

Title page

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Dynamics of farming styles and cooperative actions disputes of swine farmers in Midi Pyrenees

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Abstract

In Southern France, the regression of swine farms and swine is ongoing. As a counteract farmers search for options of diversification of pork products. The choice for adapting the farm management to new diversified products (or not) is studied by its contribution to diversification of swine farming styles and production methods. In addition, it will involve reorientation of socio-professional networks, especially the farmers' cooperatives. For understanding the various ways of maintaining swine production under the regressive circumstances, we focus on the farmers' motivations for cooperative action.

This article is build upon an inquiry of the diversity in swine farming strategies in a production basin in regression: the departments Lot, Aveyron and Tarn in Midi Pyrenees, Southern France. The survey consisted of 30 semi-structured interviews, followed by 90 structured questionnaires. The diversity in farming styles is explained by local opportunities and contrasts in socio-professional integration in farmers' cooperatives.

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Introduction

During the last decade, two out of three swine farm exploitations in Midi Pyrenees (Southern France) have vanished and the remaining farms face serious difficulties. More than 70% of the swine production in the region is localized in Lot, Aveyron and Tarn (Figure 1). Swine farming in this part of Midi Pyrenees is exemplary for a swine farming region in decline. This study is conducted to understand and represent stylized portraits of diversity in the logics of farmers put into their daily practices: *styles of farming*

Different styles of farming are identified in every branch of farming, even within more or less homogeneous regions (Van der Ploeg 2003). Commandeur (2003) showed that this is even true for intensive swine farming in the Netherlands. In a recent study in French Brittany, five styles of farming were identified, among which two styles of *entrepreneur*: ‘intensity entrepreneur’ and ‘scale entrepreneur’, and styles called ‘craftsman’, ‘stockman’ and ‘inheritor’ (Commandeur *et al.* 2007). In French Brittany however, swine farming is still sustaining; despite the difficulties of low prices, various logics for reducing production costs are still in progress. Our interest in Midi Pyrenees is to study diversity in farmers’ logic in a region of regression and analyze whether and how diversity in the farmers’ logic manifests. The prime hypothesis of this study is that the diversity in *styles of swine farming* in Midi Pyrenees is different from French Brittany, related to the more limited options for reducing production costs

In the previous study in French Brittany we recognized that the majority of the swine farmers do not contribute directly to the formation of the production basin. The farmers’ cooperatives serve as intermediates (Commandeur *et al.* 2007). In fact, in France, farmers’ cooperatives are organizing strongly the production; ensuring firmly the insertion in the food supply chain. The cooperatives negotiate with slaughter houses and cutting factories. They supply technical advice to their members, and in doing so, they express their policy vision on how to produce. In French Brittany the socio-professional network among swine farmers is also tighter than in midi Pyrenees, because local swine farmers’ density in Brittany is much higher. We presume that swine farmers in Midi Pyrenees may be more susceptible to visions expressed by their cooperative, and that they feel more dependent on the strategy of their cooperative. The second hypothesis of this article is the presumption that in Midi Pyrenees, the policy orientation of the cooperatives and the attitude of the (often non-swine-farming) neighbours

are relevant factors, influencing the individual swine farmers' logic. In other words, we presume a dynamic interaction between the meso-sociological level of cooperative organisations and the micro sociological level of neighbourhood integration.

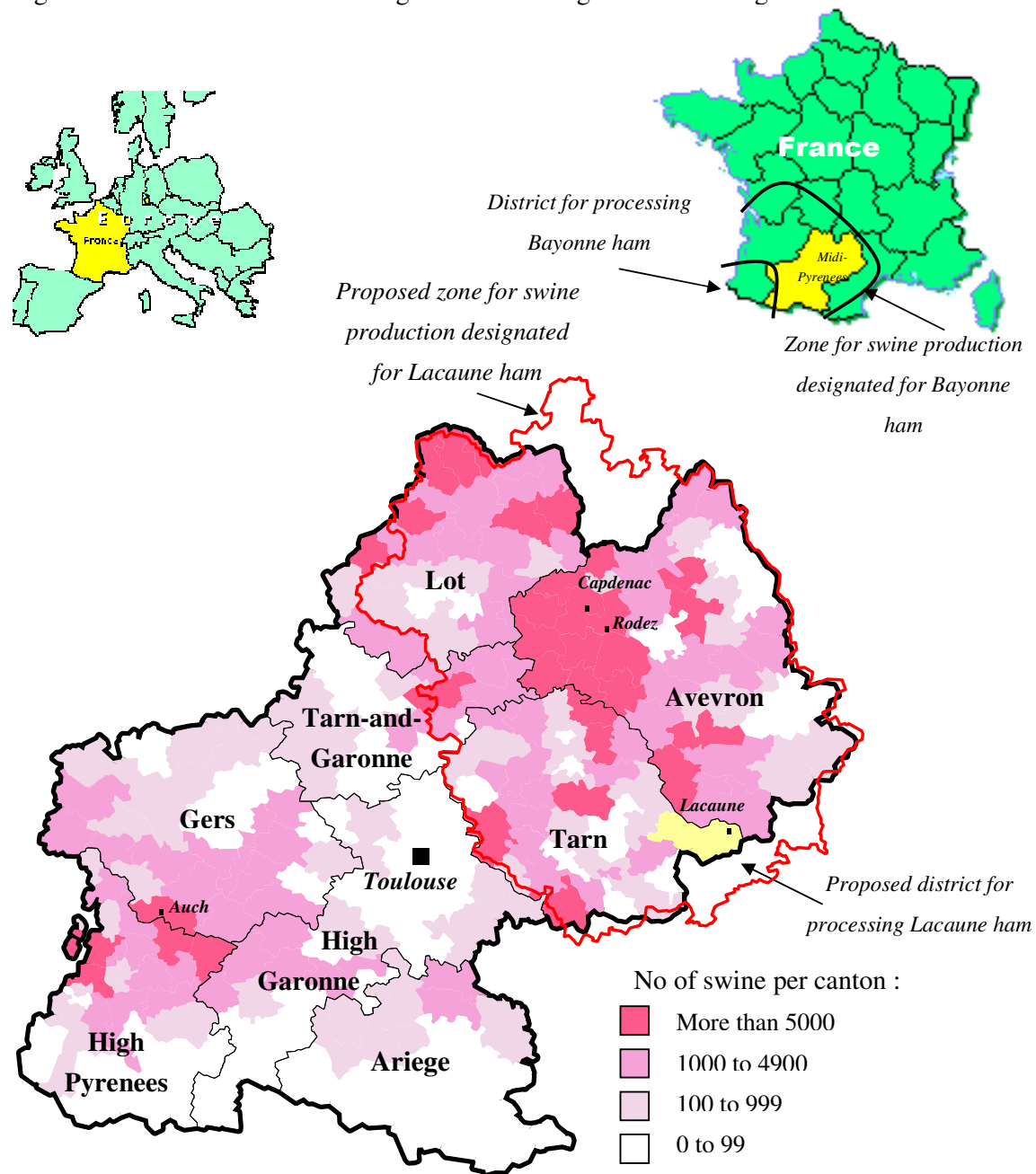


Figure 1 [assembled; suggested constellation]: Number of swine per canton in the departments of the region Midi Pyrenees (Source: RGA 2000) – with indications of the main slaughter houses related to the farmers' cooperatives (Rodez – APS; Capdenac – RE; Auch-Fipso) and the geographical constellations of the production and processing zones for the production of PGI Bayonne ham and PDO Lacaune ham (in Midi Pyrenees / France / Europe)

The first objective of this study is to explore the diversity in *styles of swine farming* in Midi Pyrenees: the manifestation of diversity in swine farmers' logic and farming practices and the integration of swine farmers in socio-professional networks in the major production basin of Midi Pyrenees region in France; the departments Aveyron, Tarn and Lot. We describe the conduct and analysis of the logic of the swine farmers' perceptions: where do they stand in the *space of information* of their business and how do they try and find opportunities for creating a future perspective? The second objective of this study is to examine to what extent cooperatives form a relevant explanation for different spaces of information for farmers. How do farmers get influenced by the way in which cooperatives deal with market and socio-professional environment? How do they approach opportunities for collective action? And in what way do they expect to benefit? We combine therefore the notion of diversity in styles of farming (according to Van der Ploeg and Commandeur) and the dynamics of collective action (according to Olson 1989) of farmers' cooperatives. The integration of these two aspects contains important theoretical challenges. At the same time the local dynamics of neighborhood interactions are of interest, particularly because in Midi Pyrenees swine farmers are often a minority in their neighborhoods, and therefore often not implicitly understood. They often have to negotiate about their position with others. So at micro sociological level two types of interaction are distinguished: among swine farmers and between swine farmers and their other neighbors.

The inquiry starts with the identification of the swine production basin and the space of information in which the diversity of the farming practices manifests. We show the extraction and specification of sociological dimensions, which frame the similarities and contrasts of the various logics of the swine farmers. The positions and direction of the farmers' logics in their space of information are given in reference to the specified dimensions. We abstract and integrate therefore the notion of *style* from the individual to the mental level, by concentrating on the extraction of logics in the perceptions and reasoning of the farmers. The findings of the study were put into debate with two groups of farmers of different farmers' cooperatives. In the discussion of this article, we concentrate on the interactions between the farmers' logic and the specific local opportunities and constraints, in account of the orientations of the farmers' cooperatives, both about geographical conditions and about socio-professional integration.

A conceptual framework

Handling the discrepancy between individual farmers' level and regional (or meso) level is a major challenge for the analysis. At meso level, we identified entities and concepts like:

production zone, production basin, space of information, farming style, and cooperative orientation for collective action. In this section, we mobilize references and definitions for each one of these entities and concepts.

A *production zone* is a common source. It is a global reference for a location, rather than referring to characteristics and boundaries on the production scheme. The reference to a production zone is indicative information for a market, by making use of an image 'made in' without any specificity.

A *production basin* is a different concept from the geographical notion of a zone or region. A production basin refers to a functional setting in terms of an economic activity, which is spatially characterized by the flow of specific economic goods and related finances. The setting of a basin is incorporated in a global scheme that fits with the majority of the implicated actors. The scheme is founded on a strategic view in which human and cultural factors play a prevailing role (Rainelli, 2003).

Knowledge of the conceptual difference between a production zone and a production basin is important for the identification of designated production areas for typical products. The geographical boundaries of designated production zone for certified products are geographical interpretations of the identified limits of a production basin. However, the notion of a production zone for products with a certification for designated origin (PDO) refers both to the origin of the products as to recognizable factors for the consumers. A production basin reflects the structural special confirmation that corresponds with the links between peers in production and a certain type of bonds with clients

A *space of information* is even a more comprehensive concept than a production basin, because it includes the interaction with all carriers of information, without the restriction to flow of specific economic goods and related finances. Within the same production basin with more or less homogeneous technical structures and infrastructures, scientists have found diversity in patterns of farmers' logic and farming practices that cannot be reduced to variations in factorial prices, production intensity or production scale. This indicates that other features than economic flows are involved in structuring patterns of farming practices, implicating the expression of diversity and representing a kind of heterogeneity within a production basin (Bolhuis and Van Der Ploeg 1985).

A *space of information* refers to the notion that every individual is surrounded by information, that may (or may not) appeal to his perceptions. Every individual organizes this information by approaching it with his own rationality. A space of information is therefore not an

objectively definable collection of all information available in relation to a particular subject, because the act of relating information to the subject is a rationalization in itself. With respect to the stylization of logics, the mode of rationalization characterizes the space of information.

Whereas a production basin is characterized by economic flows, a space of information in which farmers operate is characterized by its address to structural features. The most evident structures are technological features and infrastructures. Firstly, there are techno-ecological features, such as (indoor) climate, genetic material and the available options for farming within the constraints of soil type and available physical space. Secondly, there are techno-economic infrastructures, such as supply and sales markets, transport infrastructure, and opportunities for investments and for strategies to purchase breeding animals, feedstuff, and equipment. Thirdly, there are techno-institutional infrastructures, such as farmers' unions and cooperatives, various civil service agencies, institutes for research, education, extension, and management support, and animal health care stations. Fourthly, there are techno-sociological structures, like management policies, formal procedures and processes, strategic constructions of indicators for the interpretation of results and effects, and normative socio-technical constructs of perceptions (Commandeur 2006). These include socio professional relations between peers, who share (or disagree) about notions and normative rules on how swine farming practices should be performed; as well as the relation with their locally active critics who express and sometimes impose normative visions on the farmers (Darré et al. 19??).

Farmers address to the techno-ecological features as tools for application, or as means for skills development. They address to the infrastructures for the mobilization of economic resources and institutional information in search for autonomy or (inversely) for market dependency (Van der Ploeg 2003; Benvenuti, 1975). And they address to the dynamics of techno-sociological features with various modes of rationalization. The diversity in farmers' addresses to these structures suggests that there are advantages and disadvantages in either way of approaching the matters.

The concept of information space is identified through techno-sociological structures that serve as a frame of reference for the structuration of farmers' perceptions. The structuring dimensions concern the socio-technical application of technology, the allocation of labor and investments, the modes of penetrating markets and specific sources of information, and the participation in formal and informal networks. In reference to these dimensions, diversity in farmers' perceptions and logics express as qualitative, multi linear contrasts (Commandeur 2006; Commandeur *et al.* 2007).

Hofstee (1946) related the diversity in patterns of farming practices to the strength of different

influences in structural communications. Neighbors, family and friends, extension officers, researchers and teachers, all participate in the structural communications within rural areas. Through specific discourses, they interpret the prevailing topics, sensitivities and conflicts and thus direct the choices and solutions that farmers choose, apply, and copy from one another. So the space of information is structured, not only in a technical sense, but also in a social sense. Farmers express the differences in outcomes of the social processes in a diversity of patterns. Hofstee introduced the term *style of farming* to describe these patterns of farming practices in relation to the surrounding, local space of information.

In the 1980^s, Van der Ploeg (1987) argued that agriculture practices have become externalized and *scientified* and the farmers' space of information is no longer dominated by local culture, but by global, *scientified* networks. Local patterns have become less important as structuring dimensions that shape farmers' logic and practices and replaced by technological developments and market integration (see also: Van der Ploeg 2003). These and other studies reveal a different kind of structure in the information space of farmers: a structure, that consists of shared and contrasting perceptions of farmers, traders, processors and policy makers, about what should be produced, where, and how it should be produced and processed (and with what quality features), as well as how *the market* and *the consumer* accepts and validates it. In this perception, styles of farming are representations of integrated farmers' logic developed in relation to a specified framework of techno-sociological dimensions (Commandeur 2003). In the case of swine farming the local production of norms takes place under the dominance of the industrial firms that structure the integration of farming activities in the food production chain. However, in the diversity of the often plural active farmers in Midi Pyrenees, there is often a substantial space for maneuver in the other farm activities.

Of a production basin in regression, an obvious assumption is that since opportunities exhaust and fail, the space of information will regress accordingly. The bitter competition among swine farmers for information that may renew the perspectives of their enterprises, in contrast to their colleagues that end their business coincides with streamlining of information. Thus the space of information becomes more uniform, through sharing modes of rationalization, unless specific constraints can be identified that inhibit uniformity. These inhibiting constraints might create in turn the basis for new divergence and diversification.

Collective action can act as molding factor for constraints. We use collective action in the form of farmers' cooperative activities as an input in our research and not as a research object. We discuss how the operation modes of the cooperatives influence the rationalization of farmers' logic and the farmer's visions on the future of their activities. We do not analyze or discuss how cooperative leaders implement their strategies in their organization or even motivate their members. In other words, we have not studied the cooperatives as such; nor

their organisation and their social constitution.

The structure of swine production in Midi Pyrenees

Midi Pyrenees is the fourth largest swine production region in France, with 3.7 per cent of the national herd after Bretagne (54.9 per cent), Land of the Loire (11.6 per cent) and Lower Normandy (4.0 per cent). Table 1 shows an overview of the characteristic features.

Table 1 – Principle characteristics of farms with swine in Midi Pyrenees: no of swine, no of exploitations and surface of agricultural land (2000)

<i>Department</i>	<i>Total swine</i>	<i>No farms</i>	<i>SAL (ha)</i>	<i>Mean SAL</i>	<i>hogs / ha</i>
Aveyron	230,500	1,090	71,333	65.4	3.2
Lot	85,648	1,350	48,240	35.7	1.8
Tarn	84,277	867	44,246	51.0	1.9
Tarn-and-Garonne	24,697	820	36,274	44.2	0.7
<i>Subtotal North-East</i>	<i>425,122</i>	<i>4,127</i>	<i>200,093</i>	<i>48.5</i>	<i>2.1</i>
High Pyrenees	53,294	1,532	36,831	24.0	1.4
High Garonne	18,615	661	31,891	48.2	0.6
Gers	49,006	1,447	76,779	53.1	0.6
Ariege	5,321	473	29,597	62.6	0.2
<i>Subtotal South-West</i>	<i>126,236</i>	<i>4,113</i>	<i>175,098</i>	<i>42.6</i>	<i>0.7</i>
<i>Total Midi Pyrenees</i>	<i>511,358</i>	<i>8,240</i>	<i>375,191</i>	<i>45.5</i>	<i>1.5</i>

The swine production is situated in so-called *disfavored zones* by the criteria of the European Union in 1975. Competitive swine farming in these zones is difficult for topographical, infrastructural and agronomic reasons. The nature of the disfavors differs among the three departments, which is reflected in the other farm activities. In Aveyron the disfavors stems predominantly from the mountain altitudes and slopes, which are traditionally used for serial cropping, in particular in a land stretch overlapping with Tarn (called Ségala). The disfavors in Tarn (cereal and beef production) and Lot (beef production) stem mainly from other reasons: poor soils and infrastructural barriers, like canyon rivers. (Daridan and Ilari 2005).

In order to balance the farm work, swine farmers have often specialized in finishing swine or in post-weaning and finishing, and created cooperative enterprises with colleagues for the farrowing sows, particularly in Tarn and Aveyron. These farrowing units account for the few swine farms that have less than 1 ha of land. The few specialized swine farms in Midi

Pyrenees are also found in the northern swine production zone.

The swine sector is persistently regressing: between 1988 and 2000, two out of three swine farming enterprises in Midi Pyrenees have vanished. The pork board Midiporc (2005) showed a further decline of 32 per cent in 2004 compared to 1999 (Figure 2). The remaining swine farms face serious challenges, because they get exceedingly trapped between two intensive production zones: French Brittany in the north and the Spanish swine production south of them, with whom they compete for feedstuff imports at the harbors of Bordeaux and Barcelona and sales markets in the urban metropolis (Toulouse, Marseille and Lyon).

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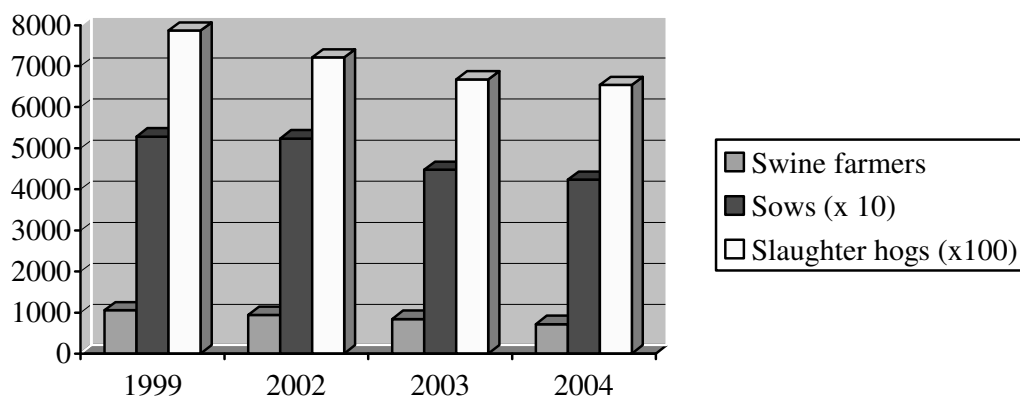


Figure 2 – Numbers of swine farms, sows, and slaughter hogs, of the pork cooperatives in the Midi Pyrenees during the period 1999-2004. Source: GIE Promotion de l'Elevage

The structure of collective and cooperative action

In the south-west a zone is recognized for the certification of a Protected Geographical Identification (PGI) for *Bayonne ham*, processed in the valley district of the Andour. About 95% of the swine farmers in Midi Pyrenees (98% of the slaughter hogs) are associated with the production of Bayonne ham (2005, personal communication Midiporc). At sub regional level a zone for certification is proposed for the production of a Protected Designation of Origin (PDO) for *Lacaune ham* (Figure 1).

In Midi Pyrenees more than 85 per cent of the swine farmers participate in farmers' cooperative. Thus they benefit from collective merchandise flows of supply (feedstuff) and sales (slaughter hogs), as well as technical and veterinary assistance. Since the 1980^s the farmers' cooperatives have been frequently restructured by consecutive processes of reorganizations, fusions and sometimes divisions. The farmers' cooperative Qualiporc

operates now almost exclusively in Lot, whereas various cooperatives operate in Aveyron and Tarn (and other departments): Rouergue Elevage (RE) and Alliance Porc Sud (APS) being the most important; followed by Porci-d'Oc, and Fipso.

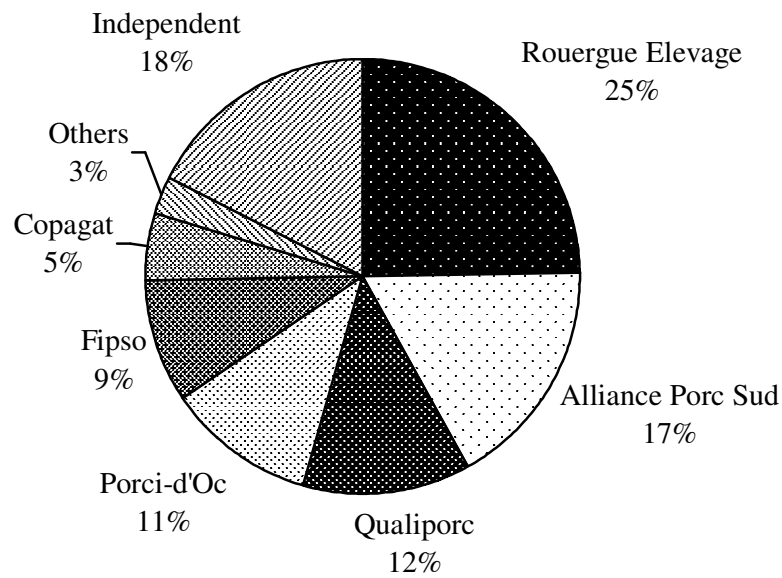


Figure 3 – Division of members over the various farmers' cooperatives in the departments Lot, Aveyron and Tarn (Source: Midiporc, 2005)

An overcapacity of slaughter houses in Midi Pyrenees has developed since the 1980^s when RE and APS could not come to an agreement about a shared slaughterhouse in Montbozon (Aveyron). The overcapacity is filled with the 'import' of slaughter hogs from other regions in France (mainly Bretagne and Aquitaine). A public assumption that the overcapacity is filled with swine from intensive farms in the north of Spain is not supported by figures: the import of pork from Spain is at the level of pork cuts, and not of slaughter animals. However the competition on the sales market with Spanish products is fierce (2005, Midiporc, personal communication). The initiative for the syndicate to develop Lacaune ham was taken by a group of ten farmers in Lot, Aveyron and Tarn, although it is associated with the farmers' cooperative Porci-d'Oc. APS and Porci-d'Oc discussed profoundly about the option of a cooperatives fusion, but in the end (in 2005) they decided against it.

In Lot cooperatives reconstruction led to one dominant farmers' cooperative, which adheres about 90 per cent of the swine farmers: Qualiporc. Qualiporc has taken the initiative to

support the production for pork products with a *Label Rouge* quality certificate.

Materials and methods

Field surveys and sampling

Data collection for the survey took place in 2004 and 2005 in the departments Lot, Aveyron and Tarn in Midi Pyrenees. Six initial interviews were held with experts and extensionists in the regional swine sector. The experts provided an overview of the diversity of swine farming practices in the region. Based on the expert views and on insights and questions from previous interview work, interviews were arranged with 30 swine farmers of several farmers' cooperatives, who were selected by their representation of the regional diversity of situations and farming practices.

The interviews were transcribed and analyzed in order to identify similar modalities in the farmers' responses to the questions. Based on this exercise a structured questionnaire was composed containing questions and sets of different options for responses (modalities). In all there were 109 questions and 620 modalities. The structured questionnaire was first run in 2004 with 60 farm visits among a group of swine farmers from the area. In 2005, an adapted questionnaire was run among a largely overlapping group of swine farmers, using farm visits and telephone questioning. It was presented in to a group of 30 farmers of various farmers' cooperatives in Aveyron and Tarn and a group of 60 farmers who belonged to one of two specific farmers' cooperatives, Qualiporc in Lot and APS mainly in Aveyron (see also Table 6a and 6b).

Analytical methods

The initial interviews led to the identification of the issues and preoccupations in which the farmers voluntarily expressed. They showed the relevant differences among them. The most important preoccupation in Midi Pyrenees was the price level of pork, which was often discussed in terms of a price crisis, due to the relatively higher production costs in comparison to French Brittany. The crisis was leading to a lack of perspective for swine farming in general in the region and/or problems for farm succession. When the aims for production were discussed the discourse focused at quantitative indicators, as well as on both general and specific qualitative features (product certificates). With reference to the socio-professional environment it was noted that in Midi Pyrenees the swine farmers were often isolated from their peers. Drawing on previously obtained results in French Brittany and the Netherlands (Commandeur *et al.* 2007, Commandeur 2006), the interviews allowed for the specification of

a set of relevant dimensions as frame of reference for the evaluation of contrasts of the various aspects of the discourse.

The results of the (semi-structured) interviews and the questionnaires were all analyzed separately, but in a similar ways. Every modality was coded as a variable and inserted separately in a matrix. Variables for which there was a contrast of more than ten per cent between the farmers' responses (more than 10 per cent 'yes' in contrast to 'no', vice versa, or a similar contrast) were used in a data reduction Principal Component Factor Analysis (PCFA), using SPSS. The variables were related to one of five dimensions (see also Table 2), which were each analyzed in separate trails.

Five sociological dimensions were identified as reference for describing the contrasts in the farmers' perceptions and points of view. The dimensions were distinguished in two describing and three explanatory dimensions (see Table 2). The principal factor components of the five dimensions were analyzed in a correlation matrix. The relevant issues of the components were summarized.

Next the 'individual factor scores' of the farmers were subsequently used in a hierarchical cluster analysis for each of the five dimensions. The combination of the cluster analysis in reference to the describing dimensions resulted in the identification of the styles of farming and the design of stylized portraits of these styles.

Field debates

The interpretation of results was discussed with the two farmers' cooperatives that contributed most to the study in terms of interviewed members: APS in Aveyron / Tarn and Qualiporc in Lot. At both discussions, there were about 12 member farmers present to participate. The debate deepened our insights and interpretations of the farmers' logic.

Results

Sociological dimensions

Table 5 represents the sociological dimensions that identified the collection of related subjects, about which:

- the farmers spontaneously and voluntarily expressed themselves without prompting and that were related to their farm and occupation;

- the farmers provided a clear point of view by responding to the questions with factual and direct responses;
- marked differences were discerned concerning the basic point of view of the farmers .

Table 2 – Overview of the identified dimensions and summary of the relevant issues

<i>Dimension types</i>	
<i>Describing</i>	<i>Summary of the relevant issues</i>
Herd and associated technology and the technical application	What do the animals represent for you? What type of genetic material? How do you keep track of performances (indicators)? What is your system for group management and hyper prolificacy? What worries you at your farm operation?
Organization and efficiency of labor and investments	Are your buildings well organized? Which task(s) do you prefer / like the least? Is there a (good) division of labor tasks / work organization? What are the skills of a good swine farmer / farm worker? What are the advantages of your profession? Appreciation of time off? What type of adaptations would you like to make at your enterprise?
<i>Explanatory</i>	<i>Summary of the relevant issues</i>
Ambition of revenues and expectation of prospects	What are your main reasons for choosing this profession? What are your long term objectives as farm operator? Are your revenues enough for you? What is your view on the prospects of swine farming (on the farm / in this area)? What advice would you give to your successor (your child or not)?
Relations with the food chain and the socio-professional environment	What are your sources of information and how do they serve you? Which farmers' cooperative do you belong to, why, and what do you expect of them? What professional and non-professional relations do you have outside your farm and what do these relations consist of? What type of discussions do you have? Do you search for more autonomy or for further integration in market chains?
Appreciation of farming practices and products	Are landscape and environmental management important issues for you? Should local characteristics be made evident in pork products (PGI, PDO, etc) What are the characteristics of swine farmers in this area and are they appreciated? What image does the public have of pork? Do you share that view?

The questions in table 2 display the issues of the discourses of the farmers about which their opinions contrast. Their distribution into the five dimensions facilitates the comprehension of the points of view in terms of linear contrasts.

Diversity per dimension

For each dimension, the contrasting points of views and perceptions of the farmers are analyzed:

(i) *The function of the herd on the farm and the associated technology and technical applications:*

- Mode 1: The farmer has a passion for swine and ambition for technical performances. Some of those farmers are farrower-finisher and others are connected to a maternity collective. This concentrates the focus of these farmers on the technical indicators: the farrower-finishers concentrate on maternity and reproduction, whereas the members of a maternity collective concentrate on the piglet growth at their own enterprise.
- Mode 2: The farmer has a so-called *classical* swine section, which he manages in accordance with common advises by the extension officers in order to gather sufficient family income from the farm. The farmer searches for low cost technical solutions in farm developments in order to reduce investment pressure, and while accepting robust technical performances.

The fundamental difference in perception is that in mode 1 there is a focused and specific interest in swine farming and production performances, whereas in mode 2 there is a general interest in farming and an overall interest in economic sustainability.

(ii) *The organization and efficiency of labor and investments:*

- Mode 1: These farms are organized functionally and efficiently and the farmers take measures for environmental care. Most farmers have recently invested: their buildings are new or renovated for reasons of adaptation to public demands and regulations. The farmers like the management, the interactions with external relations and working in the maternity section.
- Mode 2: The profession is basically chosen for reasons of liberty: being one's own boss. Efficiency is not a principle aim, although the farm organization may be efficient. The farmers have no current plans for investments, partly because they have recently invested but more often because they feel tight by the crisis.
- Mode 3: These farmers feel firmly tight by the crisis and they complain heavily. They like the profession for its variability, although they often prefer working with slaughter hogs over reproduction and maternity, because such is less labor demanding.

The most clear-cut contrast is between mode 1, where the *space to manoeuver* is used for applying labor and investments for adaptation to public demands and prices, and mode 3

where the option for inputs of labor and investments is not present. Mode 2 is neutral between mode 1 and 3 because the motivation for trying to exploit the space to manoeuvre stems from the farmer's liberty to do so, and not from external directives for labor and investments.

(iii) *The ambition of revenues and the expectation of prospects:*

- Mode 1: Grievances about low income and profitability, an unwillingness to make investments and a general pessimism about the prospects for the sector. There is little prospect of family succession.
- Mode 2: Continue farming with the means currently available to them and focus on the possibility of farm succession. Pessimistic about the prospects for swine farming.
- Mode 3: The crises will pass, although structural developments are inevitable. Farmers believe that swine production in the area will continue, and run their farms in anticipation of family succession and their perception of the opportunities.

Mode 1 contrasts with modes 2 and 3 for the prospect (or hope) for farm succession. Modes 1 and 2 contrast with mode 3 for the prospect (or hope) for perspective in swine farming. So this dimension represents the intertwining of farm succession and swine farming perspectives.

(iv) *The relation with the food chain and the socio-professional environment:*

- Mode 1: Farmers are implicated in a collective maternity farm. They are pessimistic about the future because of the crisis, and they criticize their cooperative for being expensive. They have contacts outside the cooperative for expert and private advice and they are willing to discuss the development of certificates for meat products with a geographical denomination (such as PDO Lacaune).
- Mode 2: The cooperative is appreciated for technical and veterinarian service and information. For future perspectives the discuss within their cooperative about environmental care and further development product certificates.
- Mode 3: These farmers feel socially isolated, and feel that they have to defend themselves for being swine farmers. They discuss mainly about technical issues and expect fusions of farmers' cooperatives.

Modes 1 and 2 contrast with mode 3 for dealing with problems within the food chain, versus with problems with the local environment. Modes 1 and 3 show contrast with mode 2 for the intertwined connection with different farmers' cooperatives and departments. Mode 1 is related to farmers implicated with the cooperative *Alliance Porc Sud*, and mode 3 is related to a variety of cooperatives in Aveyron and Tarn. Mode 2 is typical for farmers implicated with the cooperative *Qualiporc* and therefore located in Lot.

(v) *The appreciation of farming practices and products:*

- Mode 1: Farmers want to get involved with the development of certificates with a

geographical denomination: local characteristics should be put in evidence to the pork products. The farmers are proud of their region and willing to promote their products. They also have confidence in the consumers' appreciation of quality aspects.

- Mode 2: The farmers find the labels business confusing for the consumers. They think the consumers just seek cheap meat. They also think that the consumers have a negative image of pork anyway, because associate it with fat.

The contrast between mode 1 and 2 is based on a fully integrated perception of the relevance of production location, production mode, and product validation and consumers demands.

Styles of swine farming in Lot, Aveyron and Tarn

The contrasting modes on the various dimensions do not lead to a multiplication of combinations. Many combinations are not found and appreciated as 'illogic'. Based on the correlation scores of the farmers on the descriptive dimensions (herd and technology, and labor and investments) three styles of farming were clearly identified in Aveyron and Tarn, and described with metaphors: artisan, inheritor and stockman. The assigned metaphors act as a shorthand representation of the guiding logic of different groups of farmers. The metaphors should not be interpreted as value judgments, or seen as implying a hierarchy between the logics. All the logics, and the metaphors used to characterize them, are valid parts of the diversity observed within the production area. On each farm either of the farming styles was dominantly present in farming. In Lot, a local dominant style was found. Table 3a represents portraits of the identified styles. Table 3b shows the distribution of the farming styles that appeared dominant on the farms over the departments and the farmers' cooperatives.

Features of the styles of swine farming

In all styles of farming the swine section was embedded in plural activity of various sorts. We encountered up to four or five different activities on one farm, although specialized swine farms occurred in all three departments. In Lot we encountered mainly beef production – including various special races for specialty products, and sheep farming. In Tarn and Aveyron we encountered also cereal production (mainly in Ségala) and dairy milk production, (and even horse keeping for milk production). In Aveyron several swine farmers were engaged in maternity collectives for piglet production.

The differentiation in styles of farming is both explained by structural features like location (department) and cooperative, and by the identified sociological dimensions. The structural features give a stronger determination to the styles of farming than the sociological dimensions. Therefore no further differentiation was detected among the five interviewed

Table 3a) Features of the identified styles of swine farming, related to the identified dimensions

<i>Style of farming Dimension</i>	<i>Plural active Lot</i>	<i>Artisan</i>	<i>Inheritor</i>	<i>Stockman</i>
<i>Herd and associated technology and the technical application</i>	Aside dairy cows Farrower – finisher or finisher and beef “Classical” system Balancing farrows Commercial feeding mixed at farm Indicator: costs	Multiplier or breeding collective Passion for swine Specialized Practices adoption Technical indicators Improve performance	Poor effective attachment to the animals; “classical” production system Balancing farrows Various indicators	Cereal farmer Beef farmer Breeding collective Rustic animals (non hyper prolific) Indicator: costs
<i>Organization and efficiency of labor and investments</i>	Partner sometimes off farm job Prefers reproduction Organized for time off, but wants more	Perfectionist Organized for time off, but take little Likes the profession Coop employers	Organization functional Dislikes stable cleaning	Organization functional, but could be better Likes animals and annual planning
<i>Ambition of revenues and expectation of prospects</i>	50% or 50-75% of revenues from swine Crises is structural; prospects uncertain	50% or 90-95% of revenues from swine Quality of life Development for succession	50% of revenues from swine Liberty / own boss Continue farming Pessimism	50% of revenues from swine; revenues insufficient Liberty / own boss Valorize cereals
<i>Relations with the food chain and the socio-professional environment</i>	Influence coop: Feed mix at farm Genetic type swine Appreciates coop for services and commercialization	Frustrated by govern politics Criticizes coop Discusses global prices, labels, environment Socially implicated	Appreciates coop for services and commercialization Discusses in coop: global prices, labels, etc. Social appreciation of swine farmers poor	Appreciates coop Relatively isolated Good relations with neighbors
<i>Appreciation of farming practices and products</i>	Poor attachment to region / too many labels Differentiat: no value for farmer Pork image: fat Promotion not valid	Differentiation of products / labels Price margin farmer – consumer too high Own promotion important	Proud to be small in Ségala / Midi P Differentiation of products / labels Consumer under media pressure	Proud to be in Midi P / South-west Fr Differentiation: no value for farmer Supermarkets serve to sell our products

Table 3b) Distribution of swine farms of various farmers' cooperatives in Lot (L), Aveyron (A) and Tarn (T) over their dominant style of farming, after 30 semi-structured interviews (*ssi*) and supported by data collection of two series of 30 (*sq₁*) and 60 (*sq₂*) structured questionnaires

Style of farming Survey distribution		Plural active Lot			Artisan			Inheritor			Stockman		
Department ¹			L	A	T		L	A	T		L	A	T
Cooperative	Nb												
Qualiporc	5	<i>ssi</i>	5			<i>ssi</i>	-			<i>ssi</i>	-		
	19	<i>sq₂</i>	12			<i>sq₂</i>	-			<i>sq₂</i>	5		
Alliance Porc Sud	7	<i>ssi</i>		-	1	<i>ssi</i>		-	1	<i>ssi</i>		2	1
	22					<i>sq₁</i>		4	1	<i>sq₁</i>		10	-
	41	<i>sq₂</i>		9	-	<i>sq₂</i>		8	-	<i>sq₂</i>		15	-
Porci-d'Oc	9	<i>ssi</i>		1	-	<i>ssi</i>		-	-	<i>ssi</i>		2	3
	2					<i>sq₁</i>		1	-	<i>sq₁</i>		-	-
Coopagat	5	<i>ssi</i>		-	1	<i>ssi</i>		-	1	<i>ssi</i>		-	1
	2					<i>sq₁</i>		-	-	<i>sq₁</i>		-	-
Rouergue	3	<i>ssi</i>		1		<i>ssi</i>		1		<i>ssi</i>		-	
Elevage	3					<i>sq₁</i>		-		<i>sq₁</i>		2	
Independent	1	<i>ssi</i>		-	-	<i>ssi</i>	-	-	1	<i>ssi</i>	-	-	-
	1					<i>sq₁</i>	-	-	-	<i>sq₁</i>	-	-	-
Total	120		17	11	2		-	14	4		5	31	5

¹ L = Lot, A = Aveyron, T = Tarn

swine farmers in Lot who are all members of Qualiporc cooperative. The swine farmers in Aveyron and Tarn were divided by three guiding styles of farming, which were given metaphors: artisan, inheritor and stockman. The determination was linked to the type of other activities on the farm (specialized, cereal production, beef production or plural active) and to the farmers' cooperative.

The style *plural active Lot* is characterized by a combination of factors: the plural activity, and a specific farm management organization for the reduction of labor requirement that reflects the influence of the farmers' cooperative (Qualiporc) and the departmental agricultural board. The management system is 'classical' in reference to the technical extension application since the 1970^s in the sense that the piglets are weaned after four weeks, so the sows are kept in seven groups. Hyperprolificacy is managed by balancing the farrows among the sows. All feedstuff is purchased commercially and usually mixed on the farm in

line with the extension of the departmental board, for reasons of costs effectiveness. The farmers appreciate their cooperative for the service and commercialization of the hogs. In Lot a genetic swine brand is preferred that fits with a slaughtering a bit heavier than the standard type. The farmers' cooperative firmly promotes the production of these heavier hogs among their members for *Label Rouge* pork. This quality certificate addresses the public desire for combining less disputed production methods and the positive image of meat taste, caused by prolonged maturation of the animals. *Label Rouge* does not address any features of geographical determination, which is convenient for the swine producers in Lot, because departmental feedstuff production is not an option on the poor soils and departmental pork transformation is difficult to organize for lack of private slaughter houses.

In Aveyron and Tarn there are various cooperatives actives. However, the styles of farming that were found were not limited to the influence of a specific cooperative. In reference to the sociological dimensions, the metaphors are reflecting the dominant farmers' logics and the dominant dimension:

The *artisan* is passionate about improving the technical management of the sows and to maximize the production. Most of his attention is given to reproduction, sow herd management and growth of finishing hogs. However, the focus is not restricted to quantitative data. In anticipation to the expected geographical labels, the artisan searches also for qualitative improvement to meet the criteria (an animal with more weight and more fat, and fed with specific products). In this search the artisan criticizes his farmers' cooperative for not generating enough added values for (geographical) quality features.

We have chosen for the metaphor *artisan* in this case, whereas we used *craftsman* in our studies in French Brittany and the Netherlands (Commandeur *et al.* 2007, Commandeur 2006, 2003). Doing so, we express the subtle difference that in the former studies we encountered a firm focus on the maximization of the technical production of top standard quality. The artisan in Midi Pyrenees is also preoccupied with diversification of quality features, in particular with a geographical denomination. However the farmers' cooperatives are focused on the commercialization of pork in competition with the producers in French Brittany on the standard market (in addition to the commercialization of Bayonne ham).

The *inheritor* is focused on one main perspective: maintaining a rural life and occupation in agriculture. Farm labor is nearly completely drawn from the family labor pool. Proud on the local heritage the inheritor anticipates also to the expected geographical labels, but he supports the farmers' cooperative to generate the market line.

The inheritor is oriented on family and unity with its peers and neighbors. This style is found in all regions studied so far (Brittany, Netherlands). In this style the embedding of the activity is important, both in the geographical site and in its social and socio-professional structures. The embedding offered by the departmental board and the farmers' cooperative for technical assistance and commercialization are appreciated.

The *stockman* is, above all, fond of his animals and passionate about remaining a swine farmer, even if he works at a lower productivity level. The essential is joy of living with animals (swine) on a farm; and although part of the joy stems from the fact that the animals are productive, it is not the productivity level that offers the satisfaction. This way of life with the animals has a certain introversion and requires a low burden of investments. Farm investments are kept as low as possible by putting together "least-cost" solutions. In Midi Pyrenees, this strategy is associated with the cereal production farms in Aveyron and Tarn. In this "least-cost" strategy, the option for regional production and geographical labels is rejected. Such a decision would require specific ambitions and a management focus for specific results, involving planned investments, as well as an extravert openness and external efforts to create and construct specific local marketing structures. The reduced motivation for investments may be related to the fact that the style stockman is associated with poor perspectives for (family) succession. This implicates low pressure on maintaining feasible farm perspectives.

The biggest discrepancy between the plural active swine farmers in Lot and the farming styles in Aveyron and Tarn is that the farmers in Lot do not see the production of swine for a geographical label as an option. Under the local conditions, it is impossible to meet the criteria for any geographical label, and the option is no part of the local discourse about swine farm development. The local discussions are about reducing costs, autonomy and social isolation, and the development of non-geographical labels (like *Label Rouge* – see above).

The figures in table 3b do not reflect an unbiased sample of the swine farmers in the region: the open interviews were held with farmers who were selected for their alleged diversity in farming practices and verbal capacities to express themselves. The structured questionnaires were held with preference for farmers adhered to Qualiporc or Alliance Pork Sud (APS), and with limitation to the number of aged people. So the numbers should be read with caution. Nevertheless some aspects of the distribution are remarkable.

The style *plural active Lot* was not exclusively found in Lot, but also in Aveyron and two incidental cases in Tarn. This coincides with the geographical constellation of the three departments: Aveyron is closer to Lot than Tarn. Next, not all farmers in Lot were identified

by the style *plural active*, but also by inheritor and two incidental cases of stockman. This coincides with the fact that *inheritor* is the most common style of farming in Lot's neighboring department Aveyron. In the comparison between Aveyron and Tarn the relatively elevated number of *artisan* in Aveyron is remarkable, whereas in Tarn the number of *stockman* is relatively elevated. The elevated number of *artisan* in Aveyron calls for associations with the fact that Aveyron has a tradition of several authentic products, labeled for designated origin, like *Roquefort cheese* (from sheep milk) and *Aveyron veal*. The elevated number of *stockman* in Tarn calls for associations with the small average size of the swine section on the farms.

Note that styles of farming are identified in relation to each other, based on the contrasts in the farmers' perceptions and activities, and estimated by an analysis of local professional relations among swine farmers, in a specific universe of styles. There are no 'objective features' from which styles of farming are identified; they are always subjected to the contrast that they form with other styles identified in the same badge. However, as a frame of reference for these styles there are identifications of dimensions and modes of perceptions that appeal to a general sense of logic, which justifies the use of similar metaphors for identifying the styles of farming in different regions and unrelated surveys.

From the analysis of farming styles it looks as if environmental issues do not play a significant role in the region in the discussion about individual and collective strategies. That image is not entirely correct. In general the issue is not as hot as in the intensive regions, like in Brittany, where extensive measures are required for adaptation to government rules. In Midi Pyrenees the government regulations are much easier met, and the pork board Midiporc has an extension program to provide technical assistance to farmers with their farm measures. The hardship in the area stems from incidental interactions with (often non-swine-farming) neighbors, which may lead to social stress and lack of opportunities for farm developments. However, these incidents are not linked to any specific style of farming and there is no collective organization for the defense of the subjected farmers. Therefore these aspects have played a minor role in this presentation of the study.

Discussion

The first hypothesis of this study was that diversity in *styles of swine farming* in Midi Pyrenees may be reduced to a single style. The study shows in fact a single style of plural activity specific for Lot. In the department Lot, the overall dominant style of farming is metaphorically called *plural active Lot*. Swine production in Lot is an essential element of

maintaining sufficient family income on farms. These farms are combining several activities and cannot specialize in any production they are involved. So, swine production is integrated to other activities giving flexibility and contributing to multifunctional unit.

But for other parts of the same area, the field study shows the opposite: a real diversity despite of the regression of regional production. Three styles of farming were distinguished among the farmers in Aveyron and Tarn. The metaphors, used for the three styles of farming found in Aveyron and Tarn were somewhat similar to those of three styles in Côtes d'Armor in French Brittany (Commandeur *et al.* 2007). However, in Britannia, a total of five styles of farming were identified: two styles of *entrepreneur*, a *craftsman*, an *inheritor* and a *stockman*. Both styles of *entrepreneur* were characterized by the focus on efficiency in investments and labor. The decision for investments or (external) labor inputs depended on the expected margins for profits, related to the farm scale and the ruling uncertainty about income perspectives. In Midi Pyrenees farm scales tend to be smaller and the perspectives are more uncertain, because of the higher production costs. The second style of *entrepreneur* found in Brittany was distinguished from the first because it combined the focus on investments with extreme intensity in production; the focus we related to the craftsman. As mentioned above the metaphor *craftsman* stemmed already from the work that was done in the Netherlands and reflects the focus on technical efficiency for producing the 'globalized' standard pork. In order to achieve that level of intensity advanced technical systems are required for vast hyperprolificacy and extreme growth rates. This style we encountered to a limited extent in Midi Pyrenees: although some farmers were very focused on productivity levels, is related to modest hyperprolificacy and reduced system adaptations in comparison with Brittany. In reverse, system adaptation in the technical performances in Midi Pyrenees involved often a (re-) orientation on off-standard products (with designated labels). So neither of the two styles of *entrepreneur* in Britannia was actually identified in Midi Pyrenees (although a few farms in the survey were atypically identified that as having an entrepreneurial style as dominant logic). And in the case of Midi-Pyrenees, we preferred metaphor *artisan* instead of *craftsman* because the focus of this style is not simply in maximization of the number of piglets but also linked to the creation of specialty products.

The disequilibrium in manifestation of styles of farming in the production basin in northern Midi Pyrenees directs towards the issue of the ontogenesis of styles of farming. Originally, styles of farming were identified with reference to locally shared endogenous knowledge about how farming practices should be performed (Hofstee, 1946). The vast input of externally developed and universal scientific knowledge in farming in the late 20th century did not reduce the diversity in styles to a single universal style, but led to a diversification of styles, newly based on technology and labor, investments and markets (Van der Ploeg and

Long, 1994). In our survey area, the input of external knowledge led to a new, locally shared style in Lot, and a diversity of styles based on technology and labor and investments in Aveyron and Tarn.

The divergence in this case between the logic in Lot on the one hand and in Aveyron and Tarn on the other, seems related to the question of *specialization*. As a consequence, the orientation of farmers on production intensity versus plural activity is related to the integration in merchandize flows. It seems paradox that the focus on further intensification is found in the departments of Aveyron and Tarn where merchandize flows are more intraregional orientated, whereas in Lot, where the merchandize flows are super departmental orientated.

For explaining the merchandize flows of pork it should be noted that the market for fresh pork has developed only relatively recent, i.e. since about the 1960^s. From traditions everywhere, pork used to be a product for conservation after transformation measures involving dry cure, smoking or cooking. The fresh pork market has expanded dramatically by the demand for convenience food, distributed by supermarkets, and appealing to the hasty urban life. There are neither authentic traditions nor consumers' pressures towards diversification of fresh pork. The whole issue of product diversification in pork is still concentrated on the conserved product (mainly ham and sausages). And these products are primarily associated with specific districts and stations for transformation and commercialisation. And it is only in relation to these products that there is an interest for the origin of the meat in terms of farm location and farm management practices. *Label Rouge* is an initiative to make a distinction on the fresh market with a claim on citizens' desires for farm management practices (comparable to the initiative of *organic label*, although with a different set of rules and norms). It does not demand the consumers to associate the product with authenticity, geography or any distinct characteristic, but to dissociate it from intensive and industrial production methods; the alliance between producers and consumers is the projection of the sense of dissociation from the industrial image.

The second hypothesis of our study was to examine the role of collective action in orientations of farmers. Our field study shows a great diversity in local debates on what to do for the future of farming. In Aveyron and Tarn, farmers' cooperatives seek more power in negotiating for slaughter hog prices in the competition with the Spanish offer. And, as far as they seek for increase in revenues through geographical labels, they do so within the logic of the style of *artisan*; that is, through intensive production based on intraregional features and options, like Ségala cereals for as feedstuff basis and the production of an older and heavier slaughter hog than standard (about 130 kg versus 100 to 110 kg) for slaughtering at Lacaune. These options are intertwined with farmers' cooperatives policies.

The problem of power over slaughter hog prices on the standard market is a hot issue at Alliance Porc sud (APS). The discussion is related to their past of a powerful cooperative with a strategy to equal French Brittany in production methods and with the current overcapacity for slaughter hogs. At both sides, the farmers' cooperatives that have potential interest for creating alliances (Rouergue Elevage (RE) and Porci-d'Oc) are turning away from the policy of following French Brittany as their example. The relation with RE has is still tense and they are also promoted the development of a regionally oriented production in the 'Greater South'. At the other side, the search for PGI / PDO denomination at Lacaune is a driving force in Porci-d'Oc.

Nevertheless, the three styles of farming identified in this study (artisan, inheritor and stockman) are found in both farmers' cooperatives, which are taken as examples in the region. The study shows the difficulty to separate these styles from the satisfaction of the farmers' logic with the policy of their farmers' cooperative. All farmers' cooperatives should increasingly take into account the ongoing diversification among the farming styles of their members.

In all these dynamics, the question of protection of geographical name to enhance the commercialization process is at the center of the analysis. As a main example, the criteria for the expected PGI / PDO *Lacaune ham*, although still potential, influence already the farmers' logic substantially. The influence was reflected in the farming styles, as well as in the specific contrast on the dimension *ambition of revenues and the expectation of prospects (iii)*. The perspective of the PGI / PDO appeared essential for the style *artisan* and for the logic of all farmers that anticipated farm succession. The perspective appeared important for the style *inheritor* and for the logic of all farmers that intended to continue farming at the present farm location. It appeared rejected by the style *stockman* for its lack of logic in their context of perceptions, and by all farmers without prospect for farm succession.

Since the option of a fusion between the cooperatives APS and Porci-d'Oc is put to a hold in 2006, the restitution debate with APS members was biased consequently. Although the APS members discussed about the desire for development of geographically nominated labels, the specific option for a PGI / PDO Lacaune ham was not an explicit point of discussion. Paradoxically, at the same time the members of the debate defended the political strategy of their cooperative for further specialization similar to French Brittany; that is further intensification and cost reduction of the production for continuing the competition with the offer for standard slaughter hogs from the intensive production regions in France. It seems therefore that the boards of the cooperatives APS and Porci-d'Oc may be imprisoned by the

discussion. The future of the farmers' cooperatives in Aveyron and Tarn from now on seem very dependent on the next moves of their boards to (re-)unite their members with considerate respect to their diversity in farming styles.

In Lot, most farmers are plural active in animal farming. Traditionally, the animals were herbivores. Swine were introduced as a supplementary source of income without requirement of land, although sometimes kept in open air meadow field systems. The reconstruction of farmers' cooperatives has ended in a 'one for all' situation; the cooperative Qualiporc. The debate about the study results in this cooperative was very lively and the outcome of a *plural active Lot* style of farming was widely acknowledged. All (but one) farmers present recognized themselves in this style of farming although most of them added a secondary tendency to one of the styles found in Aveyron and Tarn (artisan, inheritor or stockman). The exception was a farmer who thought himself an entrepreneur and atypical for swine farming in the region.

The board of Qualiporc is eager to lead its members towards added value in the form of *Label Rouge*. This policy is an obvious choice for an area where physical geographical features are hard to attach to product specification. There is no typical source for feedstuff and for slaughtering the hogs the farmers are dependent on the standard slaughter houses. Added value before slaughtering can only be created in 'environmental and animal friendly' production systems. These systems coincide with reduction of production intensity and the allied image.

The strategy for *Label Rouge* quality was widely supported by the members present at the debate, without any opposition, although some of them doubted whether the outcome would really encompass new perspectives. This was particularly noted when the debate focused on the future perspectives of the farmers for their situation in 10 to 15 years: the discussion dropped still. The paradox between the eagerness to develop quality labeling and the perspective it would create was stunning. It seemed as if lost in lack of alternatives, and therefore the only hope.

Whether or not *Label Rouge* is the only hope for Lot is hard to determine. In view of the fast regression of swine farming in the department, it seems so. And at least there were no serious investigations going on to look for alternatives. For example: renewing the support for open air meadow systems was not proposed as an option, presumably because of the implications for labor requirements; the work is hard and unpleasant under in seasonal weather conditions. Besides there are no conceptual examples available on how to merchandize such features. The combination of *Label Rouge* (or any other label) with specific meat image reflecting the

specific regional 'Lot culture' was not proposed, presumably for the lack of local feedstuff production and the lack of power of the cooperatives over the process after slaughtering. Nevertheless it may be postulated that for the creation of future perspective of swine farming in Lot a diversification in styles of farming within the concept of plural activity and focused on additional small scale opportunities may be required for the creation of perspectives.

Conclusion

The scientific impact of this study is concentrated on the connection between farming style and interaction with farmers' cooperatives. The issue came forward because the styles of farming in the production basin could not be analyzed and interpreted in accordance with a single concept of farming styles approaches. The societal impact of this study is the awareness of the interaction between farmers' logic and farmers' cooperatives policies.

On the issue of the two hypotheses, we conclude that the first hypothesis is partly confirmed. We have put forward the aspects of specialization and merchandize flows as explanatory factors for the appearance of a single style of pig farming in Lot. The question, whether the regression of regional swine production is contributing as well, is still open for further research.

The way that farmers produce and organize their production is connected to the organization of merchandize flows. They are at the core of the local debate, which is different from giving advice to the producers. The styles of farming are contributing to the debate and, at the same time, they are influenced by the dynamic of the debate.

We have shown that although a production basin is a unit in technical and economic terms, it is not so in sociological terms. The sociological 'unit' that we found was identified as space of information. This space appeared segmented by the influence of the cooperatives and the local debates.

From our work in farming styles approach, we showed that farming styles are a relevant factor to explain local dynamics of farming and the motivation of farmers to involve in collective actions, and including a way of reflecting about questions of cooperative organization and the organization of industrial chains and networks.

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