodity prices. The farmers who work in horticulture, although they are concerned and worried about the current situation and the future, are not working at losses. Furthermore, all the farmers believe that the national measurements have created an unsustainable economic model in which the state has little regard for the agricultural sector that it relies on. They see it as unfair that their work is an important part of the country's economy, yet there is little investment or encouragement in the rural sector. Carlos (46) says: "Look at the roads, the facilities... the infrastructure. There is nothing here. The money goes where the rich people live, or to the poor, with the subsidies." He and the rest of the informants explain that a reason for this is that the agricultural workers represent only 2% of the electorate constituency, and that the government prefers to invest the tax revenue in the big cities and as a populist tool 'to keep them (the poor/the criollos) happy, and to secure their votes.' These are two additional socioeconomic implications of the GM crops: unemployment and subsidy programs.

5.6 Unemployment and national subsidy programs

The issue of unemployment is complex and has varied causes. Although it is not entirely due to the introduction of GM soya, it is related to the agricultural changes that have taken place. It also affects the context and the members of Santa Cecilia and Avellaneda, and thus it is included in this section. The system of national subsidies

however, is funded to a large extent by the revenue collected from the GM crops, and can thus be identified as a direct socioeconomic impact of biotechnology.

Unemployment

The agribusiness system has displaced many of the farmers who could not make the transition. Similarly, it has led to unemployment as GM soya decreased the need for unqualified labor. There are no current unemployment statistics on the municipality of Avellaneda, and there are conflicting reports in terms of the rate in Argentina. The National Institute of Statistics and Census (INDEC) states the rate in 2015 was 11% for the country and 8% in Santa Fe Province (INDEC 2016). However, another report estimates the national rate to be 16% that same year (UCES 2015). In addition to this, it is difficult to calculate the extent to which technological displacement has led to unemployment. There are no statistics or studies exploring this specific issue, but several researchers agree that it is one of the main socioeconomic implications of GM soya (Lende 2015; Leguizamon 2013; Teubal and Palasimo 2009). This socioeconomic impact is evidenced in the context of this study. To recapitulate, for the most part, two people can work 500 hectares of GM soya, and this includes all the tasks implied in the process: chemically preparing the field, planting it, maintaining it, harvesting, taking it to the cooperative and doing administrative work. Understandably, this is an advantage for the few farmers who made the transition; it reduces costs, maximizes efficiency, and simplifies their work since they no longer manage personnel “Dealing with people was difficult,” they say. But it has affected negatively a larger sector of the population, especially the criollos as it is more challenging for them to find other sources of income. Adriana, the director of human development explains:

“The gringos get income from their land, and it is easier for them to get a job if they want to. The criollos don’t have any of those options. They come to town to find a job. But there aren’t options here either.”

The gringos can find employment easier because they are more educated and have a strong network. In addition to this there are preconceptions associated to the criollos. In general terms, it is said that they are lazy and do not work hard enough. Moreover, there are not many opportunities for unskilled labor in town. According to Teubal (2009, 82), the industrial sector associated with crop-processing, that is to say, converting

agricultural products into marketable ones, is not a source of employment that compensates for the introduction of the GM crop. The farmers explain that they need skilled people to work with machinery and to operate transportation, but these are jobs that the criollos are not qualified for. They add that there is a lot of work to do to improve the rural sector, but that the national government does not allocate funds to it. The issue of unemployment has been aggravated by the economic recession, and the restrictions on agricultural production mentioned above. For instance, the Avellaneda branch of Pivideri, one of the largest poultry processing plants in the country, was closed in 2015. 170 people lost their job. The plant had been functioning since the late 1980s, however the owner said that installations will remain in place, and that they might re-open it in the future if the conditions allow.

National Subsidies

To address the issue of poverty and unemployment the government has national subsidy programs in place, some of which are funded through agricultural production. The programs available for low-income families (up to two minimum wages per household, the minimum wage official rate is apx US\$ 300) include:

- Natural gas subsidy.
- Communal breakfast and lunch at schools.

In addition to the above, unemployed heads of households receive:

- ‘Head of household’ + ‘Plan Familia’ which sum US \$26 per child, up to seven children and the children are required to register and attend school.

These subsidies apply to the criollo members of the community. My informants believe that they are creating a ‘hand-out culture’ in which people are getting used to being unemployed and living off benefits. However, the subsidies only cover some basic necessities, and people still need to find small jobs to make ends meet: selling food, accessories, recycling, women do cleaning work on day/hourly basis and men work in construction. The small jobs are unregistered so that they can continue to receive benefits. Adriana says:

“The benefits are not by any means perfect, but if it were not for them things would be worse: people would not have food to eat, kids would be out of school and there would be more homelessness and mendicity.”

There are additional financial aids in the form of low-interest loans to build a home (*Procrear*) or to start a small business. However, most of my informants cannot apply to them because they are “too rich, in the eyes of the government.” Maria (58) explains: “The government wants us to sell part of our land and build the house with the money, but we need that for work. We can’t just sell it.” She also needs a small credit to buy an industrial oven to sell cakes, but she cannot apply for that either.

Finally, as a strategy to incentivize the economy, the government established a program in which consumers can buy luxury items (smart phones, motorcycles, clothes, domestic appliances) manufactured in the country with a credit card. The card offers 12 interest-free payments and no limit amount (Ministerio de Produccion 2015). However, according to some informants and to the newspaper *la Nación* (2015), the products are imported, mostly from China, and assembled in Argentina. They are not fully manufactured in the country opposite to the information provided by the Ministry of Production. Pilar (60) says: “They pack them or revise them, or do something to them here so that they can put flag on it and pretend that we have a strong industry.” The comment is pertinent to further exemplify the frustration of my informants towards the government. They feel that the strategies in place do not help the economy nor relieve poverty. Rather, they keep it in place through mechanisms of small incentives and distractions. They explain that poverty and unemployment should be addressed by investing in infrastructure, quality education and technological development, particularly in support of the rural sector.

5.7 Municipal strategies

The Municipality of Avellaneda has created two main programs to address the issues of rural exodus, poverty and unemployment: *Project Santa Cecilia* and *Agregale Valor* or ‘Give it Value.’

The first, Project Santa Cecilia, started in 1998 and its objective was to provide safe and decent housing as well as employment opportunities for those who needed it the most. Therefore, the project was directed to the *criollos* of the colony, and this is the main

reason why they continue to live in the colony after the introduction of GM soya and the agricultural changes the generated. Before the project, they were living in unsanitary shacks, which they had built by themselves with inadequate materials and methods. These settlements were not connected to the sewage system and did not have access to electricity or drinkable water. The municipality bought seven hectares in the colony, and it provided the land, tools and the technical assistance necessary free of charge. The criollos built their houses themselves. 40 houses were completed in 2002.

In addition to providing decent housing, the goal of the project is to incentivize and facilitate entrepreneurship, thus tackling poverty and unemployment. For this, the municipality offered training programs for the families, including cooking and sewing courses and they provided some of the households with ovens and sewing equipment. Moreover, with the cooperation of the INTA, the municipality established projects to promote agricultural production through horticulture and pig and poultry farming. They built a food processing plant and a biodigester. In the food plant, the eggs, chickens and pigs are handled, and the biodigester processes organic waste and produces natural gas for the houses and for the food processing plant. These two installations are managed by criollo members of the community who are employed by the Municipality.

According to Adriana, these measurements still represents a source of income for about ten households, whereas the others did not make use of the training and the equipment provided, or did so but did not succeed in selling their products. They still live in the houses provided, but do other small jobs. In terms of the orchard, some of the families produce varied fruits and vegetables which are bought by the municipality and distributed in school and community kitchens. Figure 7 shows the houses, the orchard and the artisanal products.



Figure 7. The houses, orchard and products. Source: Municipalidad de Avellaneda 2015.

Finally, Adriana adds that one of the objectives of the program was to keep people in the colony as many were moving into the city to find work and opportunities. She

believes that the program has been successful in some of its goals, mainly on de-escalating rural exodus and in providing a source of income to some of the families. However, the project has encountered some difficulties. Many of the houses are occupied by more people than they were intended for, they have become multi-generational households as teenagers get pregnant and cannot afford to move elsewhere, or partners, friends and relatives have moved to them. Furthermore, most of the criollos remain in poverty. There has not been other development aside from the improvement on the living conditions.

The second program, *Agregale Valor*, started in 2014 and its main goal is to promote socioeconomic development in the rural sector, and to improve living conditions of rural families by facilitating the production and commercialization of artisanal products. Bernardo (45), the director of development and production of the municipality, explains its purpose:

“We want people to get involved with the land again. That is why we designed the program. It is still in its initial stages, but it is promising. There are almost twenty farmers taking part in developing and selling their products, and we are helping them in the process.”

‘Getting involved with the land again’ is also important for my informants. Several of them expressed that while the agricultural changes have had benefits and are important to keep pace in the changing world, it has also been sad to see the abandonment of the rural area, and the loss of agricultural work and tradition that many of them identify with. Some participants of *Agregale valor* believe that the program is a strategy to address that issue. They want to make use of what they learned growing up in the farm. But they could not have started their own business independently, or it would have been difficult to do so without the guidance of the municipality.

The municipality conducts market studies, provides trainings on product development and administration, and vouches for the safety and quality of the product once it meets the guidelines required. The participants come from the rural colonies, although some of them have moved to town. There are thirteen women and five men. All the participants are gringos, and five of them are from Santa Cecilia. Although there is not a written rule that prohibits criollos of getting involved, the program is designed for gringos. One of the reasons for this is because it is partly sponsored through an international cooperation

agreement called Territorial Pact in which the Italian city of Colonia Caroya, located in the Friuli region, provides funds and training for its execution. The products: jams, honey, salted/sweetened peanuts, decorative plants, pickled vegetables, cheese and cured sausages are sold at local fairs and festivities, and they are exempt of taxes. There are ongoing conversations on opening a designated store for the products in town, in order to reach more people and to simplify the work of the participants. To join the program, there is a mandatory training, and additional ones throughout the year. There are also members' meetings where discussions on logistics take place. The participants are able to get involved in the decision-making processes. Nelci (58), shares her experience:

“I have my floriculture greenhouse in Santa Cecilia. The program provides spaces to sell my plants. (...) I have learned a lot. I had the opportunity to go to Italy and see how they do things there and get good ideas.”

A delegation of fourteen people (including farmers and administrative officials) was invited to Italy to learn about local and artisanal product development, organic agriculture and the promotion and commercialization of the products. Others are also satisfied but seem less optimistic. Sonia and Maria make and sell fruit preserves together, and see a lot of value in the program. Although they also say that it is a lot of hard work, and that they are yet to know if they will be sustainable and profitable. Sonia (53) says: “It is a good idea, and it is good to try it out and see how it goes. But I am not sure. It is a lot of work, I don't know if it will be worth the time and effort”. This question also applies to the long-term viability of the program. Questions on external and local funding, how long it will last and how much it can cover are not fully determined as the program is still in its initial phases.

Although it is safe to say that both programs have accomplished some of their goals, revitalizing the rural area is not to be achieved through these measures alone. On one hand, it is challenging for artisanal farmers to compete with industrialized products. On the other, the programs hardly compensate for the structural changes that have emerged with the introduction of the GM crop.

5.8 Expansion of GM soya and bio-hegemony

As seen, despite the production of other crops and diversification of agricultural techniques the RR soybean is consolidated as the main crop in the colony and in the region. Furthermore, although farmers rented and invested in land outside of the Santa Fe province in the 1980s, the practice has been intensified with the introduction of biotechnology. The cases referred to heretofore are a representation of how GM crops have transcended the agricultural frontier. GM crops are planted across the northern region of the country, in Corrientes, Misiones, Formosa, Salta, Chaco and Santiago del Estero, replacing other forms of agricultural production. Most importantly, this is where the Argentinian rainforest is located. The expansion of GM soya has led to deforestation and the subsequent loss of important biomass: threatening the fauna and flora of the region (Lende 2015; Leguizamon 2013). In addition, it has led to conflicts over land and displaced vulnerable populations (Lende 2015; Leguizamon 2013). Farmers from northern Santa Fe plant GM soya mostly in Santiago del Estero and Chaco, as they are neighboring provinces. Furthermore, many do not use the crop-rotation technique given the logistics of travelling, and the fact that planting soya requires minimal supervision. When asked the reasons why they rent to cultivate in other provinces, and their thoughts on some of the implications that this has ensued, Eduardo (33) explained:

“What we have here is not enough. I have heard about the problems, but it is the large corporations that do it and get away with it. We don’t go there with bulldozers. We rent the land directly from the owners, and that is good for them. They get some income (...). I don’t like doing it. I have to live for almost a month in a camping car. It’d be more comfortable to stay here, but that’s how it is.”

That is the case for my other informants: being medium scale farmers they either rent or buy land from the owners, and have no part in the issues of deforestation and displacement of vulnerable groups. However, the issue is there and as Eduardo (33) said, it is the powerful actors that are responsible of it combined with the failing of the government to address them. This raises the issue of bio-hegemony and corporations. However, the expansion of GM crops can be examined from two levels. The first is among the farmers of Santa Cecilia, and how only those who had more capital (economic and human) were able to make a successful transition to agribusiness. This is the case of the Martini brothers and their uncles. They joined resources and worked hard

to create their two family enterprises, expanding and diversifying their production. They rent from gringos who inherited the land and have other professions, as well as from farmers who could not make the transition to agribusiness. Finally, they also bought land from others who filed for bankruptcy. The second level is in relation to powerful actors: local and external investors who, through sowing pools and agricultural corporations, are displacing farmers, vulnerable populations, damaging the environment and “getting away with it.” This relates to the issue of bio-hegemony and how the expansion of GM soya works in the best interests of the powerful sectors that benefit from it: the agrochemical transnationals, agricultural corporations, large sowing pools and the government. As mentioned, the government does not go against it because export taxes on the GM soya are an important source of public income.

Evidently, the concentration of land, money and power, is a sobering consequence of biotechnology. The farmers explain that this could be solved through legislation that regulates land property and use in proportion to fair taxation. For instance, those who work 1500 hectares should not pay the same export tax as a sowing pool that controls six or ten times that area. However, the interviewees argue that this is not done because of the influence of special interests, and the corruption of the government. On this last note, there were varied allegations on different corruption cases ranging from manipulating currencies to benefit investors, to money laundering and tax evasion. These were observed in news reports during fieldwork. Furthermore, the farmers showed concern about property rights of the GM seeds, and the legal and economic implications of their patents, although some referred to the difficulty of controlling the black market and of enforcing royalty laws. They explain that agrochemical companies develop a technology that is beneficial for agriculture and it is understandable that they do so for profit. Usually, after that, the conversation turned again to politics on the importance of regulating prices, fair taxations and incentivizing the rural sector. When I asked the farmers if they would consider working outside agribusiness and without using GM seeds, I got a look that made me almost embarrassed for asking the question. The timing seemed appropriate, especially when they talked about the challenges of the business and their concerns about not making profits and losing money, yet the question was out of place. Marco (45) answered:

“We can’t go back to working without them. The only hope we have is that the next government decreases the taxes and then it will be better. That’s not the problem; it is the taxes and the policies. We’d be worse without them. We can’t just live out of chickens and cattle.”

Turning to horticulture or non-GM crops was not considered an option. Those who do not work with the export commodities rely on renting their land to those who do, and other agricultural activities such as horticulture and animal breeding are done part time. Seemingly, leaving GM crops represents failing in the agricultural sector and finding other ways to mend off outside of it.

6 Inter-ethnic and gender relations

This chapter provides the findings related to the third and the fourth research questions, thus it is divided in two sections. The first is on inter-ethnic relations, and the second is on the changes and continuities in gender relations among next-generation of gringos.

6.1 Inter-ethnic relations

The introduction of GM soya has affected inter-ethnic relations in several ways. The first and most evident one is that Santa Cecilia is no longer a social agricultural community as production is not tied to small nuclear family farms, but to extensions of land managed by few farmers who do not live in the area. Agricultural production is higher than ever, however Santa Cecilia is now inhabited, almost entirely, by criollos. They remain in the community because of the houses that the municipality provided for them; moreover they live and interact in their own barrio. Given that the GM soybean has replaced cotton, the criollos no longer work as picketers. They engage in small jobs and are dependent of national subsidies. The subsidies are paid for by export taxes on the crops the farmers produce, this is a source of tension as the gringos disagree with the subsidies. Finally, unlike before, gringos are employed by other farmers to operate the different machinery and to do logistic tasks. Gringos working for bigger employer is a practice which was not in place prior to the introduction of GM crops. However this is not only due biotechnology, there are also changes in the labor market and the economy, as there are not many options to make a comfortable living independently.

Since I had limited interaction with the criollos, it can be said that some of the information hereby provided is biased. However, this thesis focuses on the perspectives of next-generation gringos, as they come from the agricultural families. Furthermore, to balance the view on the issues, at least to some degree, the criollos' perspectives can be taken from Adriana, the director of human development. She works in close contact with the criollos. She is in charge of developing, implementing and following several social programs including daily school breakfast and lunch, allocating lands and resources for decent housing, sexual education and domestic violence prevention. Because of this, she often talks to them on different issues, and she visits their neighborhoods, schools and homes on a regular basis.

6.1.1 Gringos and criollos

Santa Cecilia is the place where both social groups have more interaction, even though there are only forty gringos who remain in the colony. They buy fruits and vegetables, or other miscellaneous products from each other, gringo and criollo children attend the same primary school, and gringos employ criollos when needed (although this also occurs in Avellaneda town). There are also criollos in Avellaneda town; but they are ‘unknown/strange’ criollos in the eyes of my informants because they have come from other colonies, cities and provinces. They migrated to join relatives, and to look for jobs and opportunities. Avellaneda is an important industrial sector in the region. The municipality has one of the six industrial parks of the province (Provincia de Santa Fe 2015). The industrial park is located in town and includes varied companies, plants and businesses connected to agricultural sector and other areas of production. However, the criollos had no success as the town cannot accommodate the surplus of labor, and criollos are the last in the selection order (Adriana 2015). Most of the criollos of Avellaneda also live in peripheral neighborhoods, where they have their schools, stores and other meeting places. Gringos and criollos, both in the colony and in town, do not socialize with each other in their free time. They are divided and interact with each other only when needed. That said, however, the division between both social groups is not as evident in town, as there are people from varied places, cities and backgrounds.

Informants of the younger group tell me that they cross path with criollos when they go out partying in a nearby town that has bars, discotheques, and more of a nighttime environment than what Avellaneda has to offer. They explain that for the most part there are no issues between both groups, but that sometimes it can get uncomfortable, that fights break up between them and that they are approached by strangers with and aggressive attitude. Eduardo (33) explains.

“The other night we were on our way out of the club and then two of them approached me and said ‘Hey what, who do you think you are? You in for a fight?’ I was just standing there waiting for my friends to come out. Luckily they came and we just left, but it can get heavy. You see them fighting with each other, it keeps getting worse, it seems.”

They also express concern about a surge in drug dealing and drug use, something which was relatively unheard of in the area a few years ago, but which is now more common

and widespread. Pablo (35) says “Five, six years ago you only heard or saw alcohol and cigarettes, now it is marihuana and even cocaine. I don’t know anyone who does it, but it’s common among the new people.” Adriana (2015) explains that indeed there has been an increase in drug dealing and abuse. There are occasional reports in the two barrios where the criollos live and where the issue is mostly found, at least as far as she knows. They affect mostly the criollo community as the presence of few interfere with the tranquility of many inhabitants. During a visit to San Pedro, one of the barrios she explains:

“A problem we are dealing with now here is the rise of small gangs that intimidate the people. Some of the kids do not go to school because they are afraid of them. They just stand around the corner, they don’t attack anyone or haven’t done so yet but they are intimidating (...) and we can’t do anything about it because they are not doing anything illegal.”

Similarly as in Santa Cecilia, gringos and criollos are divided as they live in different sectors, and they rarely cross paths. Not many gringos work in the barrios, Adriana, social workers and teachers being the most common professions. Ana (29) who works as a substitute teacher in different schools tells me that she dislikes being called from one of their schools. She feels safe and has not had any significant problems, just bad attitude from some students and parents here and there, but she explains that the environment is different, and that she feels as an outsider.

Finally, the gringos are still the dominant social group in the colony and in town. On first impressions, the criollos are recognized by their appearance; they have darker skin from their indigenous ancestry, and are slightly shorter. Their most significant divisions are in terms of culture and economic class, but since I did not have meaningful interaction with them, I only refer to the latter. Class is seen in their occupation, level of schooling, homes and family structure. Consequently, information on both groups can be provided on those three social institutions, in terms of how they are perceived in the eyes’ of gringos.

6.1.2 Labor

As mentioned, the main characteristic in terms of labor is that most criollos do not work full-time or in registered jobs. They do not pay taxes, nor do they contribute to a

pension fund. The criollos do unskilled labor for others or work independently. Some of the criollos who live in the colony work with the means provided in the Santa Cecilia project. Others, particularly men, work as agricultural laborers when extra help is needed. The men who live in Avellaneda town work in construction, or as hired help in the industrial sector; doing errands, deliveries, packing and recycling. Similarly, many of the women in Avellaneda work independently. Some have opened small shops or 'kiosks' in their houses, they sell clothes and accessories that they buy in bigger cities. Those who have registered employment work in cooking and cleaning, as housemaids or in institutions. Conversely, the gringos hold qualified positions in public and private offices. In general terms, those who did not complete tertiary education work in the industrial sector in case of the men, and the women work in customer service, in companies, stores and restaurants.

My informants believe that criollos do not work full time because if they do, they lose the right to some of the subsidies. They also say that most criollos, few exceptions aside, lack the motivation and the effort required to do so. They add that it is difficult for them to rely on criollos. In the gringos' view, criollos are unpunctual, unreliable and they often fail to meet expectations, Estela (39, works in media) says:

“I always thought about opening a learning center for criollo women; teach them how to be professional, how to cook and clean properly. They do not learn this at home, so maybe if they do from us it would help.”

As a counterargument, Adriana explains that the main reasons why criollos do not work on a full time basis is due to the economic recession, the social context and the lack of opportunities. Many people are losing their jobs and it is difficult to find registered employment. Furthermore, those who are in the position to hire favor gringo applicants over criollos. Criollos know this, and thus are discouraged to look for jobs. However, Adriana agrees that, in general terms, criollos lack the drive for progress. She reflects on project Santa Cecilia: “It is discouraging to see the dusty sewing machines. They try, but they give up easily.” She agrees that the issue is aggravated by the system of social security in place, since they are only available to unemployed people.

Finally, they believe that criollos have no sense of community, particularly in the case of Santa Cecilia. My fieldwork coincided with the annual Saint Patron celebration of the colony, its most important event. The day is organized by gringos; one of the purposes

is to collect funds for the church and the school, but mostly it is about getting together with their acquaintances, friends and relatives. They find sponsors, organize a raffle, donate food for sale, and plan the music and entertainment for the day. The gringos do this on a voluntary basis and many take part, both those who live in the colony and those who moved to town. The day before the event twelve women of different ages but mostly over fifty, gathered in Maria's house to pack the food donated for the sale. When I asked if the criollos were involved in the preparation of the event, Maria (58) explained that they had been informed and asked for volunteers, but that not one was interested in collaborating. They agreed with the idea that criollos do not care for Santa Cecilia, even though they are the majority now. They added that criollos do not do anything voluntarily, that they always want something in return.

There may be good reasons to these comments, given the lack of participation and motivation on part of the criollos. At the same time, however, it is unrealistic for the gringos to expect that criollos work alongside them as equals in the event, since there has always been a power structure in which criollos are subordinate to gringos. In addition to this, it is understandable that criollos do not have the same sense of belonging to colony, as they do not use the installations and their social relations have been confined to the barrio. Furthermore, many of them came from other areas and stayed because of the housing project. In the end, the gringos hired seven criollos for the event, two women for cleaning, and seven men to prepare the football field for a soccer match and to work in the grill.

6.1.3 Education

There is only a primary public school in Santa Cecilia, and thus it is attended both by gringo and criollo children. This is not the case in Avellaneda town, where the children of gringos go to semi-private schools, and the children of criollos go to public schools. Public schools are run solely by the municipality. Semi-private schools receive funding from the municipality to pay for the installations and the staff, but parents pay a small monthly fee for materials, additional staff or other needs, and they are more involved with the institution. Semi-private schools have a board of directors composed by parents, where management and pedagogic decisions are discussed, though abiding by the national curricula. Understandably, the quality and the resources are better in semi-

private schools, given the extra work and money the parents provide. Some of the schools have air-conditioned classrooms, as the summer season can be 30 C or warmer. Furthermore, the groups are smaller, averaging thirty students per teacher, whereas in public school the ratio can be forty to one.

As mentioned, in the primary school of Santa Cecilia, only three pupils are the children of colonos. They are siblings and come from the same family. Their parents are the only couple younger than 50 that remains in the colony, the rest of the colono inhabitants have grown up children. Their mother says that it is difficult for the kids being the minority at school. Although they have some friends and good teachers, the quality of education is not as good as it was when gringos were the majority. Further, she believes that the level of education, atmosphere and social network are better in the semi-private schools in town. She adds that the kids are often excluded from the group: both in social activities arranged by the criollo children and their parents, and by the municipality such as school trips. For instance, there have been a couple of birthday parties that her kids were not invited to. This is not as upsetting, as she prefers that they socialize with other friends and relatives in town. However, the municipality arranged a trip to the cinema in Avellaneda town. They provided transportation, tickets and snacks, but this was available only for criollo children. The kids were upset and did not understand why they were not invited. Their mom explained that it was because criollo parents cannot afford to take their kids to the cinema, which was the reasoning provided by the municipality. However, she only said that to calm the children, as in reality she shares her kids frustration and feels that it was unfair.

Ana (29, teacher), who attended the school as a child and now works there occasionally as a substitute, tells me that the school has changed in the last years, and not for the better. She states that the staff does their best to provide quality education and an enjoyable environment, but that their efforts are not reciprocated.

“The [criollo] pupils don’t care about school and their parents less so. We were disciplined, did homework, followed instructions. (...) Our parents wanted us to have a good education and a nice school. That is not the case with them.”

The school is in good shape, according to Ana and others, mostly thanks to the work of its staff and other members of the community who still care for it, but the level of

commitment and dedication to the institution and to the educative process has significantly decreased compared to twenty years ago.

The situation is different in terms of secondary education. There are no secondary schools in Santa Cecilia. Gringos and criollos attend different rural school located outside the colony. The gringo children from Santa Cecilia and other colonies attend one of the nearby EFAs, the Family Farm School funded by agricultural families of the region. Similarly with semi-public schools, the EFAs receive funding from the municipality, but parents pay a fee for their children. Since the EFAs are semi-boarding schools, the students alternate two weeks at school and two weeks in the farm, thus facilitating the logistics of transportation. The nearest EFA to Santa Cecilia has 135 students and only four of them are children of criollos. Two received a partial scholarship from the municipality and the other two attend the school because their parents “care about education.” The director of the EFA explains that everyone can apply; but that the criollos do not appreciate the quality enough to pay for the fees. “They could pay for it if they wanted to. They buy smart phones, motorcycles, and television; it is about priorities” (Fernando 2015) he adds. Moreover, criollos do not attend tertiary education. There is only one college in the municipality and it is private. Criollos would have to travel to other towns. In addition to this, institutions have student quotas, and accessing them requires academic performance and resources. Some criollos attend vocational centers, where they are trained in a particular skill.

Adriana agrees with my informants in that the criollos are not so concerned with quality of schooling. They did not learn it as young as many of their parents did not complete secondary education. Furthermore, their parents had very bad schooling since their attendance depended on their work as picketers. Few of them went to school during the months of harvest, and when they did attend school, they were not properly fed, clothed and did not follow up with the school work. Arguably, the fact that the subsidies are tied to school attendance and therefore the majority of criollo children go to school can be seen as an indicator of progress compared to their parents’ generation; even if the quality is not as good. However, the schools criollos attend are not up-to par with the quality of education the gringos get, Furthermore, increased school attendance does not improve to additional issues found at a deeper level seen in the criollos’ household and family structure.

6.1.4 Household and family

Based on the 2010 national census 20% of the population in the municipality lived in conditions that do not meet basic necessities for decent housing (Universidad Nacional del Litoral 2014). A household is deemed decent when *none* of these points apply:

There are more than three people in a room. The household lacks connection to one or more public services, and there are one or more children under 14 who do not attend school. However, Adriana estimates that the percentage is now reaching 30% given the economic recession and the increase in labor immigrants from other places. The criollos of Avellaneda town live in small modest houses in two peripheral barrios, and in three occupied homeless camps. The municipality is currently building 140 houses to address the issue of homelessness, and this is another source of tension as my informants disagree with this measurement. They say it encourages migration and enables lack of work and effort, Julia (43, teacher) says:

“It’s not so much about the money, the politicians steal more than what they give away with these subsidies. It is that people not working. We fear about the future, and the society that this is creating.”

The phrase ‘*la cultura del trabajo*’ which translates to ‘the culture of work,’ is found all over my field diary, (that and the subjects of criollos, the economy and politics are very important to my informants). Seemingly, part of their identity, their self-perception and how they see themselves in relation to others, is rooted in the work that their families and their ancestors engaged in on a daily basis. Working the land, a difficult land for that matter, having an objective to grow in their business, and to conform what in their view is a good family, requires discipline, dedication and hard-work. For what I observed, my informants are goal-oriented and driven, which can help explain their frustration given that the current context does not allow them to pursue their goals and that they are now on ‘survival mode.’ In addition to this, they worry about what the future holds when there is a generation of people (criollos) who have not seen their parents have a proper job, and who get a good part of their needs covered by the social security system.

Another area of concern is unplanned pregnancies and high fertility rates among criollos. The limit of number of children for the ‘Head of Household Plan’ was increased from five to seven in 2013. The informants believe that this will contribute to

the women having more children to access more money. However, as seen in the literature review, this issue draws on several causes, namely lack of opportunities, lower education attainment, and higher tolerance of unintended pregnancies in the family structure. “Fathers tell their sons, you become a man when you have a child. Mothers tell their daughters, a baby comes with a loaf of bread.” (Adriana 2015). Based on this the issue is closely connected to ideas, values and notions of identity in their social group. Furthermore, some of the girls explain that they get pregnant intentionally in order to move out of their home, as it is common for girls to move to the boyfriend’s household (Adriana 2015). Moreover, it is not uncommon for criollo women to have children with more than one man, however nowadays my informants seemed more concerned with the number of children criollos have and how this contributes to poverty and the balance of population between both groups.

Finally, criollo households are not only multi-generational because of teen-pregnancy but in addition to this, because extended relatives such as uncles and cousins share a housing unit. The gringos, on the other hand, live in what is considered decent housing. Criollos see their living arrangements as altruistic, in their view they take care of each other when needed. Conversely, they see gringos as more egoistic. More information on the gringos household and family structure is provided below.

6.2 Gender-relations: the next generation

The data related to gender relations comes mostly from the women’s perspectives. I believe this is given my positionality; being a woman it was not as comfortable to discuss these topics with my male informants, at least not in the same level of confidence and detail. Moreover, four women shared a fairly complete and detailed life-history after I had asked them about their childhood in the colony. I include one of them to introduce the subject, and use it as a reference point to analyze the changes in practice and ideas in the three domains of gender relations previously discussed. This history was chosen as it is a more balanced account between both next-generation groups in terms of age, and because it includes information on other family members. Some parts were obviated to shorten the text, as they were not as relevant for this section.

I grew up in the countryside with my parents, two brothers and three sisters. When we were children we helped around the farm; my brothers helped in the field and my sisters and I helped with the household chores (...). My brothers got to go to town here and there, to run errands with him. We missed out on things. We were not allowed to go out alone with the bikes without our brothers. We had a horse, but were not allowed to ride it. "That's not for girls," my dad would say. My sister loves horses. It was a struggle with them; she insisting for permission but he wouldn't give in. She rides horses now, but she couldn't back then (...). Things were better in the EFA. It was good to go to school, change environments for a couple of weeks. We got to do more things there, basically the difference was that boys and girls had different rooms. We studied the normal subjects and learned about farming also. We had gatherings and events, normal high school stuff I guess (...).

My brothers tried college, but they did not like it. They work with my dad in the family business [raising cattle]. My younger sister is an accountant and my older sister is an agronomic engineer. When she graduated she had a hard time finding a job. She tried in the cooperative many times with no luck. "Men know what is best for the farm." Finally she found a job at the INTA. There is a difference between men and women. The discourse has changed in favor of feminism, but in reality there is still a difference. In my family there still is at least. I moved to Resistencia to study physical therapy. My parents were very supportive, I could study what I wanted and they supported me economically (...). I got pregnant when I was 21, in my third year of school. My boyfriend and I, we had to get married. No one forced us, but at that time we had to get married. When I got married my parents stopped sending me money. Thankfully, Marco took over; he started to support me economically. I guess I could have asked them to continue, but I was so hurt that I did not even want to do it. At that point he and I had to manage it on our own. I was living alone. Marco was working in the field. When I had the twins I took some time off school and then continued with my studies. We hired a nanny, but it was still hard (...). When I graduated I asked my father for help, for money. I needed to buy equipment and rent a consulting room, and he says, "You're married, why do you want to work?" [sigh] After all that effort! Studying all those years, with twins, and he asks me that? But it is not always like that. Families are different.

Marco helped me to start my practice, but he would say here and there. "Don't work so much, take care of me and I take care of you," jokingly, or half-jokingly. I spent time and energy at work. It is hard in the beginning:

building a clientele getting yourself known. And I think he would have liked me to be more of a housewife. We had a housekeeper who helped with the cleaning and the twins but it is not the same. And you see women who stop working once they get married, or when they have children. But it is very important for me to work, to do what I like and to make my own money. We bought a house together and share the expenses. We have a common account, and now with the rural crisis, we both have to work to be comfortable (...). We raise the kids [now 18 year-old] together, and make decisions together. We don't have a cleaning lady now that the kids moved out to go to college. I do most of the housework. I think women are the most 'machistas'; sometimes he does something and I say 'thanks for mopping, or thanks for cleaning the bathroom.' And then I think, 'why do I thank him?' The same with the twins, I would often ask my daughter for help and she would say 'Why me? Ask my brother too.' It is not just the men. My sister in law, for example, she says that my brother is like another child she has to take care of. She does everything in the house, and she works too. He never changed a diaper. He is 'machista,' like my father. He wants to be catered. But we tell her. 'Come on, that is enough make him help you too.' But she doesn't, so what can you do then.

(...)But it is better, better now than how my mom had it. At the same time it is also hard, being a working mother, having to do both even though my husband helps a lot. He helps with the housework and we raise the kids together. When they were children we alternated in taking them to events, or appointments. Whoever had more time, or we together when possible. I just had to ask and he would be happy to do it himself or with me. We discipline them together. I am stricter he says, but we parent them together even when we disagree. We don't have special rules for them. We don't say you can't do this you can't do that, like my parents did. [The twins] go out with their friends, partying at night, which we never did, not even my brothers. Times have changed (...). But at the same time we have to be stricter with our daughter. She has a boyfriend and she likes to go out a lot, and talk on the phone. I think she is too young for this, and her boyfriend is a bit jealous. So we have to try and guide her to focus on her studies, on other friends, and not to spend too much time and energy in their relationship. That is why it is a bit different with her. Our son, on the other hand, he plays football and video games. They are the same age but he is not interested in girls or in dating, so it is easier with him (...). I just want them to focus on their studies, and not to struggle like we did. It is not about that [conserving virginities]. It is about responsibility and thinking smart. I tell them 'It is hard to have kids. It is expensive too, you know.' There are so many single mothers who get no help. I'd rather they take it slow but you can't just tell them that. They also learn about it at school, I think that helps. I hope you talk to my daughter and encourage her about

her studies, getting good grades and applying for scholarships. She wants to study abroad. There are some exchange programs she can apply from here but they are expensive (...).

Nina's narration provides a picture of the past. It evidences the notions of maleness and femaleness and some of the consequences they have for children and adults. It also sheds light on changes in practices and ideas over the years, by briefing her experiences in the farm, in the EFA, as an adult and how she visualizes and questions the traditional gender roles she grew up with. In the sub-sections below, I draw on parts of this text by analyzing the three domains of gender relations within the larger context. I do so by identifying patterns within the perspectives and answers provided by the other members of the next-generation, as well as by including examples on empirical data, and by identifying differences and similarities with their parents' generations.

6.2.1 Sexual division of labor

When talking about their childhood in the farm, almost all the informants shared similar experiences in regards to the division of chores and activities according to their gender. They explain that in general terms their mothers were in the farm doing domestic work, or in the orchard growing fruits and vegetables, and their fathers in the field, or in town running errands. The only exception was the case of Pablo (35, farmer). He mopped the floor, cleaned and set the table, ordered his room and did other varied household chores. Maria, his mother, tells me that she wanted him to do and learn all these things.

The inside/outside dichotomy is also referred to. The mothers' work was tied to the farm. Similarly, as other valuable resources (property, land, income), the car was the fathers' work tool and therefore owned and controlled by men. Added to this, there was no public transportation. Consequently, women had no resources to get into town, more importantly however: they had no valid reason to do it. Even spending too much time outside of the farm somewhere else in the colony implied being judged by themselves and others for disregarding their duties. In their narrations, the female informants of the older group refer to an improvement in conditions and opportunities between their life now as wife and mothers. While giving me a ride to Maria's house, Silvia (47, works at a store) said:

“I go to the countryside, meet with my relatives to play cards once a week, meet my friends sometimes. Well, not too much. I have three sons. But I can take the bike or the truck and go wherever I want, whenever I want. You know, some women can’t drive this type of pick-up truck [4X4]? Some women can’t drive at all. I wanted to drive and I asked my father for lessons for a while. My father taught me. I think I was eighteen or nineteen. There was no problem in there, but it took some time. I couldn’t loan the truck either, but at least I learned.”

Furthermore, the dichotomy has been affected as both genders attended the EFA. Being two weeks at school and two weeks at home leveled the field since girls could leave the farm for education purposes. Furthermore, there were changes at an institutional level. In the late 1980s and early 1990s, students took common key subjects together (Spanish, biology, history and math), but additional classes and vocational trainings were divided. Boys learned about agricultural techniques, soil preparation and raising animals, and girls were instructed to be modern housewives. They learned about house economics, nutrition, and psychology to raise the children. Members of the younger group explain that this was not the case for them; the only classes that were divided were those dealing with sexual education. Ana (29, teacher) says:

“I went to the EFA (...). We had the same classes and chores. We did not cook but all the other chores we did ourselves. There was a room for boys and another for girls, same with the bathrooms and shower room. We were responsible for cleaning all the rooms and keeping them neat. We had the lessons together. We learned about general things and agriculture; although there were few workshops divided.”

Fernando, the director of the EFA explains that these changes took place over the years, as women showed interest in agricultural subject, and as the school realized the importance of including them in the lessons. Sometimes the groups are divided according to workshops, but now it is depending on the interests of the students, not by gender. Arguably, both women showing interest in ‘male tasks,’ and the directives of the EFA acting accordingly, indicates a re-structuring of gender roles at the educational level, and contributes to more equitable gender typing in other areas of social relations.

Furthermore, it is interesting to explore changes in practices now that none of the next-generation informants live in farms, and that the women have joined the labor force. When it comes to the next-generation, domestic work is no longer women’s sole

responsibility. Men are expected to contribute with the chores and many of them do, however the men of the younger group seem to do it more actively and willingly than the men of the older group. This can be partly due to the gendered-tasks at home and school, which contribute to both men and women's conceptualization of their roles in the household. Marco (45) says: "I try to help and hang the clothes in the patio and she comes behind me re-hanging them." This was a recurrent theme when the issue was brought up among the older group. Julia (43, teacher) says:

"We have a cleaning lady so the chores are not a problem. On the weekends we go out or I take over. It is not much either (...). And I do most of the things related to the kids. Buy their clothes and supplies, and these things. I like doing it, and it is easier for me to do it myself."

This was not the case in terms of the younger group. To illustrate, I can refer to the perspectives of Diana (28, accountant) and Lina (29, administrator). The first lives with her boyfriend and the second got married six months ago, neither has children yet, and both work full time. Their male partners take part in the house chores, from cooking to washing and cleaning the bathroom. Diana (28) says: "He is not as thorough with the cleaning but it is OK. Sometimes I have to ask, can you do this, that. It's annoying but better than doing it all myself." It is more common now to have men doing traditional female tasks. The case is similar with child rearing. It is no longer emasculating to see men taking care of babies, holding them in their arms, or changing diapers. Juan (25, works in the industrial sector), has a two and a half year daughter. He explains that he helped with everything he could when she was a baby, even though he was working full time and his partner was home for the first year. He says:

"I did a lot when she was a baby and now too. I pick her up from the kindergarten every day. We go home I make lunch for all of us. We watch TV, the three together, play or read her a book, or just talk. She started talking and talks a lot now (...) I wash clothes, dishes, the bathroom... You name it."

His partner agreed with these statements and says that Juan is very helpful with the household chores and with their daughter, and that work is fairly divided between both. Furthermore, the women of the younger group express that they want men who are good with children, who help with the chores, and who do not leave all the work to the women. That said, however, notice that the word used is 'help,' which implies that it is

still the woman's main responsibility to take care of the house and family. It is a step forward, but it still does not lead to equity in terms of the sexual division of labor, and the level of work and responsibility that is assigned to them. Despite the fact that men are now more involved, among the informants of the older group, it is women who are responsible for the general functioning of the household. This was the case in the 1980s as well. It involves making decisions on everyday things and keeping an established order. Following the children's schedule, making sure meetings and doctors' appointments are attended, stocking the fridge and planning meals and other everyday tasks. When they have a maid, it is the woman who communicates with her in terms of what needs to be done. All of this requires time, concentration and energy, and can be a source of stress and tension especially when it is combined with a regular job. In terms of the younger group the division is not as marked, at least not yet that most do not have children. Lina (29, administrator) explains that she has to consciously strategize in order to avoid the repetition of history. She says:

“My husband is an only child, and he is very spoiled. His mother is overprotective and he couldn't fry an egg. I knew it was going to be difficult living with him, but you find ways to win 'small battles.' The first months he would always ask, 'what should we make for dinner?' We cooked and bought food together but since it was my suggestion then I was the 'chef' and I did not want that. And it was me who had to think every day; it takes time to think about dinner [laughs]. But then one day I decided to stop, gradually. I mean, sometimes, instead of giving suggestions I'd say, 'I don't know, what do you think?' Many times. Or I'd say 'Umm, I have no ideas. You decide today.' And he did, and we ended up having bachelor food (frozen pastries, pizza, take-out) for dinner several times. But now I say, 'look a recipe online...' and he does. And he has stopped asking so much. Now I ask him, or he just suggests something. I think it is small battles. Dinner is one of those things that takes most time. He also helps to wash dishes. Never when we are in his parents' house but at our house he does. (...).”

Although not all the cases are the same, there is similarity between them. Women from the younger group show more resistance to traditional gender tasks and act accordingly. Nowadays, the role of women of the next-generation includes getting a job and contributing economically for the household and family expenses. Currently, all women of the next-generation have paid jobs. In the colony, there were no suitable job options for women. Furthermore, the conception of the 'ideal woman' was confined to the

inside sphere. In this regard, changes both in practice and ideas were identified. Analyzing the informants' narrations, the change in practice came first. As women started to study and find their place in the labor market, the idea that women can and should contribute economically came to place. I also identified differences between the younger and the older group. It was more challenging for the women of the older group to study and start their careers, and they also explain that it is more difficult to combine family and work life. I can refer to the next case.

Silvia (47, works at a store) has been married for 18 years. His husband is a farmer and they have three sons, ages 16, 12 and 6. They live in town, in a house they bought together. She grew up in the countryside and after the EFA she started studying Law. However, she got married in the beginning of the studies and had her first son a year after. She struggled for over seven years trying to complete her law degree while being married and having kids. She said that at the time getting married did not seem like a rush, but that she should have waited until she was done with her studies. She tried different strategies to continue. She took part-time and long-distance courses, but she was not able to graduate. However, her views are arguably more traditional than those expressed by Nina. Silvia, for example, did not have a nanny/cleaning lady. "Having a stranger in the house, I don't like that." And she does not expect her husband to help with the housework, not now or then, she says:

"He works in the field all day and gets home tired. My sons help, especially the oldest. He cooks now, cleans and is very good with her younger brothers. I can rely a lot on him, but in any case, I think women should only work part-time."

This last comment refers to the inequality generated by women joining the labor force, although it has been liberating in terms of stepping outside of the private sphere and having direct access to money, it has also created an extra burden for them. The extent to which men 'help' in the household does not compensate for the women who work full time. Similarly, the women who do not work, or do not work full time feel that they should, especially now that it is becoming the norm. As mentioned in the literature review, it is more difficult for women to join in the labor force. Not only do they start from a disadvantageous point being the subordinated gender, but there also seems to be negative conceptions regarding female employment. Although it is not shown in Nina's

narration, I heard this from four female informants who agree that women are more difficult to work with. Lina (29, administrator) who works in human resources says:

“I feel bad to say but they cause more trouble. There is gossip and envy between them. You cannot compliment one without offending the other, or correct a woman without being a big deal. I handle staff and that is why I say so. It is my experience (...). And you also have to deal with maternity leave, find a substitute, teach and train them. Or their kids get sick, so many different things. It is just easier to work with men in general terms. But I know it is unfair, and it is hard to say it.”

A possible explanation behind the first part of this comment, and the fact that it is agreed upon by others is that women (or some women) may feel less secure, confident and stable in their work than men do. Their place in the labor market is new, and they may feel the pressure to prove themselves and succeed over others in a competitive sector. This might be channeled negatively in some cases, as Lina exemplified. The second part is to do with legislation and structural constraints. When it comes to parental leave, mothers get 90 days and men get only two. This challenges the pursue of gender equity in multiple ways. Maternity leave is important, but so it is paternity leave, not only for men to spend quality time with their children but also to balance the gender roles in the social relations of the family structure, the labor sphere and by extension in society at large.

Furthermore, there is the issue of gendered spheres and the difficulties women have in entering traditional male domains. As we heard from Nina, agriculture is still mainly a men's territory, both in the countryside and in town. There are cases of female farmers working side by side with their husbands in horticulture and animal breeding, or doing part time agriculture with greenhouses and the marketing of conserves. However, there are no women who take part in agribusiness. In addition to this, their representation in agricultural institutions, though better than before, is still unbalanced. Spontón, director of the regional division of the National Institute of Agricultural Technology (INTA) explains that the representation of women in the organization is limited, but that it is increasing as women have more specialized degrees. “There are many working in the laboratories, designing and implementing projects and doing research.” Moreover, Diana (28, accountant) works in the cooperative UAA and she says “You only see men and [female] secretaries over there.” As mentioned, the cooperative has ‘Women

groups.’ These groups were created to capacitate women in the agricultural sector. However, the trainings revolve around traditional female tasks except for few workshops on finance and management. The courses mostly revolve around keeping the family orchard, producing for family consumption, health and nutrition, helping their husbands in production, and encouraging their children to work within agriculture.

However, others sectors are opening to female representation. As opposed to before, nowadays women hold relevant positions in the municipality. Four out of the ten municipal directors of the governmental divisions are women. The secretaries of finance, education, human development, and youth are run by women. One of them is Adriana and she explains that the position is given by merit, through public application. Understandably, female representation and participation in powerful positions is an important step to break the unbalanced power relations determined by gender in the political level.

6.2.2 Sexuality and procreation

This domain can be examined by referencing to the process of secularization previously mentioned. The next-generation informants do not follow the religious mandates rigorously. Only two of them attend mass, and not on a weekly basis. There was a mass held on the day of Santa Cecilia’s patron saint, but it was attended mostly by fifty-year olds or older. Evidently, the next-generation is not as exposed to the Catholic discourse as their parents were. Although some ideas remain, the discourse which contains male and female symbolism contributing to, and reinforcing the subordination of women in different levels, is not as present as before. This might help explain some of the changes observed within this domain. In 1988 there were no gringo couples living together without being married, and there were no single parents either. Today the situation is different. Three of my informants cohabitate with their partners. The first is Juan (25), who has a daughter and has not thought about getting married yet. “We have so much going on now, and weddings are expensive.” The second is Lucia (39); she also has a daughter and she says that does not want to get married, despite the insistence of their parents. The third is Diana (28), she lives in a house their parents bought as an investment in Avellaneda town, and her boyfriend moved in the house last year, despite her parents’ disapproval. She says:

“I didn’t ask my parents for permission. They would have said no anyway. They tell me here and there that I’ve made a mistake, but I don’t think so. I don’t really care. We pay them rent. It is better to live together. We’ll get married when we want to, if we want to. For now it is OK.”

Two other changes in practice and ideas are in terms of contraceptives and virginity. Conventional birth control methods (namely the pill, the IUD and condoms) have replaced the ‘Catholic-approved’ ones (interruption of coitus, the rhythm method, internal temperature and monitoring of vaginal secretions), and there is no longer a sense of guilt in using them. Although pre-marital virginity is not the issue it was before, my informants explain that sexuality is not to be taken lightly, as it can be physically and emotionally dangerous to do so. Without going into personal details, they refer to diseases, unwanted pregnancies or getting hurt by ‘trusting the wrong person’ or by ‘going too fast.’ These comments fall on the women’s side, as they are the ones affected by an unwanted pregnancy. Moreover, since men have more cultural freedom to experience their sexuality, they do not need to worry about getting their feelings involved, and they rarely link sexuality with trust. In essence, this indicates that the control of women’s sexuality, although to a lesser degree, is still in place among the younger members.

I do not have direct information in terms of fidelity. However, while commenting on a popular telenovela about a young married woman who committed adultery, the younger group seemed to agree that infidelity on the part of women is not as rare as before. Eduardo (33, farmer) says “Today you [women] are worse than us.” Pablo (35, farmer) agreed, but Lili (25, architect) interfered: “Not worse. That is why it is a big deal and they make telenovela about it. With a man, it would be an episode, a twist in the story.” Furthermore, there seems to be more understanding and acceptance in terms of homosexuality. Although it is somewhat of a sensitive subject, it is not seen as a ‘disease’ that can be prevented. Rather, it is conceived as a preference of lifestyle in which both biological and external factors play a role. One of the informants referred to the comments made by the Pope (who is from Argentina) opening the church to the LBGT community. Lucia (39, teacher) said:

“There used to be so much gossip. Criticize this and that. Living in a colony where everyone knows everyone creates that atmosphere. It is

better in town. If you are homosexual, this or that. If you don't do any harm then, as the Pope said, 'who am I to judge?'"

An area in which the influence of religion may still be present is in their views on abortion. My informants disagree with the legalization of abortion, some even when it concerns pregnancies resulting from rape. This issue is not as controversial in Avellaneda as it is in the rest of the country. For instance, there was a national march protesting the conviction of a young woman who had been sentenced to seven years in prison after an alleged abortion. However, Adriana explains that no one in Avellaneda was interested in taking part, given the religious background of the community. Furthermore, there are several campaigns and ongoing 'hash-tag' trends on social networks in terms of gender equity and against gender violence, which are shared, commented on, and discussed among different people. But there seems to be consensus in that it is immoral, unethical and it should be illegal to terminate a pregnancy.

On another note, the ideal number of children went from 3.5 to 2. Women want to have children before they turn 32 or 33 whereas men seem not to think so much about it, although some men mentioned the age of 35 or 38. Finally, additional 'old' ideas remain. It is still frowned upon to date outside their ethnic/class groups, fidelity is important for both men and women, and some believe it is harder for men to control their sexual impulses than it is for women, or that men need more sex than women do. Although on that note, both Diana (28, accountant) and Lina (29, administrator) said that there were excuses made by men to justify their misbehavior.

6.2.3 Power and authority

The domain of power and authority can be analyzed in three different but confluent levels. The first is the role of large social institutions such as politics, education and religion. The second is in terms of access and control of resources and the third is in terms of every-day practice and social relations. For instance, women's right to their inheritance is now fully respected; they are not just dependent on their future husband's inheritance. Moreover, the next-generation women and their peers work and administrate their own money. Those who are married or cohabitate share household expenses and make economic decisions together. Most couples use a common fund

where salaries go and it is used to pay common and private expenses, Lina (29, administrator) says:

“When we buy clothes or things for us we try to make it balanced, and we don’t spend money in what we don’t need (...). Everything goes to the house we are building.”

This has widened the ‘room for maneuver’ in their everyday practices, but for those who have started their own family it also represents a burden as there are no significant changes in the men’s role in the domestic sphere. They are expected to help, be more present and involved in the household, but the extent to which this occurs varies and depends on the ideas and actions taken by both men and women. Furthermore, there are other issues in terms of pay equity and their lack of access to some sectors (agricultural, industrial), as well as to managing positions. All informants expressed that disagreements are solved together, and that there is not one person who has ‘the last word.’ However, as it was done before, women and men use strategies to influence decisions and their partners’ behavior, as well as to resist others’ authority. This is done both by direct and indirect comments and actions. On this note, resistance against the patriarchal system is evidenced, as some of the younger members act despite the opinions of their parents such as those who cohabit outside marriage, Eduardo (33, farmer) explains:

“Now you see that women talk back to men and children talk back to their parents. I remember before we just couldn’t do that. We did what dad said. Now there is more discussion and give and take; between my siblings and parents, mom and dad, and all in the house.”

That said, however, additional perspectives on this domain are difficult to obtain from asking direct questions. As the theory of cultural hegemony explains, an important characteristic of the functioning of power is that part of it is not acknowledged or reflected upon, as it is rooted in everyday practices and cultural values and ideas. To explore this I refer to the issue of gender-based violence. Although this was not central in the interviews, and I do not have information of direct experiences, it was a recurring theme in the local news, and a topic of conversation among my informants, giving insight on some of their ideas.

One day there was the news of a twenty five year old woman who had been killed in the streets of Buenos Aires. The culprit was at large, and little was known about the crime. However, the reporters spent significant time talking about it and showed the picture of the victim several times. In the picture, the woman had a slightly deep-cut dress. This sparked a debate between Lili (25, architect) and her mom Maria (58). Maria was upset about the media using that particular picture, while Lili disagreed: “What difference does it make? It is horrible. Nobody is going to think any differently because of a dress.” Her mother replied that the problem lied in the recurrence of it. “They always find such pictures!” This went on for half an hour and I found it interesting. I believe the discussion references the idea that women are to be responsible for maintaining morality and that they are to be careful of not enticing or aggravating men. This was the case among the gringos of Santa Cecilia in the 1980s, which might help explain the mother’s reaction, whereas Lili did not see the connection between the picture and an underlying tendency of blaming women. Moreover, there was the report of two women who had been assaulted and killed while travelling ‘alone.’ This sparked a national debate questioning the ways the news are reported and assimilated by the public, in the sense that both reflect gender-biased cultural ideas.

Such empirical data contributed to the understanding of the outside-inside dichotomy. Evidently, next-generation women are no longer house-bound as they were in the 1980s. Living in town, being employed and the changing world have enabled women to take part in the public sphere. However, they recognize that there are limits to their possibilities: to be safe, women are to avoid traveling alone (read, without men), and be extra careful at night. This, at the same time, also indicates improvements. Other than the cases mentioned above, women are free to go as they please. In general terms, there is no asking permission, or feeling remorse for attending social events and leaving the kids (and/or) their male partner at home. Understandably, however, they still hold their home and family as a priority. Similarly, women feel they have the right and authority to ask their men to spend more time at home, as opposed to as how it was years ago. Finally, although it is harder for women to occupy managing positions, the fact that they now take part in public, private and political institutions is a significant improvement.

There are also changes needed in benefit of men and thus of gender equity in general. An important one is paternity leave. As said, in Argentina, men only get two days. This

is one of the lowest paternity leaves in the region. Moreover, if the baby is born on a Friday the days do not apply (Centro de Implementación de Políticas Públicas para la Equidad y el Crecimiento 2016, 4). Finally, an awareness on the issues of gender inequality is seen in the commentaries of both men and women, although mostly women. Part of it can be explained through the role of the media, the news, TV shows, talk shows and social networks. Although in some cases the media can be seen as a double-edged sword: it contributes to reproducing cultural ideas of gender, similarly, it brings forth the discussion on gender roles and gender inequality. For instance, the topics of pay equity, household chores, reproduction rights and gender violence were often referred to in different communication channels.

7 Discussion

This chapter presents the analysis of the findings in the light of the theory used.

On agricultural change

We have seen how different social actors have responded to the introduction of the GM crop, and how they relate to biotechnology. Farmers were encouraged through different channels to adopt the RR soybean, and they were given advancements on the technological package (composed by the seeds and agrochemical RoundUp) to be paid after the harvest. Given the facilities provided to access the new technology, as well as its advantages in increasing productivity by reducing labor costs and effort (particularly due to the no-till method), farmers were very optimistic about the GM crop, and decided to adopt it. However, the machinery and export tax linked to GM soya required up-scaling agricultural production in order to remain competitive and profitable. This led to the need of more arable land, which few farmers were able to access, particularly since the government does not offer credit facilities for agricultural production. Consequently, although most farmers tried to take advantage of the opportunity, few have been able to benefit from the technology.

The combination of these factors has generated significant socioeconomic changes in the community. The introduction of GM crops in Santa Cecilia contributed to a new turn in the rural exodus trend that caused the loss of community life. The trend, which had started with the mechanization of agriculture, was exacerbated as biotechnology allows farmers and investors to execute and monitor the production cycle without having to live in the countryside. This factor, added to the need of more arable land and the advantage some actors had in accessing it, led to the disappearance of family farming in the colony. Given that there were farmers who had too little land and were not able to make the passage, as well as actors who hold their land as investment, means that there is land available for other farmers to rent and upscale their production. Because of these factors, the structure of nuclear family farming has been replaced by the consolidation of agribusiness, a production model which few farmers succeeded in transitioning to. There are many farmers who left the colony and the agricultural sector, and very few who continue to live and work in their farms. Among those who remain,

only one couple is younger than fifty years old. Although there are disproportions in terms of majority and minority (as in the majority left the colony and the agricultural sector), the GM crop has been assimilated by the farmers in different ways. The varied cases relate to the theory explored. They indicate that actors respond to social discontinuities according to their prerequisites and to their lifeworlds, affecting their outcomes at individual and local contexts (Long 2001, 61-63).

With this in mind, I draw on the actor-oriented approach to reflect on the actions and strategies implemented by the farmers, and the factors that contributed to the ending results. As mentioned, actors respond to social discontinuities and new opportunities depending on, and recurring to, three elements: power, knowledge and agency (Long 2001, 16). Evidently, an important factor in terms of farmers succeeding in the passage to agribusiness is kinship and favorable family composition in terms of gender. Those who cultivate 1000 hectares or more do so by pooling resources among male relatives. The best example, and the most successful transition, is the enterprises composed by the Martini brothers. This correlation is understandable given that business-oriented agriculture has always been men's responsibility in the colony. By joining efforts they addressed the changes with better economic and human capital. This follows that their success can be partly attributed to their startup capital in the form of land, as well as human capital in terms of their kinship, combined labor, knowledge, experience and network. However, resources alone do not suffice to respond to new or problematic situations: they are to be channeled towards the desired results. As the approach indicates, resources are used as actors rely on their knowledgeability, and through the exercise of agency (Long 2001, 49). These farmers work hard throughout the years, both in the field and in their office. They keep themselves up to date. They learn about technological developments, production strategies, management and administration, and they constantly make business decisions in prosperous and challenging times.

The same can be said of the other farmers who also work hard and rely on their resources, knowledge and agency to assimilate the new circumstances in their best interests. Despite the structural changes, some farmers have been able to continue working in agriculture, and to remain relevant and profitable by engaging in other types of production. On this note, it is important to refer to the role of collective actors (Long 2001, 56). This is considered by examining the actions implemented by the

cooperative and the municipality to promote the agricultural sector, and to address some of the changes generated by the introduction of GM soya and the agribusiness model that it ensued. In this regard, Long (2001, 63) points out:

“Introduced technology can serve as a blueprint for an ongoing reorganization of farming so that the latter corresponds with the assumptions and requirements built into the technological design. But it can equally be deconstructed in order to be combined selectively with other more local elements, so that it fits better with existing styles of farming (...).”

Although the technology itself cannot be deconstructed, in the case of Santa Cecilia it has been combined with local techniques such as crop rotation and other forms of production including livestock, poultry breeding and horticulture. This is an advantage found in the local context, compared to the mono-cropping practice that takes place in other parts of the country. That said, however, in the case of biotechnology, Long's observation does not fully apply. Indeed, the technology reorganized farming (economy of scale, land concentration and delocalization) and yes, local actors employ strategies according to their lifeworld and context (capital, kinship, hard work and network connections). However, the local techniques and diversification in production are not enough to remain profitable in the sector. Therefore, the influence and effects that the technology and local actors have had is not equal. If it were, the extent of the impacts of GM soya would not be as great, both in the local and national level.

Despite the efforts taken by individual and collective actors to continue working in the sector and to revitalize the countryside, the concentration of production and rural abandonment represents the present and future of the colony. This is because local actors act within the constraints posed by external structures. Although Long (2001, 105) indicates that these are “in effect always mediated by local structures,” which follows that they can be influenced by local actors, they are also mediated by external forces. As we have seen, when it comes to biotechnology and GM crops, the additional forces are many, and they are powerful. First there is the natural environment: viruses, insects and plagues, the crops, the weeds, the soil, the weather, the water and other natural resources. Then we have to consider the global market and economic context. Furthermore, there are powerful actors: the national government, agrochemical multinationals, agribusiness corporations, sowing pools and external investors. All these

factors, forces and actors are interconnected and influence each other. Ultimately, the natural environment will prevail but after that and for the time being, based on the findings hereby presented and on the research consulted, the leverage lies on the powerful actors. As Winther and Wilhite (2015, 571) point out:

“New technologies require new solutions for organizing social life, triggering negotiations, conflict, and potentials for social transformation, but may also be used by groups in power to further strengthen their positions.”

The strategies and actions taken by powerful actors, the manners in which they employ their resources, make decisions and establish networks, have shaped the outcomes of the introduction of GM crops to a large extent. As presented in the literature review, this has created a form of biohegemony which is evidenced in the local context.

Biohegemony is found, as Newel (2009) indicates, in three forms of power. Material power is evidenced in the farmers’ struggles to access land, export quotas, as well as the difficulties associated with imported agricultural inputs in the economic recession. Institutional power is seen in the influence of special interests, favoring corporations, sowing pools and other powerful actors over farmers and the lack of representation local actors have in political institutions. Discursive power is seen in the promotion and assimilation of GM crops as a driver of national and individual progress. The farmers and the cooperative only perceive the benefits of biotechnology and many are dependent of GM crops, even those who did not adopt the crop as they rent their land to others who do. Farmers mainly place the blame of the negative consequences on the government and its agricultural policy, and they are right, to some extent.

Ideally speaking, laws could be implemented that ensure and enforce environmental protection and promote social justice. Difficult as it may be, the government has the authority to manage deforestation, halt processes of land concentration and to establish a taxation system that corresponds to income, property and production levels. However, given that actors are driven by their interests and they employ strategies to act accordingly (Long 2001, 39), this requires that the personal interests of multiple actors – at national and provincial levels– be the pursue of environmental protection, sustainability and of social equity. This is, needless to say, unfortunately not the case. The same applies to the other powerful actors in the picture, the agrochemical corporations which, being the developers and marketers of the technology, have their

interests in making profits and channel their actions thusly. Finally, as Standal and Wintther (2016, 32) state “the influx of technology needs to be understood as interventions in a space of social relations.” With this in mind, the effects of the introduction of GM soya and the agribusiness model that followed on social relations are examined below.

On inter-ethnic relations

The sense of superiority among the gringos is still present thirty years later. However, this is no longer directly explained from ethnic or religious standpoints. Although the topic of criollos was brought up in multiple situations and on a daily basis, there was no reference made to the criollos’ skin color, or to their ‘hot blood.’ Understandably, obviating the topic may be a conscious decision, however, when I asked the next-generation about their thoughts on the ‘hot blood’ idea, they simply shrugged and did not seem to give much consideration to the subject. Moreover, gringos do not follow the Catholic principles as their parents’ generation did. Therefore, my informants do not question the morality of the criollos for being single parents, cohabitating outside marriage and not attending church. The sense of superiority is now justified within the ‘culture of work’ notion, with which the informants identify with. The gringos’ culture of work is evidenced in their strategies, resilience and adaptability in difficult situations, although it is also facilitated by their varied resources.

In their eyes, the criollos are in unfavorable conditions because they lack drive and responsibility, both in working and in planning their future. This corresponds to Gramsci’s theory of cultural hegemony (Gramsci 1971) which explains that power relations are constituted in ideas and values, and thus sustained through consent and legitimation. At the same time, however, there is a change in the sense that they recognize that criollos are not solely to blame. The gringos acknowledge the role of other forces, which affect the possibilities, upbringing and behavior of the criollos. For instance, in the informants’ criticism of the national subsidies, lack of investment, as well as by referencing to what criollos ‘do not learn at home,’ they indicate their understanding of the lack of resources, opportunities and the limited room of maneuver criollos have as social actors (Long 2001, 17). This seems to inspire a paternalistic

attitude on some of the informants, as they express their concern and their desire to help the criollos overcome these limitations.

Furthermore, although the houses in Santa Cecilia and some of the training programs improved the living conditions of the criollos from the colony, there are other elements that prevent changes at the level of practice, ideas and in the state of power relations among the two social groups. Arguably, the subsidies combined with low quality public education and lack of investment in the rural areas have created a 'poverty trap.'

Criollos are dependent of the government to meet their basic needs, and have few to no options in getting a decent job and joining the middle class. As Long (2001, 261) indicates, part of the failure of development strategies in addressing the issue of poverty lies in regarding social actors as mere beneficiaries of aid. This is aggravated and facilitated by the deregulation of the financial market through neoliberal policies. As Lende (2015) and Leguizamon (2013) explain, powerful actors such as local and external investors and corporations are the main economic beneficiaries of the GM crop. Although part of the revenue generated by GM soya has benefited the marginalized population through the subsidies, its impact is limited by only covering basic needs and not providing opportunities for development.

My informants are aware of the influence and economic gains powerful actors have had, however, they do not see nor are affected by their role on a daily basis. They rarely mentioned it; it was often my questions that raised the issue. Conversely, I rarely asked about the criollos outside the interviews, yet comments and perspectives on them are found all over my fieldwork diary. Understandably, the lifeworlds of gringos are connected to the government and the poor (the criollos), and consequently their attention and irritation is directed at them. Finally, there is an additional, and in my view, aggravating impact of the GM crop in the state of inter-ethnic relations. Now, added to a sense of superiority, the informants show a sense of resentment towards the criollos for being beneficiaries of national and local programs, whereas little is done in the favor of gringos, despite the difficult situation many of them are facing and the importance of the agricultural sector for the national economy.

On gender relations

The consolidation of agribusiness has reinforced the lack of participation of women of the agricultural sector. No women take part in this type of production. The consequences of this system affected local actors in different extend. Arguably, women who come from a subordinated position in the first place are more negatively impacted than men, especially now that they are expected to join the labor market. As the agribusiness model drives farmers out of the farm, work competition increases, affecting the vulnerable the most. That said, however, the increased availability of education and the opening of the labor market has created structural opportunities for them to adapt to the changes. Moreover, women, as men, take an active role in confronting challenging situations to the best of their interests. The roles of the cooperative and the municipality as collective actors have also enabled some to work independently, and access other means of income. With this in mind and in the context of the changing world, some progress in terms of gender equity has taken place. Based on Giddens (1984, 171), it could be said that changes in practices embedded in the new social context have modified the reproduction of important structural constraints, namely the small money/big money and the inside/outside dichotomies. They have weakened. Women have access to money and property and, in general terms, they have more facilities to come and go as they please without asking permission, depending on transportation, offending their partners or being scrutinized by social gossip. Furthermore, men are more involved in the family and household and important decisions are often reached through mutual discussion and agreement. However, as Stølen (1996a, 14) explains:

“Changes in behavior do not necessarily lead to changes at the level of ideas. Behavioral changes may also be strategies to preserve basic elements of life-style or traditions, only modified to adjust to new circumstances.”

I believe this is mostly the case for the women of the older group. They seemed more concerned in maintaining the pre-established order in which women are the ‘queen of the house,’ and thus adapted their resources and strategies to combine paid work without sacrificing their traditional domestic role and responsibility in maintaining the functioning of the household. This is an important driver of the inside/outside dichotomy and of the structuring of power relations in terms of gender. Women’s role in

maintaining a traditional household and family order is seen as determinant in the shaping of society and in the reproduction of its culture. Consequently, women's role in this sphere is resilient to change. This can be partly explained based on the working mechanisms of habitus, as the traditional household structure is unquestioned by actors, independent of the varied and significant socioeconomic changes that have taken place. As Ortner (1974, 84) indicates:

“Any culture's continued viability depends upon properly socialized individuals who will see the world in that culture's terms and adhere more or less unquestioningly to its moral precepts. The functions of the domestic unit must be closely controlled in order to ensure this outcome; the stability of the domestic unit as an institution must be placed as far as possible beyond question.”

The ideal household still is composed by a nuclear family. However, women of the younger group were more concerned in challenging their role as the only ones responsible of keeping the stability of the home, though this is dependent on their employment situation. Similarly, Juan (25), Pablo (35) and Eduardo (33) all disagree with the idea that ‘chaos reigns’ when there is no woman in the house. They say that for the time being, they can take care of themselves, their chores and their households. This, however, might change if and when they expand their families in the case of Juan, or have children in the case of the other two. Moreover, the topics of gender roles, relations and power structure are not discussed in schools through the subject of sexual education, despite the information found on the ministry's website (Ministerio de Educación y Deporte 2015). Adriana, the director of human development, explains that emphasis is given to sexually transmitted diseases and unwanted pregnancies, and that little space is left for covering these issues. However, the female informants show more social knowledge and reflexivity in terms of gender inequality in comparison to their parents' generation. Arguably, this has contributed to changes in behavior as well as how they see themselves in relation to men. This is evidenced at the level of practice and ideas. For instance, both parents are to take part in child rearing, and men are expected to contribute to household tasks. This can further promote cultural change. As it was indicated in the theory chapter, one of the key elements in the reproduction of social structures is that its effects and mechanisms are not challenged or questioned by individuals (Bourdieu 1977). Thus, the acknowledging of male dominance, as referred to by most of my female informants, can help explain some of the difference between

the younger and the older group. Understandably, the socioeconomic changes that have taken place affected the older group in the first place, and as they started challenging practices, they have paved the way for the following generations. At the same time, however, these gains have not come without additional costs. In the farms, women's productive role was undervalued or disregarded. In town and in this day and age, it is expected. No matter how resourceful actors are, it is still difficult to combine the new role of working women with the domestic responsibilities associated to the female gender. This is the case especially since the changes in men's roles –in the sense that they are expected to help– do not compensate the responsibility women have in joining the labor force. Furthermore, despite the process of secularization, an increase in sexual education and the acceptance of modern birth control methods, the notion that women's sexuality is to be controlled is still in place. This is another key driver of female subordination found across time and in different cultural contexts (Ortner 1974, 85). It is embedded in common sense ideas such as 'women are the ones affected by unwanted pregnancies thus their sexuality is to be controlled' and deep cultural values such as those that oppose the legalization of abortion. These elements enable the presence and recurrence of female subordination through cultural hegemony. Therefore, despite the changes that have occurred and the weakening of the gender relation dichotomies, male dominance is still present in the next generation.

However, as Appadurai (1996, 54) indicates, the role of mass media has been influential in bringing other worldviews and challenging cultural reproduction. Raising awareness of the issues could continue to lead the mobilization in demand of changes at the structural level. For instance, legislation on pay equity, female employment quotas, reproductive rights and adequate paternity leave would level the field in several domains of gender relations. In essence, as Ortner (1974, 87) points out, the issue of female subordinations is to be addressed in the varied spheres where it is grounded: from simple practices and deep rooted ideas, to everyday tasks and in the implementation of relevant policies and legislations. Arguably, the same could be said for social justice. Important steps are changing the everyday discourse surrounding poverty, recognizing how structural forces shape the opportunities and outcomes of individuals, and by demanding more equitable distribution of economic and cultural capital through fair taxation, the re-investment on significant social programs (rather than subsidies) and accessible quality education.

8 Conclusion

In this thesis I have revisited the past by looking into Stølen's description and analysis of agricultural production and the social context in a farming colony located in northern Argentina. This was done in order to follow the thread of a longitudinal research, and to examine the impacts of the introduction of GM crops in the community and on its people, particularly in terms of farming and social relations. Initially, these subjects were studied 'from below,' by focusing on the perspectives, experiences and responses of local actors. However, once patterns were identified, these were located and contrasted within the larger context. To accomplish this in a systematic manner, I implemented the guidelines of the actor-oriented approach. In addition to this, I consulted from a theoretical perspective the notions of identity, gender and power, given their importance in the understanding of social relations. Similarly, before addressing the local context, relevant information was provided on biotechnology, as well as by briefing the state of social institutions and gender relations at the national level. This was included in order to rely on existing research and additional sources, and as a backdrop, considering the time that has passed, and the changes that have occurred in the years between Stølen's and this current study.

During fieldwork, primary data was collected through semi-structured interviews (some of which turned into life-history narrations), observation, and the recording of events, information and ideas in a fieldwork diary. Following the next generation of gringos and counting with Stølen's informants proved very beneficial for the research, both in terms of conducting a longitudinal study and in facilitating the process. The findings were presented in two chapters and the analysis was conducted based on the theory and concepts consulted. I showed how the farmers relate to the technology, the strategies implemented to adopt it, and the varied outcomes that have resulted. In the beginning, the farmers embraced the GM soya. However, few were able to benefit from its advantages, though others get income from renting their land to those who were able to upscale production. Farmers rely on the GM crop, and remain optimistic in terms of biotechnology. They explain that what is necessary to improve their individual situation as well as to address the concentration of power in the agribusiness system, is changes in the agricultural policy and investment in the rural sector. Moreover, the findings illustrate how the introduction of GM crops affected important aspects of social

relations, given the elements associated with the technology, as they contributed to urban migration and unemployment. These changes have both brought advantages and disadvantages. For the gringos, the positive aspects include that living in town is more comfortable, technology has facilitated agricultural labor, and the women of the younger generation are not tied to the farm. The disadvantages are that few were able to make the passage to agribusiness and many had to leave the sector and find other ways to mend off. This also affected the criollos, as they lost their job as picketers. This job however, did not provide them decent living conditions, nor did it allow them to leave poverty. The same occurs with the system of national subsidies which cover some of their basic necessities but do not represent real development. Moreover the subsidies have created more tension in the state of inter-ethnic relations, as gringos resent the subsidies and worry about their implications in the shaping of society. Understandably however, inter-ethnic and gender relations have also been influenced by factors unrelated to the GM crops, which were also explored in the previous sections.

As seen in Stølen's (1996a) and this current research, the informants' perspectives and actions evidence that actors have the ability to adapt to social discontinuities in their best interests. Their room of maneuver however, is limited by varied constraints: these are both concrete such as resources, and abstract such as ideas and values. The introduction of GM crops led to an agribusiness system. This system is embedded in – and reinforced by– a national agricultural policy that disregards different contexts and their effects on production and profitability. Consequently, in general terms, agribusiness contributes to social inequality by enabling the concentration and monopolization of land, resources (natural and material) and wealth. This is evidenced in a smaller degree at the local level, given that colonos hold on to their land, rent it out and do not sell it unless they have to. Regarding the criollos, although part of the revenue collected from export taxes is used to fund social subsidies; these programs do not offer real possibilities for progress and do not provide the necessary tools to overcome poverty. Furthermore, a dependency on GM crops is found across actors, from local farmers to the government itself. The government's inaction in regards to the social and environmental problems associated with the GM crop can be due to its reliance on revenue resulting from export taxes. An additional reason is found given the confluence of different forms of material, discursive and institutional power, which have established a form of bio-hegemony (Newell 2009).

Based on the above, it could be said that promoting biotechnology as a tool to address inequality, food insecurity and ecological threats is disingenuous at best; especially when there is a growing body of research showing the effects of agribusiness in exacerbating inequality and environmental degradation. A technological fix, no matter how sophisticated or promising it is, does not address the structural and cultural issues that cause the problems in the first place. This does not deny the importance of human ingenuity and technological development, however, based on the theory explored, the technology should not be developed solely by private commercial interests, given their control over it and their influence in re-structuring agricultural production. Moreover, in principle, the technology should not have as one of its main purposes the upscaling of production and maximization of profit at the expense of natural resources.

Furthermore, inherent in the development and application of biotechnology is the long lasting attempt of humanity to exercise control over nature. This pursuit, though it has been beneficial in multiple ways, has also led to significant social and environmental problems. This both reflects and reinforces the conception of our identity, of how we as a species see ourselves in a dominant position in relation to the natural world, almost failing to recognize that it is us who are part of, and subordinated to nature, and that undermining its prevalence is jeopardizing our very existence.

“Trying to control the whole of nature is futile and wrong. Our challenge is to manage ourselves as responsible members of an ecosphere that includes diverse species, communities and unique individuals who deserve our respect” (Naess, Drengson and Devall 2008, 27).

With this in mind, the issues lie in facing unquestioned everyday ideas, values and practices that contribute to the reproduction of existing states of power relations in terms of ethnicity, class and gender. The discussion of these issues and how to address them is an ongoing process that takes place across levels; from the academic sphere and international organizations, to grass-roots movements and individual actors. Both progress and stagnation can be identified in different contexts. Evidently, changes in practices and ideas, and the re-structuring of unbalanced and unsustainable economic and political policies is a significant challenge considering that the present and the future are largely determined by the past (Bourdieu 1977), and that social change often results from unintended consequences (Ortner 1994).

It could be said that one of the first steps is for actors to realize and acknowledge that it is not only fair but it is in our best interests to challenge the state of power relations and to pursue gender and social equality, and to protect the natural environment of which our livelihood depends on. Yet, every day, to varying degrees, we engage in practices that go against these goals, and we rarely hold those in positions of power accountable for their actions, or lack thereof. I believe that the demand of true democratic participation in political institutions, and the promotion of sociological and anthropological knowledge are an important start. Understanding how the social world is constituted and reproduced, as well as how individuals act, relate and are affected by it, is the first step in making that which is not questioned, questioned, and thus potentially changed for the better.

The wider relevance of this research is that it sheds light on the elements that enable and hinder social change, this is mainly because the study was conducted based on a longitudinal study and it examined the issues through a holistic and historical perspective. Finally, these findings further corroborate the importance of understanding the prerequisites of local actors and the characteristics of their social context in order to improve the chances of developmental strategies, and of generating positive change when it comes to improving the issues of social and gender inequality.

References

- Allard, Robert. 1999. *Principles of Plant Breeding*. New York: John Wiley and Sons.
- Altieri, Miguel. 2009. "La Expansión de los Monocultivos." In *Azúcar Roja, Desiertos Verdes*, edited by María Silvia Emanuelli, Jennie Jonsén and Sofía Monsalve Suárez, 55-63. Estocolmo: FIAN Internacional.
- Appadurai, Arjun. 1996. *Modernity at Large: Cultural Dimensions of Globalization*. Minneapolis: University of Minnesota Press.
- Arancibia, Florencia. 2013. "Challenging the Bioeconomy: The Dynamics of Collective Action in Argentina." *Technology in Society* 35 (2):79-92. Accessed September 10, 2015. doi:10.1016/j.techsoc.2013.01.008.
- Archetti, Eduardo, and Kristi Anne Stølen. 1975. *Explotación familiar y acumulación de capital en el campo argentino*. Buenos Aires: Siglo XXI.
- ArgenBio. 2015. "Gráfico de evolución de las superficies sembradas con soja GM en Argentina, en porcentaje y en hectáreas." Accessed September 20, 2015. <http://www.argenbio.org/index.php?action=cultivos&opt=5>.
- Ashkenazi, Marcela. 2011. "De Maternidad y Subjetividades." In *Adolescencia y Embarazo: Un abordaje integral* edited by Alejandra Giurgiovich, Silvina Raffa and Mercedes Peña. Buenos Aires: Ascune.
- Barsky, Osvaldo, and Mabel Dávila. 2012. *La rebelión del campo. Historia del conflicto agrario*. Buenos Aires: Sudamericana.
- Bernard, Russell. 2011. *Research Methods in Anthropology: Qualitative and Quantitative Approaches, fifth edition*. New York: Altamira Press.
- Biggs, Graham R. 2007. *Analyzing Qualitative Data*. Los Angeles: SAGE Publications.
- Bilenca, David; Codesido, Mariano; González, Carlos, Pérez, Lorena; Zufiaurre, Emmanuel and Agustín Abba. 2012. "Impactos de la transformación agropecuaria sobre la biodiversidad en la provincia de Buenos Aires." *Revista del Museo Argentino de Ciencias Naturales*, 14:189-198. Accessed April 10, 2016. ISSN 1853-0400.
- Bognar, Julia and Grace Skogstad. 2014. "Biotechnology in North America: The United States, Canada and Mexico." In *Handbook of Agriculture, Biotechnology and Development*, edited by Stuart J. Smyth, Peter W. Phillips and David Castle, 71-68. Cheltenham: Edward Elgar.

- Bourdieu, Pierre. 1977. *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
- Bourdieu, Pierre. 1990. *The Logic of Practice*. Cambridge: Polity Press.
- Brown, Josefina Leonor. 2004. "Derechos, ciudadanía y mujeres en Argentina." *Política y cultura* 21 (2):111-125.
- Bull, Benedicte and Mariel Aguilar-Støen. 2016. "Changing Elites, Institutions and Environmental Governance." In *Environmental Governance in Latin America*, edited by Barbara Hogenboom; Michiel Baud and Fabio de Castro, 137-163. New York: Palgrave Macmillan.
- Burgess, Robert G. 1991. "Sponsors, gatekeepers, members, and friends: Access in educational settings." In *Experiencing fieldwork: An inside view of qualitative research*, edited by William B. Shaffir and Robert. A. Stebbins, 43–52. Newbury Park: SAGE Publications.
- Bussey, Kay, and Albert Bandura. 1999. "Social cognitive theory of gender development and differentiation." *Psychological review* 106 (3): 676-687.
- Carbonelli, Marcos; Mariela Mosqueira, and Karina Felitti. 2011. "Religión, sexualidad y política en la Argentina: intervenciones católicas y evangélicas entorno al aborto y el matrimonio igualitario." *Revista del Centro de Investigación de la Universidad la Salle* 9 (2): 25-43.
- Cassidy, Emily. 2015. *Feeding the World without GMOS*. Washington: Environmental Working Group.
- Centro de Implementación de Políticas Públicas para la Equidad y el Crecimiento. 2016. *Documento de políticas públicas*. Buenos Aires: CIPPEC.
- Connell, Raewyn. 1987. *Gender and Power: Society, the Person and Sexual Politics*. Stanford: Stanford University Press.
- Convention on Biological Diversity. 2015. "Article 2. Use of terms." Accessed August 24, 2015. <https://www.cbd.int/convention/articles/default.shtml?a=cbd-02>.
- Creswell, John W. 2013. *Research design: Qualitative, quantitative, and mixed method approaches*. Thousand Oaks: SAGE Publications.
- El Economista. 2015. "El mercado interno respira, pero las exportaciones no." Accessed October 24, 2016. <http://www.eleconomista.com.ar/2015-11-el-mercado-interno-respira-pero-las-exportaciones-no/>
- Fetterman, David. 1998. *Ethnography Step by Step*. Thousand Oaks: SAGE Publications.

- Fitzgerald, Deborah K. 2003. *Every Farm a Factory: The Industrial Ideal in American Agriculture*. New Haven: Yale University.
- Foucault, Michael. 1981. *The history of Sexuality. Volume 1: An Introduction*. Harmondsworth: Penguin.
- Fox-Genovese, Elizabeth. 1982. "Gender, class and power: Some theoretical considerations." *The History Teacher* 15 (1): 255-276.
- Gadamer, Hans-Georg. 1997. *Philosophical Hermeneutics*. Berkeley: University of California Press.
- Garcia, Ana Rosa. 2013. "Feedlots and Pollution: A Growing Threat to Water Resources of Agro-Production Zone in Argentina." *Environmental science & technology* 47 (2):11932-11933.
- Giarracca, Norma, and Miguel Teubal. 2010. "Disputas por los territorios y recursos naturales: el modelo extractivo." *Revista ALASRU* 5: 113-133.
- Gibbs, Graham. 2007. *Analyzing Qualitative Data*. Los Angeles: SAGE Publications.
- Giddens, Anthony. 1984. *The Constitution of Society: Outline of the Theory of Structuration*. Cambridge: Polity Press.
- Giddens, Anthony. 1991. *Modernity and self-identity: Self and Society in the Late Modern Age*. Stanford: Stanford University Press.
- Gramsci, Antonio. 1971. *Selections from the Prison Notebooks*. New York: International Publishers.
- Gras, Carla. 2009. "Changing Patterns in Family Farming: The Case of the Pampa Region." *Argentina. Journal of Agrarian Change* 9: 345–364.
- Gras, Carla. 2012. "Cambio agrario y nueva ruralidad: Caleidoscopio de la expansión sojera en la región pampeana." *Trabajo y sociedad* 18:15-32. Accessed July 21, 2015. ISSN 1514-6871.
- Herrera-Estrella, Luis and Ariel Alvarez-Morales. 2001. "Genetically Modified Crops: Hope for Developing Countries?: The Current GM Debate Widely Ignores the Specific Problems of Farmers and Consumers in the Developing World." *EMBO Reports* 4 (1): 256–268.
- Hidrovo, Alvaro Javier. 2004. "Plaguicidas usados en la fumigación de cultivos ilícitos y salud humana: una cuestión de ciencia o política?" *Revista de Salud Pública* 16 (2): 199-211.

- Holloway, Immy. 1997. *Basic Concepts for Qualitative Research*. Oxford. Blackwell Science.
- Human Rights Watch. 2010. "Illusions of Care Lack of Accountability for Reproductive Rights in Argentina." Accessed August 13, 2015.
<https://www.hrw.org/report/2010/08/10/illusions-care/lack-accountability-reproductive-rights-argentina>.
- Ibarometro. 2015. "Cultura de Género en Argentina." Accessed November 4, 2015.
<http://www.ibarometro.com/newsite/wp-content/uploads/2014/10/Informe-Cultura-de-G%C3%A9nero-de-los-argentinos-2015.pdf>
- INDEC. 2010. "Censo 2010. Resultados." Accessed September 23, 2015.
http://www.indec.gov.ar/nivel4_default.asp?id_tema_1=2&id_tema_2=41&id_tema_3=135
- INDEC. 2016. "Tasas del Mercado Laboral." Accessed October 10, 2015.
http://www.indec.gov.ar/series_historicas.asp?id_tema_1=4&id_tema_2=31&id_tema_3=58.
- Infobae. 2014. "La Canasta Familiar" Accessed July 5, 2015.
<http://www.infobae.com/2015/01/08/1619615-subio-413-la-canasta-pobreza-capital-federal-2014/>
- Infobae. 2015a. "Las muertes maternas por aborto fueron 50 en todo el país en un año." Accessed September 13, 2015. <http://www.infobae.com/2015/03/06/1714322-las-muertes-maternas-aborto-fueron-50-todo-el-pais-un-ano/>
- Infobae. 2015b. "La Leche esta que hierve". Accessed on July, 24 2015.
<http://www.infobae.com/2015/07/26/1744170-la-leche-esta-que-hierve/>
- Kirk, Gwyn and Margo Okazawa-Rey. 2012. *Women's Lives: Multicultural Perspectives*. New York: McGraw-Hilled.
- La Nación. 2013. "Indec la máquina de la mentira." Accessed September 14, 2015.
<http://casos.lanacion.com.ar/indec-la-maquina-de-la-mentira>
- La Nación. 2015. "Produccion tierra del fuego." Accessed October 10, 2015.
<http://www.lanacion.com.ar/1854089-la-produccion-de-celulares-en-tierra-del-fuego-sumara-cables-y-cargadores-nacionales>
- Leguizamon, Amalia. 2013. "Modifying Argentina: GM soy and socio-environmental change." *Geoforum* 53: 149-160.
- Lende, Sebastian G. 2015. "El Modelo Sojero en la Argentina (1996-2014)." *Mercator Fortaleza* 4:7-25. Accessed May 20, 2016. doi:10.4215/RM2015.1403. 0001.

- Lewis, Herbert. 1993. "A new Look at Actor-Oriented Theory." *PoLAR: Political and Legal Anthropology Review* 16 (3): 49-56.
- Long, Norman. 2001. *Development sociology: Actor perspectives*. London: Routledge.
- Merriam-Webster. 2015. "Merriam-Webster Dictionary." Accessed October 24, 2015. <http://www.merriam-webster.com/dictionary/lifeworld>
- Miller, Kenneth. 2004. *Biología*. Massachusetts: Prentice Hall.
- Miller, Robert and John Brewer. 2003. *The AZ of social research: A dictionary of key social science research concepts*. London: SAGE Publications.
- Ministerio de Educación y Deporte. 2015. "Programa Nacional de Educación Sexual." Accessed August, 4, 2016. <http://www.educ.ar/sitios/educar/recursos/ver?id=107056>.
- Ministerio de Produccion. 2015. "Ahora 12". Accessed August, 4, 2015. <http://www.ahora12.gob.ar/preguntas.htm>.
- Ministerio de Trabajo, Empleo y Seguridad Social. 2014. "Indicadores más relevantes de la inserción de mujeres y los varones en el mercado de trabajo." Accessed May 4, 2015. http://www.trabajo.gov.ar/downloads/cegiot/140703_brochure.pdf.
- Ministerio de Salud. 2015. "Plan de investigación de agroquímicos." Accessed October 22, 2015. <http://www.msal.gob.ar/agroquimicos/>
- Moi, Toril. 1991. "Appropriating Bourdieu: Feminist theory and Pierre Bourdieu's sociology of culture." *New Literary History* 22 (4): 1017-1049.
- Mooney, Jayne. 2000. *Gender, violence and the social order*. New York: Macmillan.
- Moses, Jonathon W. and Torbjørn L. Knutsen. 2007. *Ways of knowing: Competing methodologies in social and political research, second edition*. New York: Palgrave Macmillan.
- Naess, Arne, and David Rothenberg. 2008. *Ecology, community and lifestyle: outline of an ecosophy*. Cambridge University Press.
- Naess, Arne; Drengson, Alan and Bill Devall. 2008. *Ecology of wisdom: writings by Arne Næss*. Berkeley: Counterpoint Press.
- Newell, Peter. 2009. "Bio-Hegemony: The Political Economy of Agricultural Biotechnology in Argentina." *Journal of Latin American Studies* 41 (1): 27-57.
- Nicholas, Walliman. 2011. *Research Methods: The Basics*. London: Routledge.

- Obschatko, Foti and Marcela E. Roman. 2007. *Los Pequeños Productores en la República Argentina*. Buenos Aires: Dirección de Desarrollo Agropecuario.
- Ortner, Sherry B. 1974. "Is female to male as nature is to culture?" In *Woman, culture, and society*, edited by Michelle Z. Rosaldo and Louise Lamphere, 68-87. Stanford: Stanford University Press.
- Ortner, Sherry, B. 1994. "Theory in Anthropology since the sixties." In *Culture/power/history: A reader in contemporary social theory* edited by Dirks, Nicholas B., Geoff Eley, and Sherry B. Ortner, 372 -411. Princeton: Princeton University Press.
- Patnaik, Pradyot. 2010. *Handbook of Environmental Analysis*. New York: Lewis Publishers.
- Pengue, Walter Alberto. 2004. Transgenic crops in Argentina and its hidden costs. Proceedings of IV Biennial International Workshop "Advances in Energy Studies 91-101.
- Plummer, Ken. 2004. *The SAGE Encyclopedia of Social Science Research Methods*. Thousand Oaks: SAGE Publications. doi:10.4135/9781412950589.
- Provincia de Santa Fe. 2015. "Parques Industriales." Accessed october 20, 2015. [https://www.santafe.gov.ar/index.php/web/content/view/full/160050/\(subtema\)/93793](https://www.santafe.gov.ar/index.php/web/content/view/full/160050/(subtema)/93793)
- Qualres org. 2008. "Interviewing." Accessed May 18, 2015. <http://www.qualres.org/HomeInte-3595.html>.
- Reboratti, Carlos. 2010. "Un mar de soja: la nueva agricultura en Argentina y sus consecuencias." *Revista de geografía Norte Grande* 45: 63-76. Accessed September 10, 2016. doi.org/10.4067/S0718-34022010000100005.
- Relyea, Rick and Devin K. Jones 2009. "The Toxicity of Roundup Original Max to 13 species of larval amphibians." *Environmental Toxicology and Chemistry*. Accessed September 10, 2015. doi: 10.1897/09-021.1.
- Reuters. 2015. "Commodities US: Soybean, corn prices seen dropping below production costs: industry." Accessed October 12, 2015. <http://www.reuters.com/article/us-us-grains-prices-idUSKCN0QW14420150827>
- Richardson, Neal P. 2009. "Export-oriented populism: commodities and coalitions in Argentina." *Studies in Comparative International Development* 44: 228-255.
- Rieger, Jon. 2007. "Key Informant." In *Blackwell Encyclopedia of Sociology*, edited by George Ritzer. Blackwell Reference Online. Accessed June 9, 2015.

http://www.blackwellreference.com/subscriber/tocnode.html?id=g9781405124331_chunk_g978140512433117_ss1-1

- SAGPyA. 2015. Ministerio de Agricultura, Ganadería y Pesca: Presidencia de la Nación. "Soja info campaña 2013/2014." Accessed May 20, 2015.
<http://www.agn.gov.ar/etiquetas-informes/sagpya>
- Schurman, Rachel and William Munro. 2010. *Fighting for the Future of Food: Activists Versus Agribusiness in the future of biotechnology*. Minneapolis: University of Minnesota Press.
- Sili, Marcelo and Luciana Soumoulou. 2011. *The Issue of Land in Argentina: Conflicts and Dynamics of Use, Holdings and Concentration*. Rome: IFAD
- Standal, Karina and Tanja Winther. 2016. "Empowerment Through Energy? Impact of Electricity on Care Work Practices and Gender Relations." *Forum for Development Studies* 43: 27-45. Accessed September 26, 2016. doi: 10.1080/08039410.2015.1134642.
- Stølen, Kristi Anne. 1996a. *The Decency of Inequality: Gender, Power and Social Change on the Argentine Prairie*. Oslo: Scandinavian University Press.
- Stølen, Kristi Anne. 1996b. "The Power of Gender Discourses in a multi-ethnic community in rural Argentina." In *Machos, Mistresses, Madonnas. Contesting the Power of Latin American Gender Imagery*, edited by Marit Melhuus and Kristi Anne Stølen, 159 – 183. London: Verso.
- Stølen, Kristi Anne. 2014. "Agricultural change in Argentina: Impacts of the Gene Modified Soybean Revolution." In *Emerging Economies and Challenges to Sustainability: Theories, strategies, local realities*, edited by Arve Hansen and Ulrikke Bryn Wethal, 149 – 161. London: Routledge.
- Tallman, Irving. 1986. "Social history and the life- course perspective on the family: A view from the bridge." In *The Social Fabric: Dimensions and Issues*, edited by James S. Short, Jr., 255-281. Beverly Hills: Sage Publications.
- Tedesco, Juan Carlos, and Emilio Tenti Fanfani. 2001. *La reforma educativa en la Argentina. Semejanzas y particularidades*. Buenos Aires: BID.
- Teubal, Miguel and Tomas Palmisano. 2009. "El Conflicto Agrario: Características y Proyecciones." In *Del Paro Agrario a las Elecciones de 2009*, edited by Norma Giaracca, and Miguel Teubal, 193-252. Buenos Aires: EA.
- Teubal, Miguel. 2009. "Expansión de la Soja Transgénica en la Argentina." In *Promesas y Peligros de la Liberalización del Comercio Agrícola: Lecciones desde América Latina*, edited by Mamerto Pérez, Sergio Schlesinger, and

- Timothy Wise, 73-91. La Paz: La Asociación de Instituciones de Promoción y Educación.
- The World Bank. 2015. "Inflation indicator." Accessed July 3, 2015.
<http://data.worldbank.org/indicator/NY.GDP.DEFL.KD.ZG>
- Torrance, Andrew W. 2007. "Intellectual Property as the Third Dimension of GMO Regulation." *Kansas Journal of Law & Public Policy* 16: 257-285.
- Unión Agrícola de Avellaneda. 2013. "Soja 2012/2013." Accessed September 20, 2015.
<http://www.uaa.com.ar/desarrolloagro/docs/prod-soja.pdf>
- Unión Agrícola de Avellaneda. 2015. "Quienes somos." Accessed August 5, 2015.
<http://www.uaa.com.ar/institucional.php?id=1>.
- UCES. 2015. "Tasa de Desempleo Nacional". Accessed September 12, 2015.
<https://www.uces.edu.ar/idelas-instituto-de-estudios-laborales-y-sociales/es/1187/idelas-instituto-estudios-laborales-sociales/>.
- Unión de Escuelas de la Familia Agrícola. 2015. "Nuestra Historia." Accessed October 10, 2015. <http://unefam.org.ar/nuestra-historia/>
- UNICEF. 2013. Accessed August 12, 2016. "Situación del embarazo adolescente en Argentina, en el día mundial de la población" <http://www.unicef.org.ar/>
- Universidad Nacional del Litoral. 2014. "Convocatoria universitaria centro de Reconquista y Avellaneda." Accessed September 12, 2016. http://www.cura.unl.edu.ar/pages/extension/proyectos.php?searchresult=1&sstring=convocatoria#wb_683
- Vara, Ana María. 2004. "Transgénicos en Argentina: más allá del boom de la soja." *Revista iberoamericana de ciencia tecnología y sociedad* 3:101-129. Accessed May 4, 2016.
http://www.scielo.org.ar/scielo.php?script=sci_arttext&pid=S1850.
- Varesi, Gaston. 2014. "El Conflicto del campo de 2008 en Argentina: Hegemonía, acumulación y territorio." *Geograficando* 10 (2). Accessed may 12, 2015.
<http://www.geograficando.fahce.unlp.edu.ar/article/view/Geov10n02a02>
- Varley, Ann. 1996. "Women heading households: Some more equal than others?" *World Development* 12 (3): 505-520.
- Walter, Pengue. 2005. "Transgenic Crops in Argentina: The Ecological and Social Debt." *Bullet of Science and Technology* 25:314-322. Accessed December 10, 2015. doi: 10.1177/0270467605277290

- Westbrook, Laurel. 2009. *Gendered Violence: Fact Sheet*. Michigan: Grand Valley State University.
- Winther, Tanja, and Harold Wilhite. 2015. "Tentacles of Modernity: Why Electricity Needs Anthropology." *Cultural Anthropology* 30: 569-577. Accessed September 10, 2016. doi: 10.14506/ca30.4.05.
- World Wide Fund for Nature. 2015a. "Estos son los lugares con más deforestación." Accessed May 12, 2015. [http://www.World Wide Fund for Nature.org.co/?245790/Estos-son-los-lugares-ms-amenazados-por-la-deforestacin-en-el-mundo](http://www.WorldWideFundforNature.org.co/?245790/Estos-son-los-lugares-ms-amenazados-por-la-deforestacin-en-el-mundo).
- World Wide Fund for Nature. 2015b. "Solving the soy problem." Accessed June 5, 2015. [http://wwf.panda.org/what we do/footprint/agriculture/soy/](http://wwf.panda.org/what_we_do/footprint/agriculture/soy/)
- World Wide Fund for Nature. 2015c. "Soy and climate change." Accessed June 5, 2015. [http://wwf.panda.org/what we do/footprint/agriculture/soy/impacts/climatechange/](http://wwf.panda.org/what_we_do/footprint/agriculture/soy/impacts/climatechange/)

Appendix 1

Interview Guide

- Background: age, education, occupation. Household/family structure: in countryside and in town.

Agriculture (Farmers):

- Hectares, location, crops. Other activities?
- GM soya: differences, advantages and disadvantages?
- Production cycle. Time, techniques, crop rotation?
- Labor, profitability, number of employees.
- RoundUp/Glyphosate, other agrochemicals, seed royalties and dependency, expansion of the crop.
- Tax and regulations. Influence of powerful actors (politicians, investors, corporations).
- Agricultural policy?
- Incentives for production?
- Role of the cooperative in finance, commercialization and production?
- Santa Cecilia after the introduction of GM crops.
- Working without GM crops?

Inter-ethnic relations:

- What do the criollos do now? Where do they live? Who do they live with?
- What type of interaction do you have with them?
- Differences in Avellaneda and Santa Cecilia?
- Are they religious? Do they have ‘hot blood’?
- What do they think of you/gringos?
- What can be done to improve their situation?

- Primary, secondary and tertiary education.

Gender relations:

- Childhood in the farm: family, tasks, rules and responsibilities.
- EFA. Opinions and perspectives, special subjects. Division by gender?
- Sexual education at school: topics, do they discuss notions on gender and power relations?
- Tertiary education: career programs, economic support?
- Finding a job, work atmosphere? Differences between men and women?
- Inheritance rights?
- Women in agriculture: access, tasks, roles. UAA women's groups?
- Women in politics and managing positions.
- Work and family life.
- Going out with friends? Social life outside of family?
- Ideas on religion, thoughts on marriage.
- Birth control, reproductive rights and family planning.
- Ideal number of children?
- Ideal man/woman?
- Raising children: differences between gender?
- Decisions on parenting?
- Household tasks. Division of expenses?
- Economic/other decisions? 'Head of household?'
- Life in Avellaneda vs. life in the colony?

Appendix 2

Ethical Clearance. Study reference number: 43714

Norsk samfunnsvitenskapelig datatjeneste AS NORWEGIAN SOCIAL SCIENCE DATA SERVICES			
Kristi Anne Stølen Senter for utvikling og miljø (SUM) Universitetet i Oslo Boks 1116 Blindern 0317 OSLO		Harald Hårfagres gate 29 N-5007 Bergen Norway Tel: +47-55 58 21 17 Fax: +47-55 58 96 50 nsd@nsd.uib.no www.nsd.uib.no Org.nr: 985 321 884	
Vår dato: 10.07.2015	Vår ref: 43714 / 3 / MSI	Deres dato:	Deres ref:
TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER			
Vi viser til melding om behandling av personopplysninger, mottatt 10.06.2015. Meldingen gjelder prosjektet:			
43714	<i>Gender and social change in agricultural Argentina</i>		
Behandlingsansvarlig	Universitetet i Oslo, ved institusjonens øverste leder		
Daglig ansvarlig	Kristi Anne Stølen		
Student	Elisa Garcia Jaramillo		
Etter gjennomgang av opplysninger gitt i meldeskjemaet og øvrig dokumentasjon, finner vi at prosjektet ikke medfører meldeplikt eller konsesjonsplikt etter personopplysningslovens §§ 31 og 33.			
Dersom prosjektopplegget endres i forhold til de opplysninger som ligger til grunn for vår vurdering, skal prosjektet meldes på nytt. Endringsmeldinger gis via et eget skjema, http://www.nsd.uib.no/personvern/meldeplikt/skjema.html .			
Vedlagt følger vår begrunnelse for hvorfor prosjektet ikke er meldepliktig.			
Vennlig hilsen			
Vigdis Namtvedt Kvalheim		Marte Byrkjeland	
Kontaktperson: Marte Byrkjeland tlf: 55 58 33 48			
Vedlegg: Prosjektvurdering			
Kopi: Elisa Garcia Jaramillo elisagjr@gmail.com			
Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.			
Avdelingskontorer / District Offices: OSLO: NSD, Universitetet i Oslo, Postboks 1055 Blindern, 0316 Oslo. Tel: +47-22 85 52 11. nsd@uia.no TRONDHEIM: NSD, Norges teknisk-naturvitenskapelige universitet, 7491 Trondheim. Tel: +47-73 59 19 07. kyrre.svarva@svt.ntnu.no TROMSØ: NSD, SVF, Universitetet i Tromsø, 9037 Tromsø. Tel: +47-77 64 43 36. nsdmaa@svt.uit.no			