

## The construction of the meaning of work for livestock farmers engaged in the agroecological transition

Camille Berrier <sup>a,b</sup> and Nathalie Girard <sup>a</sup>

<sup>a</sup> INRA, UMR AGIR, Equipe ODYCEE, 24 Chemin de Borde-Rouge, 31326 Auzeville, France

<sup>b</sup> ED CLESCO rattachée au Laboratoire de Psychologie de la Socialisation – Développement et Travail (LPS-DT)

---

**Abstract:** In the context of agricultural ecologisation, some farmers are undertaking major changes in their practices, which have an impact on the performance of their farm, their work organisation, as well as their identity and the meaning given to their work. This last dimension has so far received little attention, even though studying it is essential to accompany these deep changes in professions and new ways of working. In order to contribute to this question, our research in social psychology aims to explore the psychosocial processes at play in the reconstruction of the meaning of work for farmers engaged in the agroecological transition. We rely on a theoretical framework that allows us to jointly explore the subjective and social dimensions of behaviours at work. This communication proposes the results of an exploratory study conducted in 2018 via ten semi-directive interviews with livestock farmers in a French network that promotes the use of semi-natural vegetation to feed ruminants. We analysed these interviews by studying both personalisation and socialisation processes that we divided into seven axes of analysis. The results show a strong willingness of these farmers to personalise their practices by experimenting, mobilising their senses and emotions, anchoring their practices on their intrinsic motivations and comparing their system with others, in search of freedom and autonomy. The results also show the need for livestock farmers to share their practices within a community of peers. When discussing the reasons for their choices with their peers, they find the support necessary to reassure themselves, to collectively build the meaning of what they are doing, and to strengthen their professional identity. This study confirms the relevance of jointly studying the processes of personal construction and socialisation of work changes in the agricultural world. It opens up prospects for more in-depth exploration of their diversity, with the aim of improving the support of farmers engaging in the agroecological transition.

**Keywords:** agroecological transition, psychosocial processes, livestock farmers, farming practices, professional transition

---

### Introduction

In an ever-changing world, farmers redesign their production systems to adapt to various changes and uncertainties, including climate change, political and economic fluctuations, and societal pressures which deeply transform their work. Livestock farms are particularly affected by societal expectations of sustainable development, challenging production and business models. Livestock farmers can either resist and remain within the standards prescribed by conventional agriculture, or move towards more innovative practices like agroecological ones, at the risk of feeling marginalised. Regardless of their choices, livestock farmers as well as all agricultural stakeholders must deeply rethink their work (Coquil *et al.*, 2018) at the economic, technical and social levels. However, many questions remain open: How do farmers and those who support them personally experience these mutations and changes? What do these mutations psychologically generate for them in their relationship to work? For extension agents, these more intimate dimensions related to identity and the meaning given to work (Kling-Eveillard *et al.*, 2012) are more difficult to address than technical or economic problems. Moreover, farming is a professional environment in which practitioners have to be strong and courageous, leading to the difficulty for them to talk about what they are experiencing, as some farmers have testified in the media ("*I'm constantly putting on a brave face*", The Guardian, 2020). These personal dimensions of work have been addressed by studies of psychosocial risks (Fraser *et al.*, 2005; Hagen *et al.*, 2019) since agriculture is a sector particularly affected by these problems (Torske *et al.*, 2016). For example, Kolstrup *et al.* (2013) conducted a literature review showing that "*dairy farm operators [...] are faced with*

many demands and stressors [...] and these appear to be shared across countries and cultures". These authors showed that farmers are faced with multidimensional constraints related to their working conditions ("high workload and time pressure, machinery breakdowns"), economic aspects ("irregular and uncertain income, financial debt and high interest rates") and social difficulties ("balancing work and family and working with multigenerational family members"), which put them under pressure. These authors point out that these pressures, combined with poor control and lack of social support, can lead to burnout. They therefore question the services to be implemented to accompany farmers' suffering. In this perspective, Reissig *et al.* (2019) showed that it is possible to prevent burnout by taking farmers' expectations about their work into account as well as their social relationships. According to them, "research on the positive side could provide tools for the prevention of burnout in agriculture, using concepts such as enrichment and positive spillover", which could help to empower farmers by strengthening their internal (*i.e.*, person-specific) factors and social relationships. In a study of resilience and adaptability of dairy farms in the process of organic conversion, Nettle *et al.* (2014) also emphasized the importance of encouraging farmers to do what motivates them, reinforcing their sense of self-efficiency, and to take the influence of their entourage on their professional choices into account. Other researchers focused their attention on the personal reasons that could lead some farmers to move towards agroecological practices. Barbier *et al.* (2015) showed that changes towards more ecological cropping practices could generate positive emotions for farmers. Coquil *et al.* (2017) also showed the importance of taking "the history [of farmers], their culture and also the evolution of their desires" into account in order to understand the processes at stake in these changes.

However, all these studies are focused on the effects of the changes and do not make it possible to understand how and on what personal resources the farmer builds his project of change. How and why do farmers rely on personal and subjective dimensions in their relationship to work? What are the personal and social processes that enable them to project themselves (Boutinet, 2013) into a future system that is acceptable to them? These are the questions underlying our research about the psychosocial processes of commitment to agroecological livestock practices, similar to that of Lanneau (1993) and Salmona (1994) for the industrialisation of agriculture.

## Conceptual framework

We based our research on social and work psychology concerning psychosocial transitions, occupational transitions, and occupational health and well-being. In particular, we drew on the concept of interstructuring between individuals and institutions (Malrieu, 2013), which has proven useful to understand professional transitions (Croity-Belz *et al.*, 2006) such as the agroecological one. According to Malrieu (1987), individual socialisation is plural because it takes place in different places, groups and at different moments of life. This plurality puts individuals under tension, even in conflict with others and with themselves. They then develop innovative strategies to individually position and assert themselves by relying on their surrounding social environment. Our ambition is therefore to explore these psychosocial processes within livestock work.

We focused our research on livestock farmers who are engaged in the agroecological transition. Our hypothesis was that this transition opens multiple opportunities for farmers for the development of their project. These dynamics are experienced as being innovative, both at the individual and social levels, leading them to rebuild the meaning they give to their system. We chose to focus our study on livestock farmers. We hypothesize that their relationship with animals is one of the driving forces leading them to change their practices. We hypothesize that such a reconstruction takes place through psychosocial

processes, and we believe that the identification of these processes could be a lever in the accompaniment of livestock farmers involved in this professional transition.

## Methodological approach

This research is based on a partnership between INRAE and a SCOP (Cooperative and Participative Association) dedicated to training and advising in the sectors of agriculture and the environment. This SCOP is designed to facilitate the Patur'Ajuste network, which brings together livestock farmers who are heterogeneous in terms of their geographical location as well as their livestock systems (cattle, sheep, goat, milk/meat), and pedo-climatic and socio-economic contexts (supply chain, technical support, social environment, origin of the farmers, etc.). What brings these farmers together is a common desire to make the most of semi-natural vegetation to feed their herds. We chose medium-sized farms for which the farm managers are also those who implement the practices themselves.

We conducted interviews with ten farmers in 2018 (Table 1).

Farmer's code	French department	Age range	Type of livestock system	Direct selling (Yes/No)	Year of enrolment in the network	Number of times attended a network meeting
AJPA	Maine et Loire	60-65	Beef cattle	Yes	2014	9
SJJR	Maine et Loire	60-65	Beef cattle	No	2013	5
LB	Maine et Loire	50-55	Cattle and sheep meat	Yes	2015	3
CG	Maine et Loire	40-45	Beef cattle	No	2015	6
FL	Loire Atlantique	30-35	Sheep meat	Yes	2016	4
TR	Loire Atlantique	30-35	Sheep meat	Yes	2013	3
EFP	Haute Loire	45-50	Goats, cattle	Yes	2014	3
CV	Haute Loire	40-45	Sheep meat	Yes	2014	5
ET-CL	Loire	30-35	Sheep, cattle, goats	Yes	2017	2
JMW	Hérault	50-55	Beef cattle	Yes	2014	3

**Table 1. Sample characteristics in March 2018.**

Using an active listening posture centred on the person (Rogers, 1942) and the "autobiographical statements" method (Malrieu, 2003), we addressed the following topics during the interviews: the definition and description of their profession, the practices they have chosen and, above all, why, and the professional links they maintain with the Patur'Ajuste network and/or other networks. Our objective was to understand how these farmers decide to engage in agroecological practices even though this is not the dominant professional standard.

The interviews were recorded and transcribed. This corpus was structured in a database using Nvivo Computer-Aided Qualitative Data Analysis Software. It was then coded and analysed in an iterative way, between a descriptive coding that formatted the data, making it possible to describe and retrieve the information collected later, and an analytical coding (or "axial coding" according to Corbin and Strauss (2014)), making it possible to assign conceptual categories to text segments of the corpus. Going back and forth between the corpus, this analytical coding and our conceptual framework, we were able to build an interpretation of the farmers' discourses.

## Results

We identified seven axes describing the psychosocial processes involved in the construction of new practices, related to personalisation or socialisation (Table 2).

Personalisation	P1	Deliberately experimenting with new ways of doing things
	P2	Using their senses and emotions towards the living environment to adjust their practices
	P3	Designing their practices on the basis of their representation of other systems
	P4	Designing their system on the basis of their intrinsic motivations
Socialisation	S1	Building the meaning of their practices within a community of peers
	S2	Finding the support of peers necessary to reassure themselves about their practices
	S3	Strengthening their identity by widely communicating about their practices

**Table 2. A grid to describe the behaviours and representations of farmers involved in the agroecological transition.**

### P1: Deliberately experimenting with new ways of doing things

The interviewed farmers often emphasized the importance of trying out, experimenting with and testing new practices. For them, they have to find ways to adapt their practices to the specificity of their farm: *"Since each one is from a different area of France, it allows us to say that, depending on the land, there are different reactions. Everyone has different problems deep down."*<sup>1</sup> They also talk about the need to experiment in order to grasp the variability linked to working with living objects, to *"what cannot be learned at school"*. For some of them, experimentation is a way to solve their own problems or frustrations. To set up these experiments, they proceed by trial and error, assessing the reasonable risk from their point of view and considering that failure is part of learning: *"it's a philosophy of learning"*. These behaviours are inherent to innovative farmers but this is probably accentuated by agro-ecology because current practices are complex and uncertain because they must be in harmony with living objects. They fully integrate this risk, which is less important than not trying and then having regrets: *"It is better to do something and fail than not to do it and regret not doing it"*. Some say that this allows them to make up their own minds by *"seeing with their own eyes"* the result of new practices. It also gives them a sense of pride in finding something they did not think existed. Moreover, they are proud of thinking, acting and doing things on their own, without following prescribed rules and building their own standards. They present experimentation as a means of discovering, learning and developing new knowledge, and they express the pleasure and satisfaction they derive from doing it: *"I'm enjoying it", "it's great", "I'm having fun", "I love it"*.

### P2: Using their senses and emotions towards the living to adjust their practices

Farmers often talk about the relationship they have with living objects: *"We play with it, we are one with the living world"*. This relationship with the living world implies that they deal with situations that are unexpected and uncontrollable: *"It's living things! One day it can go very well, the next day it can go very badly! Even from one animal to another"*. In this respect, they say, *"Especially the living environment, you can't make it up! It's really a science of nature"* and they must know how to *"use all that the earth offers through natural means"*.

<sup>1</sup> All quotes in italics are drawn from our corpus.

They speak of their interest in respecting nature, of loving it: *"It is a love of nature"*, in a relationship of reciprocity, whether positive, *"by being closer to nature, it reciprocates"*, or negative, *"nature responds violently to violent acts"*! In order to be able to work, they even express some need to see, touch and feel what is happening in the interactions they have, especially with animals. Livestock farmers use their senses in their work: *"It's a bit of an innate gift that we have, to be breeders, to feel things. When I go to see my sheep, I go there every day... and then I pet them. I can approach them with no problem."* Breeders also use their emotions by transposing what they feel as human beings and what they imagine their animals feel. One farmer's wife said that her husband relies on his own feelings to choose his practices: *"My husband, when he sees the animals locked up, it's like it's him... because he doesn't like being locked up, he doesn't lock up the animals"*. Some go as far as to attribute human behaviour to their animals, such as the faculty of speech *"they talk to us too"*, positive emotions (*"At first they are very happy, for an hour. And then they look for dandelions"*), or negative ones (*"Goats are awful, they complain for nothing, in fact. As soon as you catch them, they cry"*).

Farmers thus use their emotions to understand the reactions of living objects with which they interact in their daily activity. A form of anthropomorphism is then established between the farmers and their animals, which are sometimes considered as members of the family (*"cows are part of the family"*). This enables them to understand the reactions of the animals and to adjust their practices, with the aim of mutual well-being.

### P3: Designing their practices on the basis of their representation of other systems

Many farmers also rely on the representation they have of other systems to build and customise their practices. They look at what other farmers are doing in order to form an opinion and build their own system (*"There are times when it's good to look at others and test it, but there are times when you have to go back home and say, 'ah yeah [...] it's not so bad at home, it suits us'"*). Most farmers compare their system to the conventional one to express the fact that, for them, it makes no sense to do so, as expressed in the following examples: *"In the conventional system, they delegate a lot and they become dependent on others... they become a link in the agro-industry"*.

Most of them say that they do not want to invest, especially in mechanisation and buildings *"because those who are in trouble are the ones who have made too many investments, [...] We've stayed in our little thing"*. Moreover, they feel that some standards prescribed by the conventional model are no longer efficient today. The practices implemented by farmers who have decided to work differently then become a source of inspiration for them: *"When I was at his place, when I saw how he worked in the mid-mountain area, I said to myself: 'wow!'"*. And he seemed super happy!"

### P4: Designing their system based on their intrinsic motivations

The interviewed farmers also expressed very clearly that they had thought up their system based on their intrinsic motivations, whether it be *"to earn a living according to my aspirations"* and/or to their personal convictions, for example, *"to try not to get sick because of what we do"*. It sometimes put them in the state of cognitive dissonance that they are fully aware of. They recognise that they face difficulties such as low pay, little time off, exhausting physical labour and risk of failure. However, they prefer to accept these constraints in order to be consistent with their vision of their professional activity and, more broadly, with their vision of life (*"I had a lot of advantages but, in fact, I realised that the advantages [...] that's not what I wanted... [...] it was to love what I actually do!"*). They go so far as to say that, for them,



their profession is a passion, which suggests that their emotional state prevails over reason. One interviewed farmer even said that passion is necessary to do his job (*"Our job, [...] we do it as passionate people, otherwise we could not do it"*). This passion is based in particular on their love of nature (cf. P2), but also on the pleasure of having various activities. Most of them emphasize freedom and autonomy in particular, which seem to be important criteria in their choice. This professional vision contrasts with those who decide to follow the standards of conventional agriculture and to specialise their production. It leads them to *"prefer to do a little less [in terms of quantity of production] and do it a little better. It's more fulfilling than be one of many doing a repetitive task"* rather than seeking benefits such as days off, better pay, etc., which are the accepted work standards in the professional world (link to P3). Overall, these four processes illustrate a strong willingness of these breeders to personalise their practices. It can be interpreted as a desire to reappropriate their own work, to regain a form of freedom and decision-making autonomy. Their practices of experimentation, of using their senses and emotions, as well as of anchoring their system and practices on their intrinsic motivations, could also be interpreted as a desire to deconstruct the prescriptions advocated in their professional sector.

### **S1: Building the meaning of their practices within a community of peers**

This axis expresses the construction of practices through the confrontation and exchange of experiences and ideas (*"they are exchanges of experiences with natural vegetation as well as with ideas"*). This exchange takes place within a community of breeders perceived as being different (*"we have the same job but different products"*), but with the same state of mind (*"It is the Pâtur'Ajuste spirit"*). Such a spirit is beyond a simple transposition: it is a way of opening themselves up to new practices, of recognising themselves in others (*"there is a family side to the network, we're all a bit crazy"*), and of relying on the experiences of others to build their own practices (*"you call a friend [from the network], then you form your own opinion and you give it a try"*) (link with P3).

### **S2: Finding support from peers to reassure themselves about their practices**

Even if their system is consistent with their motivations (cf. P4), these choices marginalise them. As a result, they express the need to find people like themselves: *"What I found good was that we spoke pretty much the same language, that around here, we didn't talk because we were considered eccentric"*. They need to know that they are not alone in practicing differently, even if they claim the singularity of their situation (cf. P1). In the network, they seek not only technical advice, to be reassured about the efficiency of their system, but they also seek moral support to be reassured as a person (*"we can still help each other, [...] we have occasionally experienced something similar, we must not give up, it will happen again"*). Within this network, they find it possible to talk and listen to each other without judgment, contrary to what happens with their neighbours *"We can't share in our local area, whereas when we meet others [in the Pâtur'ajuste network], we reassure each other"*. This possibility to exchange freely and with kindness seems essential for them to face the difficulties they encounter. One of them even mentioned that it was a way for him to get out of a burnout and that, according to him, the fact of being able to talk and exchange could prevent suicides.

### **S3: Strengthening their identity by widely communicating about their practices**

Many breeders expressed the importance for them to be able to communicate and exchange ideas about their work beyond their peers, *i.e.*, with consumers, future breeders, but also with society in general. They need to explain what they do, how they work and what impact this has on the quality of

their production. For those who sell their products directly to consumers, interacting with them is of utmost importance to explain how their practices shape their products from an organoleptic point of view ("You also need to teach your customers how to eat this meat. It's a little more chewy, it's a little more tasty"). Some interviewees also take the time to explain their practices from an environmental point of view ("I have to provide information to tell them that the plots are not visually aesthetic, but that they are ecologically even richer [...] we have to change people's mentalities"). Some interviewed farmers also expressed their desire to pass their experiences on to other farmers. They welcome trainees, help new farmers to establish themselves, or organise open houses, to make them aware that there are different ways of working. These farmers also talked about their need to communicate more widely with society, to counteract the information disseminated in the media ("We have to explain to people! Everything they hear in the media... Junk food"). For them, this can be done through various means such as : Visits to their farms, commercial events and participating in local initiatives. For them, all these communication initiatives are a way to "spread ideas", to "enhance the value of the profession" and to give meaning to what they do ("we talk to people [...] it always gives meaning to what we do. It gives us more confidence in our practices").

## Discussion and perspectives

This description by process thus highlights personalisation and socialisation as two major orientations in the construction of the meaning given to practices. However, it dissociates these two processes, whereas they are intertwined, as shown in Malrieu's (2003) autobiographical accounts of individuals' behaviours. In our research, we observed that personalisation and socialisation co-construct practices both for the farmer's development and for the development of new practices within a professional community, or even to respond to social issues. For example, the breeders expressed the pleasure of experimenting autonomously (P1), while saying they need to compare their experiments with their peers to feel supported (S2). These two processes thus feed into each other. They enable breeders to assert themselves as individuals by relying on their motivations (P4) while building on the meaning that their peers give to the innovative practices that they share (S1).

This study has shown that these livestock farmers engaged in agroecological practices rebuild their practices through different processes of personalisation and socialisation (Dufour & al., 2016). They thus seek a coherence between their personal aspirations and the collective representations of their social environment, and this coherence enables them to give meaning to what they do.

In particular, we highlighted the pleasure that these breeders feel when experimenting with new ways of doing things (P1), close to the experiential learning of Kolb (1984). In this case, individuals have to go through their own experiences (in the sense of Dewey, 1938) in order to achieve self-fulfilment, whether in failure or success (Clot, 1999). It is thus a question of human agentivity (Bandura, 1986), *i.e.*, of the capacity of individuals to be active subjects (Almudever *et al.*, 1999) of their own lives. Such a capacity may be carried out by exercising control and regulation of their actions, thus promoting the individual's motivation to learn (cf. P4). As we have shown, farmers learn through their view of other people's ways of doing things and they go beyond these models by generating new skills and behaviours to adapt their practices and systems to their particular situation (link P1-S1). The national days of the Pâture'Ajuste network give them the opportunity to draw on the social representations (Michel-Guillou and Weiss, 2007) they have of other systems in order to build their own practices (P3). This can be by social comparison (Festinger, 1954) that may attest to a need to compare themselves to others in order to know their own value in the absence of standards. By experimenting with new practices (P1), farmers

also rely on their senses and emotions (P2), as described by Salmona (2010). In the context of agricultural industrialisation, this relational know-how, close to the emotional skills studied by Gendron (2017), and this "*engagement with the living environment*" are forgotten dimensions of the farmer's profession, as shown by Blanc (2009). In these farms, their intrinsic motivations (P4), in the sense of Deci and Ryan (1985), explain their commitment to agroecological practices. This self-determination is a way for farmers to recognise themselves in what they do and to be satisfied with their work, even though their choices are far from the main professional standards. At the same time, they seek a form of social support (S2) in interpersonal relationships (Almudever and Dupuy, 2016) with their peers. Finally, they look for recognition of their knowledge and skills by comparing them with others (De Gaulejac, 2012), such as consumers, neighbours and institutions.

These first results helped us to open new research avenues:

- To what extent can the agroecological transition open perspectives for farmers to build their own professional standards in the face of the uncertainties they face? To what extent is the agroecological transition a means for them to claim their opposition to the prescriptive standards advocated by industrial agriculture?
- To what extent can agro-ecology enable farmers to reintegrate the more subjective dimensions into their relationship to work such as love of nature and passion for animals, which have been inhibited by more intensive practices?

## Conclusion

This first study, grounded in Malrieu's (1973, 1989) theoretical model of plural socialisation, has shown that within the framework of the agroecological transition, farmers build their own professional practices by relying on their own knowledge and conception of the profession, as well as by drawing inspiration from the different living and professional environments that surround them. It is promising to understand the professional transition that agro-ecology may represent in relation to the orientations of the conventional agriculture dominant until now. We thus confirm that in the agricultural domain as in other professions (Croity-Belz & al. 2004), it is important to study the interactions between the processes of personal construction and the processes of social transformation related to changes in the professional world (Almudever and Dupuy, 2016). It will be a first step before considering the use of these processes by agricultural advisers who support farmers in their transition.

We plan to study how the commitment level to these changes is related to farmers' possibilities of thinking about a new project for their system that is in line with their values and motivations. Still based on the model of plural socialisation (Malrieu, op cit.), we propose to carry out a psychosocial analysis according to the four levels of Doise (1982): intrapsychic, inter-individual, positional and ideological. We will first focus on perceived social support (Cazals *et al.*, 1993) and the feeling of self-efficiency (Almudever *et al.*, 2007; Faurie, 2012; Faurie and Costalat-Founeau, 2016), as well as on motivational (Levy-Leboyer, 2006) and emotional (Van Dam and Nizet, 2015) mechanisms. Our objective is twofold:

- to identify the effects of the commitment to new practices on the professional development of each breeder through the integration of practices consistent with who they are as a person;
- to characterise the perceived effects of this commitment on the development of the profession.

The results we expect from this research would allow us to undertake an operational reflection on how to take these processes in the farmer-counsellor relationship into account and to thus grasp the more personal dimensions of work linked to people's identities and the meaning given to work (Dockès *et al.*,



2019). In doing so, our ambition is to contribute to current reflections on advisors' efforts to contribute to the human dimensions of agricultural labour.

## References

- Almudever B., Croity-Belz S., Hajjar V., 1999. Sujet proactif et sujet actif : deux conceptions de la socialisation organisationnelle, *L'Orientation Scolaire et Professionnelle* 3, 421-446.
- Almudever B., Croity-Belz S., Hajjar V., 2007. Activity System Model, Perceived Self-Efficacy, and Newcomer Integration Behaviour, *Relations Industrielles/Industrial Relations* 62, 4, 613-640.
- Almudever B., Dupuy R., 2016. Sujets pluriels : la construction de la personne à l'articulation de différents milieux et temps de socialisation, *Nouvelle revue de psychosociologie* 22, 7-20 .
- Bandura A. (Eds), 1986. *Social foundations of thought and action: A social cognitive theory*, Englewood Cliffs, N.J.: Prentice-Hall.
- Barbier C., Cerf M., Lusson J.M., 2015. Changing farming practices and experiencing positive emotions, *@ctivités* 12 (2), 26-52. (hal-01713763).
- Blanc J., 2009. Relational knowledge and commitment with the living environment: the forgotten dimensions of sheep farming practice, *Nature Sciences Sociétés* 17, 29-39.
- Boutinet J.P., 2013. Projet, In J. Barus-Michel, E. Enriquez et A. Lévy (Eds), *Vocabulaire de psychosociologie*, ERES, 231-239.
- Cazals M.-P. Almudever B., Fraccaroli F., 1993. Social support, coping strategies and psychological well-being among young people awaiting employment, *European Journal of Organizational Psychology* 3(3), 205-216.
- Clot Y. (Eds), 1999. *La fonction psychologique du travail. Le Travail humain*, Presses Universitaires de France.
- Coquil X., Dedieu B., Béguin P., 2017. Professional transitions towards sustainable farming systems: The development of farmers' professional worlds, *Work* 57(3), 325-337, <https://doi.org/10.3233/WOR-172565>.
- Coquil X., Cerf M., Auricoste C., Joannon A., Barcellini F., Cayre P., Chizallet M., Dedieu B., Hostiou N., Hellec F., Lusson J.-M., Olry P., Omon B., Pros, L., 2018. Questioning the work of farmers, advisors, teachers and researchers in agroecological transition, A review. *Agronomy for Sustainable Development* 38(5). <https://doi.org/10.1007/s13593-018-0524-4>.
- Corbin J., Strauss A. (Eds), 2014. *Basics of qualitative research: Techniques and procedures for developing grounded theory*, Sage publications, 4th edition.
- Croity-Belz S., Almudever B., Hajjar V., 2004. Recherche d'information, conduites d'innovation et interdépendance des domaines de vie : les modalités et les déterminants d'une participation active des nouveaux recrutés à leur socialisation organisationnelle, *Le travail humain* 67, 3, 283-304.
- Croity-Belz S., Gaudron J.P., Baudin P., Simonet M.H., 2006. Rôle des relations interpersonnelles lors d'une phase de transition professionnelle, *Carrièreologie*, 10(3), 565-585.
- Deci E.L., Ryan R.M. (Eds), 1985. *Intrinsic motivation and self-determination in human behaviour*, New York, Plenum Press.
- De Gaulejac V., 2012. Identité, In J. Barus-Michel, E. Enriquez, A. Lévy (Eds). *Vocabulaire de psychosociologie*, Erès, 175-182.
- Dewey J. (Eds), 1938. *Experience and Education*, New York, Macmillan Company.
- Dockès A.-C., Chauvat S., Correa P., Turlot A., Nettle R., 2019. Advice and advisory roles about work on farms. A review, *Agronomy for Sustainable Development* 39(1), <https://doi.org/10.1007/s13593-018-0547-x>.
- Doise W. (Eds), 1982. *L'explication en psychologie sociale*, Sociologies, Paris, Presses universitaires de France.

- Dufour A., Alavoine-Mornas F., Godet J., Madelrieux S., 2016. Diversité des cheminements en agriculture biologique : le sens du métier en question ?, *Innovations Agronomiques* 51 (2), 19-28, hal-01393843f.
- Faurie I., 2012. Sentiments d'efficacité personnelle et dynamique du projet professionnel, *Psychologie du Travail et des Organisations*, 17, 1, 37-60.
- Faurie I., Costalat-Founeau A.M., 2016. Sentiment d'efficacité personnelle et dynamique capacitaire dans les choix d'orientation atypique, *L'Orientation Scolaire et Professionnelle*, 45(2), 129-154.
- Festinger L., 1954. A Theory of Social Comparison Processes. *Human Relations*, 7(2), 117-140.
- Fraser C.E., Smith K.B., Judd F., Humphreys J.S., Fragard L.J., Henderson A., 2005. Farming and Mental Health Problems and Mental Illness, *International Journal of Social Psychiatry*, Sage Publications, 51(4), 340-349. DOI: 10.1177/0020764005060844.
- Gendron B., 2017. Emotional capital: the set of emotional competencies as professional and vocational skills in emotional works and jobs, *Vocational Education and Training An international Perspective. Monographic Sector*, doi: 10.5944/reec.29.2017.17433.
- Hagen B.N.M., Albright A., Sargeant J., Winder C.B., Harper S.L., O'Sullivan T.L., Jones-Bitton A., 2019. Research trends in farmers' mental health: A scoping review of mental health outcomes and interventions among farming populations worldwide, *PLoS ONE* 14(12): e0225661, <https://doi.org/10.1371/journal.pone.0225661>.
- Kling-Eveillard F., Cerf M., Chauvat S., Sabaté N., 2012. Working conditions on livestock farms, a personal and multifaceted topic: Some recommendations to help farmers' advisers. *INRA Productions Animales*, Numéro spécial « Travail en élevage », 25, 211-220.
- Kolb D.A. (Eds), 1984. *Experiential Learning. Experience as the Source of Learning and Development*, Englewood Cliffs, NJ, Prentice-Hall.
- Kolstrup C.L., Kallioniemi M., Lundsqvist P., Kymäläinen H.R., Stallones L., Brumby S., 2013. International Perspectives on Psychosocial Working Conditions, Mental Health, and Stress of Dairy Farm Operators, *Journal of Agromedicine* 18(3), 244-255, <https://doi.org/10.1080/1059924X.2013.796903>.
- Lanneau G., 1993. L'innovation : franchissement progressif d'étapes nécessaires ou ruptures ?, *Colloque international de Sociologie*, Innovation et Société, Université Toulouse le Mirail, France, 7-9 avril.
- Levy-Leboyer C. (Eds), 2006. *La motivation au travail : modèles et stratégies*, Paris, Éditions d'Organisation.
- Malrieu P., Malrieu S., 1973. La socialisation, In Gratiot-Alphandéry H., Zazzo R. (Eds), *Traité de psychologie de l'enfant*, vol.5, Paris, Presses Universitaires de France.
- Malrieu P., 1987. Le projet personnel et l'innovation sociale, Paris, CNRS Éditions.
- Malrieu P. (Eds), 1989. *Dynamiques sociales et changements personnels*, Paris, CNRS Éditions.
- Malrieu P. (Eds), 2003. *La construction du sens dans les dires autobiographiques*, Ramonville Saint-Agne, France, Érès.
- Malrieu P., 2013. La notion d'interstructuration du sujet et des institutions, In A. Baubion-Broye (éd.), *Penser la socialisation en psychologie. Actualité de l'œuvre de Philippe Malrieu*, Toulouse, Érès, « Hors collection », 2013, 187-204, DOI: 10.3917/eres.prete.2013.01.0187. URL: <https://www.cairn.info/penser-la-socialisation-en-psychologie--9782749236421-page-187.htm>.
- Michel-Guillou E., Weiss K., 2007. Representations and behaviours of farmers with regard to sustainable development: a psycho-environmental approach, *Sustainable development research advances*, Barton A. Larson Editor, 207-221
- Nettle R., Ayre M., Beilin R., Waller S., Turner L., Hall A., Irvine L., Taylor G., 2014. Empowering farmers for increased resilience in uncertain times, *Proceedings of the 5th Australasian Dairy Science Symposium 2014*.
- Rogers C.R. (Eds), 1942. *Counseling and psychotherapy: Newer concepts in practice*, Boston, Houghton Mifflin.

---

Salmona M., 1994. *Les paysans français : le travail, les métiers, la transmission des savoirs*, Éditions L'Harmattan, 371 pages.

Salmona M., 2010. Une pensée de l'action avec la nature et le vivant : la Métis et Jean-Pierre Vernant, *In* Y. Clot, D. Lhuillier (dir.), *Agir en clinique du travail*, Toulouse, ERES, Collection, Clinique du travail, février, 333 p., 85-202.

Torske M.O., Bjørngaard J.H., Hilt B., Glasscock D., Krokstad S., 2016. Farmers' mental health: A longitudinal sibling comparison - the HUNT study, Norway, *Scandinavian Journal of Work, Environment and Health* 42(6):547-556, doi: 10.5271/sjweh.3595, Epub 2016 Sep 16.

Van Dam D., Nizet J., 2015. Emotions: The discovery of an object and the development of a method, *Methods of Exploring Emotions*, Taylor & Francis, 134-143.