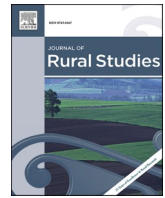




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Social (un-)learning and the legitimization of marginalized knowledge: How a new community of practice tries to ‘kick the grain habit’ in ruminant livestock farming

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ABSTRACT

This paper presents a qualitative case study analysis of the Pasture-Fed Livestock Association (PFLA), which seeks to ‘kick the grain habit’ in ruminant farming by promoting and certifying purely pasture-fed production systems. Reading through a social learning perspective, the article first traces back how this association has become established as a new and distinct community of practice (CoP). This entails attending to the process of forming a *joint enterprise*, the spaces that allow for *mutual engagement* between its members, and the *shared repertoire* that has been built over time. Thus, the paper draws on the three key characteristics of Jean Lave and Etienne Wenger’s (1991) conceptualization of communities of practice, which have become widely recognized for providing effective fora for learning and knowledge management, as well as for spurring innovations. More precisely, the paper connects with earlier works invoking this concept within agri-food studies and specifically seeks to contribute to the debates raised around the forms of knowledge that are shared within such communities and their members’ means of interaction that facilitate social learning. Secondly, and in direct relation to this theoretical framing, the paper makes an attempt to refine understandings of social learning. While this remains predominately associated with the acquisition of new knowledge, skills or technologies, the paper argues for a dialectical perspective, which pays equal attention to how people break with past practices. In other words, the paper highlights the role that unlearning plays within new CoPs such as the PFLA. Lastly, the paper explores the wider knowledge networks that are forged as the community matures and seeks to disseminate and legitimize its knowledge beyond its own boundaries. The empirical material of this case study will be useful to inform debates about the potential role that new CoPs can play in bringing marginalized practices, knowledges, and products to peoples’ minds and markets.

1. Introduction

David Brédart and Pierre Stassart recently made a noteworthy contribution to this journal by showing how the withdrawal of concentrated feeds in livestock farming can serve as an ‘*opportunity for farmers to change their relationship with the soil, plants, animals, and other human beings*’ (Brédart and Stassart, 2017, p. 1). Their study describes the learning trajectory of a Belgian livestock farmer towards feed autonomy and provides a corrective to more dominant conceptualizations about agricultural transitions. Rather than linear or sequential (Hill and MacRae, 1996; Wilson, 2008), the learning process of their “pioneer farmer” turned out to be much more messy and complex (see also Lamine, 2011). People he had met or events he chose to attend inspired him to experiment with new ideas on his own farm in a trial and error

fashion. Importantly, this stimulated an internal dialogue between himself and his own farming practices and resulted in constant tinkering and readjustments.

This article builds upon these insights but shifts the focus away from the individual to the collective learning dynamics of a group of like-minded farmers and supporters in the UK. The UK provides a particularly interesting context because here feed autonomy is on its way to become more than ‘*an umbrella for a set of diffuse and rather informal transition strategies*’ (Brédart and Stassart, 2017, p. 11). In fact, contrary to Belgium where ‘*feed autonomy is not a practice that is codified by terms of reference and overseen by a certifying body*’ and therefore also ‘*not part of a normative conversion approach*’ (Ibid.), exactly this appears to be the case in the UK. Here, the Pasture-Fed Livestock Association (PFLA) addresses the debate about the unsustainability of livestock farming. One

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particular concern constitutes the increasing competition between feed grown for animals versus food grown for direct human consumption (Eisler et al., 2014; Mottet et al., 2017). With its associated Pasture for Life food label the PFLA seeks to ‘kick the “grain habit”’ (PFLA, 2016a, p. i) in ruminant farming and thereby challenges industry norms and trends, which see a decline in grazing and an increase in concentrated feeds (Plant, 2018; Shortall, 2019). Its members have agreed upon a set of UK-wide standards for pasture-fed beef, sheep, lamb and dairy, which prohibit the use of concentrated feeds and stipulate that ‘grass and forage must be the [only] feed source consumed for the lifetime of the animal’ (PFLA, 2016b, p. 16). This is justified on the grounds of achieving a distinct product quality that is conducive – rather than harmful – to human health, benefiting the welfare of ruminant animals, and ensuring a number of environmental advantages.¹

The objective of this paper is to contribute to a better understanding of how transitions towards more sustainable livestock systems can be initiated through social learning and collective action. First, this implies to trace back how the PFLA has become established as a new and distinct community of practice (CoP). It entails attending to (i) the process of forming a *joint enterprise*, (ii) the spaces that allow for *mutual engagement* between its members, and (iii) the *shared repertoire* that has been built over time. Thus, the paper draws on the three key characteristics of CoPs (Lave and Wenger, 1991; Wenger, 1999), which have become widely recognized for providing effective fora for learning and knowledge management, as well as for spurring innovations (Brown and Duguid, 1991; Hildreth and Kimble, 2004; Wenger et al., 2002). More precisely, the paper connects with earlier works invoking this concept within agri-food studies (Carolan, 2011; Crowley et al., 2018; Dolinska and D’Aquino, 2016; Goulet, 2013; Matera et al., 2015; Morgan, 2011; Oreszczyn et al., 2010; Triste et al., 2018), and specifically seeks to contribute to the debates raised around the forms of knowledge that are shared within such communities and their members’ means of interaction which facilitate social learning. Second, and in direct relation to this theoretical framing, this paper makes an attempt to refine understandings of social learning in the context of agriculture and food systems. While learning in this field remains predominately associated with the acquisition of new knowledge, skills, or technologies, the paper argues for a dialectical perspective which pays equal attention to how people break with past practices. In other words, the paper highlights the role that unlearning plays within new CoPs such as the PFLA. Lastly, the paper explores the wider knowledge networks that are forged as the community matures and seeks to legitimize its co-constructed knowledge beyond its own boundaries. The empirical material of this case study provides rich insights in these respects and will be useful to inform debates about the potential role that new CoPs can play in bringing marginalized practices, knowledges, and products to peoples’ minds and markets.

2. Communities of practice, knowledge sharing and the notions of unlearning and legitimacy

2.1. Communities of practice

Put simply, ‘communities of practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis’ (Wenger et al., 2002, p. 4). The concept has its origins in learning theory and was first developed by social anthropologist Jean Lave and educational theorist Etienne Wenger (1991). It originally builds on ethnographic observations from a variety of apprenticeship studies, which showed ‘that apprentices learn mostly in relation with other apprentices’ and through ‘engaging in practice’ (Lave and Wenger, 1991, p. 93) – no matter

if the apprentices learned how to become midwives, tailors, naval quartermasters, butchers or non-drinking alcoholics. Thus, in contrast to conventional learning theory, which largely conceives of learning as an individual, separable, hierarchical, and abstract undertaking, Lave and Wenger were able to demonstrate that more effective learning takes place through participation in social groups that encourage learning through belonging, becoming, experiencing, and doing (see also Wenger, 1999). Such ‘situated learning’ (Lave and Wenger, 1991) is characterized by three dimensions that are essential to any CoP. They include:

- the possibility to negotiate and pursue a **joint enterprise** such as a common concern or a problem;
- **mutual engagement**, or the means and ways that allow community members to interact on a regular basis and to build meaningful relationships; and
- the development of a **shared repertoire** consisting of ‘routines, words, tools, ways of doing things, stories, gestures, symbols, genres, actions, or concepts that the community has produced or adopted [...], and which have become part of its practice’ (Wenger, 1999, p. 73).

This socio-relational re-conceptualization of learning has ever since attracted the attention of a variety of research fields including agri-food studies, where it was mostly discussed in relation to how farmers learn about more sustainable food production practices. Morgan (2011), for example, explicitly tested the merits of this concept by exploring social learning within different groups of organic farmers in Wales. He found that ‘farmers associate and engage in social learning more readily with peers determined by similar attitudes to farm business, farming styles and understanding of what organic agriculture entails’ (Morgan, 2011, p. 99).

This was also the case in Carolan’s (2011) study of small-scale, market-oriented agriculture(s) in the US. Mutual beliefs and assumptions allowed his protagonists to speak the same language, to build relationships with each other and to learn from one another through the sharing of experiences and knowledge. Similar insights also derive from studies about CoPs within the artisanal cheese sector in Ireland (Crowley et al., 2018), sustainable dairy farming in Northern Ireland and the Netherlands (Triste et al., 2018), but also from large-scale commodity growers involved in natural resource management in Sweden (Nykivist, 2014), or GMO crop trials in the UK (Oreszczyn et al., 2010).

2.2. Knowledge sharing within CoPs

The application of this concept to such diverse agri-food contexts – including potentially opposing visions of sustainable transitions (Marsden, 2016) – stands exemplary for a broader shift of interest that has moved away from linear models of knowledge transfer towards understanding, and indeed promoting, peer-to-peer knowledge exchange via distinct groups, networks, or projects (Blackstock et al., 2010; Klerkx and Proctor, 2013; Moschitz et al., 2015). At the heart of this paradigm shift rest assumptions and expectations that ‘emphasise the need for people to develop their own solutions to problems’ through the co-production of knowledge (Blackstock et al., 2010, p. 5633). CoPs are appealing in this context, because they promise participation, mutuality, and trust, which are particularly conducive for informal and practice-based learning as well as for sharing tacit knowledge. In contrast to explicit knowledge, tacit knowledge ‘is rather difficult to explain or express, as it encompasses both farmer’s skills and crafts and his mental models, ideals and values’ (Triste et al., 2018, p. 1428). In other words ‘we know more than we can tell’ (Polanyi, 1966, p. 4), and therefore tacit knowledge tends to stick with people, is embodied, and sometimes more-than-representational (Carolan, 2011, 2008).

How such sticky knowledge is made available within CoPs constitutes a key concern within the literature (Carolan, 2011; Goulet, 2013), as several commentators maintain that the diffusion of more sustainable farming practices hinges on such holistic and locally embedded

¹ For an overview about the benefits associated with pasture-based livestock production systems see: <https://www.pastureforlife.org/research/>.

knowledge (Šumane et al., 2018; Triste et al., 2018). Triste et al. (2018) contend that it either becomes available through socialization (e.g. through practice, observation, situated learning) or through externalization (i.e. converting tacit into explicit knowledge) (see also Hoffmann et al., 2007). However, these processes should not be seen as separate from each other but intrinsically linked, because ‘only by first spreading the practice in relation to which the explicit makes sense is the circulation of explicit knowledge worthwhile’ (Brown and Duguid, 2001, in Carolan, 2011, p. 131). The means of communication within CoPs and the spatial proximity between its members are therefore considered to be critical. Carolan (2011), for instance, maintains that face-to-face and tactile encounters between members of a CoP facilitate the exchange of sticky knowledge, whereas more distanced means such as web-based communication do not represent an adequate substitute. This leads him to distinguish between spatially proximate interactions within CoPs that produce embodied knowledge and networks of practice (see Brown and Duguid, 2001) that mostly operate indirectly ‘and produce little knowledge’ (Baalen et al., 2005 cited in Carolan, 2011, p. 136). To some extent, this also reaffirms the image of the internet-adverse farmer, but been experiential learner as echoed by the study of Oreszczyn et al. (2010).

However, rather than providing clear delimitations in term of depth and quality of social learning, non-virtual and virtual interactions can also be complementary and thus fruitfully combined to bridge the spatial disconnectedness of dispersed CoPs (Materia et al., 2015). This is particularly relevant in the field of agriculture, where the organizational framework is fragmented and weak (Materia et al., 2015; Oreszczyn et al., 2010), and where the CoPs concept is increasingly proposed as an intervention tool to counter this development in order to empower farmers (Dolinska and D’Aquino, 2016; Morgan, 2011).

2.3. The notions of unlearning and legitimacy

One aspect that remains absent in debates about CoPs is the idea that farmers do not only engage in social learning to acquire or adopt new knowledge, skills or technologies, but also to distance themselves or even break with past practices, routines, and beliefs. This absence is not surprising because ‘the notion of unlearning appears counterintuitive’ (Pedler and Hsu, 2014, p. 298). It is not positively charged as the concept of learning (Ibid.), and yet it can be equally transformative as Lave and Wenger have implicitly demonstrated themselves in their empirical work on ‘becoming a nondrinking alcoholic through Alcoholics Anonymous’ (Lave and Wenger, 1991, p. 79). To be clear, I do not want to compare alcoholism to farming, but certain dependencies on unsustainable practices are indisputable and perhaps they can be more easily overcome through collective unlearning within new CoPs.

Unlearning as a concept derives from organizational theory and was recently introduced to environmental studies. Herein, it was primarily applied to wicked problems² and described as ‘an essential phase in reaching transformation because it makes space for learning’ (Nygren et al., 2017, p. 474). Although this suggests a rather mechanistic understanding – one in which old knowledge first needs to be intentionally discarded, before new learning can set in – others see it as a parallel process (Becker, 2005), that holds radical potential. Drawing on Chokr (2009), Pedler and Hsu (2014, p. 297) state:

‘Combining this with the Foucauldian understanding of power and knowledge enables a more radical view of unlearning as a capacity which encourages individuals to be reflexive of themselves as socially constructed entities within relations of power, and which inspires knowledges that are currently marginalized or repressed.’

² Wicked problems describe problems that are difficult or even impossible to solve. For a useful overview see Peters (2017).

Thus, unlearning holds the potential to recognize prevailing power relations and consequently engage in a conscious re-shaping of the dominant discourse through collective action: sharing their knowledge not only internally, but also beyond the boundaries of the CoP with strategically chosen representatives of the dominant knowledge regime may provide opportunities to de-marginalize and legitimize the community’s knowledge. As Rossi and colleagues (2019, p. 149) recently pointed out: ‘Legitimacy, embedded in social structures, is at the basis of actors’ discursive power and reframing ability’; it is ‘informing the normative approaches driving policies and practices’; and ‘as such, it appears as a pre-condition to creating alternative agrifood models’. Hence, with their ability to foster unlearning and the legitimization of marginalized knowledge CoPs may confront what Carolan (2006a) describes as epistemic barriers, that stand in the way of alternative practices, world views and behaviors, and which constitute a particular concern with respect to transitioning towards sustainable agriculture.

In what follows, I will apply the CoP concept to the PFLA to describe how a new community based on purely pasture-fed farming practices has become established in the UK. This will be followed by a discussion about the success factors that were essential in stimulating social (un) learning processes, enabling the exchange of sticky knowledge and disseminating the community’s knowledge beyond its own boundaries. However, first a few words about the research approach are pertinent.

3. Methodology

Data for this article was gathered between 2017 and 2019 as part of a social-anthropological research project on New Directions in Agri-Environmental Governance.³ While the UK was deliberately chosen as one of the sites to explore this topic, it was neither expected to come across the PFLA nor planned to study it in-depth, or with any specific theory in mind. In the true spirit of grounded theory (Charmaz, 2006) and ethnographic fieldwork, I stumbled upon this case after several months in the field during an interview with a project officer of an environmental charity. Melanie, my respondent, was reflecting about her work with farmers and the challenge to strike a balance between conservation objectives and productivity through a focus on food quality, when a particular farmer sprang to her mind, who she thought would be of interest to me. In her words:

‘Oh, I’ve got a good farmer for you to go and visit. There’s a guy called Nick [...] in [place name]. It was arable land and it wasn’t being productive [...] I think they had potatoes, and just year after year [...] the crop was failing. [...] so Nick said: Right I think we should buy loads of wildflower seed [...] he ordered loads of seed and just spread it [...] It’s not species rich rich,⁴ but it’s got a lot of nice wildflower species in there. And he says the cattle are so much healthier because of all the nutritional benefits and then he sells the meat as part of this pasture-fed thing.’ (Melanie)

This ‘pasture-fed thing’ turned out to be the PFLA and Nick turned out to be one of its founding members. After interviewing him about his involvement with the PFLA, I decided to explore this case further and to follow its developments alongside another case study that I was working on as part of the overall research project.⁵

This follow-up included semi-structured interviews with three key informants including two PFLA farmers as well as the chairperson of the association. It was the latter’s repeated emphasis on the ‘sense of community’ and the ‘loving generosity’ that he felt existed within the PFLA, that initially struck me as something unusual during the interview.

³ For more information see: <http://p3.snf.ch/project-157414>.

⁴ The original statement contains the word *rich* twice to emphasise the level of species diversity from the respondent’s perspective.

⁵ The other case study explored partnership working in the context of agricultural diffuse pollution.

However, it was only after discussing some of the case material during an academic workshop that the CoP concept was brought to my attention.⁶ Building rapport with the chairperson allowed me to obtain access to around 50 internal documents. These include, among others, the minutes of meetings, annual reports, the company's act, various PowerPoint presentations and PFLA reports. While a closer examination of these documents provided rich insights into the historical development of the association, I also wanted to be able to say something about the current developments. For that reason, I decided to conduct participant observation including a multitude of informal conversations at nine events and farm walks, that were either organized by the PFLA or by other organizations, which invited PFLA farmers to give public talks about their work. This way I got to see and hear about the pasture-fed stories and farming styles of additional PFLA farmers.⁷ Lastly, I decided to become a member of the PFLA myself since '*membership is open to anyone – not just farmers*' (PFLA, n.d.-a). This also gave me access to the online forum of the association, which constitutes a particularly valuable data source for understanding how the group works and what kind of information and knowledge circulate amongst its members.

The PFLA Google Group functions as an e-mailing list and encourages its members '*to share knowledge, experience and thoughts with each other in relation to grazing systems championed by the PASTURE FOR LIFE certification mark*' (PFLA google group description; emphasis in original). With over 2500 discussion threads the topics covered over the years are vast and range from technical advice to political and socio-economic matters of concern. Accordingly, key debates revolve around the management of farms and pastures. Other recurring topics include soil, climate change and carbon sequestration, or the sales and marketing of pasture-fed meat and dairy. Members also find it useful to share information about certain events and books, or their opinions about politically sensitive issues such as veganism or the use of glyphosate. The contributions in the forum represent genuine accounts of personal opinions and information that has been shared between peers, without a moderator or me as the researcher leading the discussions in any particular direction.

While undertaking ethnographic research online, I did not introduce myself as a researcher to all forum members for a number of reasons: First, access to the forum is in principle open to anyone willing to join the association. It is thus well-known that there are a range of passive observers from various organizations and backgrounds. Second, '*the state of flux in which web sites, blogs, forums, and social networking sites operate "defies conventional research methodologies"*' (Toulouse, 1998, p. 6 cited in Murthy, 2008, p. 849). In this case, had I introduced myself it would have hardly fulfilled its purpose as it would not have been noticed by more than a few members at the time before getting lost amongst hundreds of other entries. Third, '*the uniquely unobtrusive nature of the method [digital ethnography] is the source of much of its attractiveness and its contentiousness*' (Kozinets, 2002, p. 65). With this, of course, comes an ethical responsibility to protect the research subjects and respondents, as well as to consider my representation of their interests. To avoid potential harm, I use pseudonyms throughout this paper, except for instances in which someone was acting in a public capacity. Nevertheless, I have chosen to provide some farm details to give the reader an insight into the types of farmers involved in the PFLA. Given that the material presented herein is not of a highly contentious nature and the research subjects do not constitute a particularly vulnerable group, this level of anonymization was deemed sufficient. I did, however, seek and gain permission from individual members to reproduce their images shared in the forum for the purpose of this research. Furthermore, I obtained informed consent and explicit support from the chairman of the PFLA to conduct my research and to utilize their resources. I also introduced myself as a researcher during PFLA farm walks and events and gained

informed consent from all interview partners.

I would contend that this ethnographic research approach based on key-informant interviews, document analyses and participant observation has put me into the position to learn about the past, the present, the physical and the virtual world, in which the members of the PFLA have been operating. Most importantly this allowed me to anticipate some of the difficulties that arise from wanting to understand CoPs in actual practice and to represent forms of knowledge that are sometimes '*more-than-representational*' (Carolan, 2008, p. 408). In particular: If more effective learning takes place through engagement and practice within certain communities (as stipulated by Lave and Wenger, 1991), then doing research about this phenomenon ought to be more engaged, if not also practiced. Otherwise, the processes and depth of learning and un-learning cannot be fully captured, appreciated, and adequately represented in research outputs. Thus, by enrolling myself within the PFLA, I was able to follow the conversations and to learn about the multitude of aspects that make this particular CoP what it is. A more distant approach built on interviews or surveys alone would not have allowed me such an emic perspective.

Similar considerations also apply to how one represents something that is difficult to represent. On this second issue Carolan (2008, p. 412) reminds us that: '*we cannot literally feel in these pages what respondents truly experienced in their lived experience. But this does not mean that we cannot at least get a taste of their world through their words.*' This is exactly what the remaining sections of this paper seek to convey as well and why I have chosen to let the protagonists speak with their own voice to showcase the tone and quality of interaction within the community. In addition to people's words, I also believe the context (e.g. online or offline) and circumstances under which they become formulated (e.g. vis-à-vis fellow farmers or myself as a researcher) are of relevance, as well as any other means of expression used to either transmit lived experiences or pick other people's brains for their sticky knowledge.

4. Cultivating a new community of practice: the story of the PFLA

According to its longstanding chairman, John Meadley, the story of the PFLA dates back to November 2009, when he ran into two livestock farmers during a Transition Farming conference in Exeter. At this meeting the three men shared a cup of tea and discussed '*the absurdity of using half the world's grain to feed livestock*' (PFLA, 2011a) and the possibility to rely solely on grass and pasture instead. While the trio met by chance, the topic they came across was no coincidence. As a development aid practitioner working in poor and post-conflict countries, John Meadley felt that it was bizarre and immoral to feed vast amounts of grain to animals as long as there was poverty and hunger.⁸ With John Turner and John Crisp, he came across two livestock farmers who shared his concern and who proved – through their own farming practices – that raising animals fully on pasture was indeed possible. It was this chance encounter that resulted in a commitment to do something about it, and what followed from this has had important implications: It marked the beginning of a new CoP based on purely pasture-fed livestock farming, which will be described in the following by referring to the three key characteristics as proposed by Lave and Wenger. Moreover, many of the empirical examples within this section serve the dual purpose of underpinning the analysis of the success factors of the PFLA in Section 5.

4.1. Creating a joint enterprise

To pursue their common concern, the trio first setup a google discussion group to share ideas and to enable a '*further refinement of the Pasture-Fed term*' (PFLA, n.d.-b). Next a physical meeting was called in January 2010 to see if other people shared their interest. According to

⁶ I thank Michael Carolan for introducing me to this concept.

⁷ Conversations at these events were either partially audio-recorded or quotes were noted down on site.

⁸ Pers. communication, John Meadley, Ryeford, 7 July 2017.

the minutes of this first official meeting (PFLA, 2010a), 14 people attended including eight farmers and one butcher. At this meeting John Crisp outlined the benefits of grass-fed livestock for human health, animal health and the environment, which was followed by a discussion around these issues. The group

‘agreed to focus on those benefits where the supporting science is sound and where we are walking on solid ground. This should provide the basis of future promotional material and also identify those areas where more work/research is needed [...] John Crisp agreed to lead this process, in consultation with others, and to produce a draft before Easter for electronic discussion.’ (PFLA, 2010a, p. 1)

John Turner introduced the second point on the agenda, which was dedicated to finding a common definition of grass-fed products. To launch the discussion, he referred to the American Grass-Fed Association, which had introduced its standards and definition in the year before. Consequently, the

‘Discussion revolved around issues such as the definition of forage, non-grass feed, artificial inputs, over-wintering, traceability, certification and assurance. It was agreed in principle that, as is the case in the US, the standards should be set high – with potentially a second tier for those who may be in the process of transition. John Turner agreed to prepare some draft standards, in consultation with others who are interested, for subsequent electronic discussion.’ (Ibid.)

Apart from these two key points the participants on that day decided to identify like-minded groups as well as potential funding streams, which would allow them to arrive at common standards, a brand, and ‘products in the shops supported by attractive and scientifically-sound promotional literature’ (PFLA, 2010a, p. 2) within 12 months’ time.

Another important decision was to remain non-judgmental and inclusive, which signals a desire to avoid any boundaries that have come with earlier niche market developments, namely organic farming. This meant that the group agreed early on

‘that farmers producing pasture-fed products should not be required to be certified as organic, as this could discourage some farmers who

farm responsibly but do not wish to be formally “organic” – and also because organic farmers are not required to be pasture-fed, with many such organic beef farmers utilising significant levels of grain in the feed.’ (PFLA, 2010b, p. 4)

This premise is also reflected in the overall objective of the PFLA and has become enshrined in the legal act underlying the association’s registration as a community interest company in 2011. Herein, the PFLA’s role as an inclusive learning community is explicitly stressed:

‘The objects of the Company are to carry on activities, which benefit the community and in particular (without limitation) to Pasture-Fed systems of farming and production. Recognising that the feeding of livestock wholly on pasture is part of a wider movement towards the development of farming systems that are sustainable in the long term, the Company will seek to engage with other organizations that share this vision, to learn from them and to share the knowledge, experience and information that the association generates over time.’ (PFLA, 2011b, p. 5)

The choice to incorporate the association as a non-profit community interest company carries symbolic weight towards that end, as it allows a sense of shared ownership over this agenda.

Other milestones considered important by the PFLA are presented in Fig. 1 and include, for example, the introduction of joint production standards, a QR code traceability system, the Pasture for Life Certification Mark, and the setup of an office in Cirencester in 2016. Over the course of these developments, the PFLA has managed to gradually increase its member base. The association grew from 21 members in 2011 to 506 members in 2019, including 93 certified meat producers (of which about 60 percent are also certified organic), 33 farm butchers, five independent butchers and four dairy outlets (PFLA, 2019). The remaining members are made up of individuals including consumers. Pasture for Life products can be purchased in certified retail outlets or from famers, via direct sale, farmer’s markets or mail order. The PFLA website provides an overview about retail outlets and detailed information about producers. It is worth pointing out that the development and running of the organization was achieved on a minimal budget. In fact, in its latest annual report the PFLA (2019, p. 11) describes itself as a

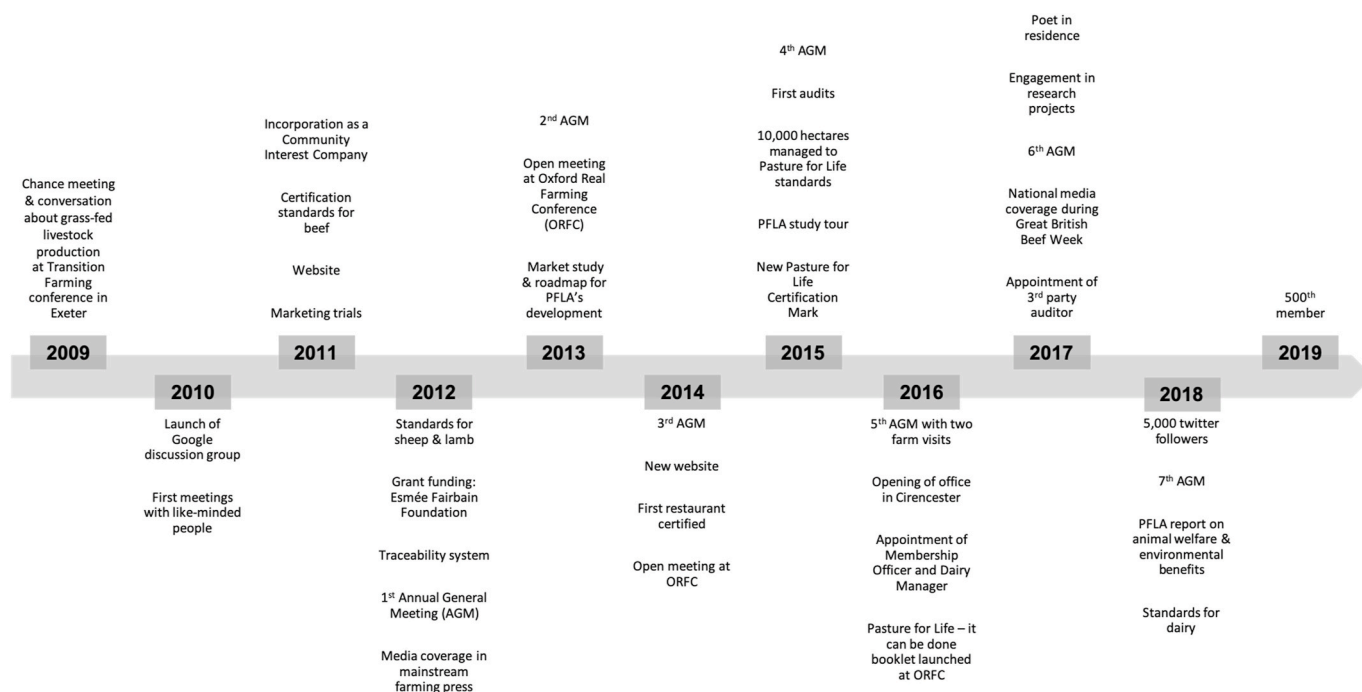


Fig. 1. Timeline showing the major milestones in the development of the PFLA. Source: PFLA (n.d.-b).

'low-cost operation' due to an annual average expenditure of just over sixty thousand pounds since the company's incorporation. The association has relied on voluntary work and managed to secure grant funding from charitable organizations. Its main income is generated through the annual membership fees of GBP 100 per member and a sales levy of five pounds per slaughtered beef and 50 pence per lamb (PFLA, n.d.-c).

4.2. Nurturing mutual engagement

One aspect that clearly stands out in the backstory of the PFLA are the different means of communication used to create the association. From the beginning we saw a heavy reliance on 'electronic discussions' in addition to a few physical meetings each year. Accordingly, this section first illustrates how the online forum facilitates knowledge sharing, before describing the community building contributions of non-virtual encounters. At the same time this subsection does not only want to show how this mutual engagement becomes established (i.e. online or offline), but also the quality and nature of the exchange, which fundamentally contributes to nurturing this CoP.

4.2.1. Virtual encounters

The google group has become a valuable asset for the association. PFLA members regularly emphasized its benefits during public presentations and interviews. Indeed, gaining access to the forum was frequently mentioned as a key motivational factor to join the association in the first place. This is evident from the discussion thread 'Introductions', which invites 'all new members [to] briefly introduce themselves when they are ready' (Membership Secretary, September 07, 2014). Herein John and Steve, for example, ended their introductions with the following remarks:

one of my main interests in this forum will be to pick the brains of those of you who have made their systems work on grass (John, 14 November 2018)

A slightly late introduction I know, but I have found this group really helpful over the past few months and it is obviously a fountain of knowledge! (Steve, 17 October 2018)

To illustrate this 'fountain of knowledge' and the ways in which members pick each other's brains, a discussion about the unusual dry spell during spring and summer 2018 serves as a case in point. The general manager of the PFLA raised this issue on 5 July by asking the farming members how they were 'Coping in the dry weather'. In his words:

I've spoken to a few farmers this week who are beginning to get a bit desperate for some rain, even in usually wet places like Cumbria. I thought it might be worth sharing any top tips for how you are coping, what contingency plans you've put in place or how you've adjusted your grazing management? (General Manager, 5 July 2018)

His inquiry hit a nerve and resulted in 34 posts from 20 different members over the course of the next few days. Jeremy, a farmer from Hampshire (2500 acres; mixed farm), was the first to respond and he had to concede that the dry weather defeated all his plans. He explained: 'Hi [...]. Good idea to post now, I've had to ditch all my pasture fed aspirations and start feeding grain' (Jeremy, July 5, 2018). Other members were more fortunate than that or perhaps better prepared as the next response from Ben, an organic farmer from Devon (251 acres; beef, pigs & vegetables), shows:

'top tips for me. Decided in April, after wettest winter for some time, and the likelihood that the chances that weather for the summer would likely be an extreme, were high to buy extra grass keep. So we have 10% increase in grassland [...] this allows us to have more acres grazing and more acres for conservation. cut back on the ploughing acreage. 50% cutback in Spring Barley acreage. keep the best grass available for those animals closest to being fit for abattoir [sic] so as

to get them off farm ASAP. mob grazing works well for us in dry conditions. Any moisture in the soil lasts longer on grass that [is] 2–3 foot tall and the trampling effect helps as well.' (Ben, 5 July 2018)

This was also echoed by several other commentators who either posted further tips and information sources or reminded the group of the benefits of meticulously planned grazing systems. Joanne, a smallholder farmer from Shropshire (70 acres; organic; beef, sheep and micro dairy) and a key contributor to the forum,⁹ posted a detailed explanation about the need to measure grass growth continuously in order to avoid overgrazing. She shared her way of going about this with the help of a picture (Fig. 2), that shows her fields subdivided into small plots.

Joanne, who was also interviewed for this research, follows the principles of holistic planned grazing (see Savory Institute, 2015), which involves moving her herd (or mob) of pedigree Herefords on a regular basis (often daily) from one plot to the next. According to her, this ensures a more even distribution of manure and utilization of forage, which she keeps track off with the help of a plate meter that measures the dry matter of pasture per hectare. The picture shows the current cover as well as the residual cover that was still available when she moved the mob onto the next patch. This allows her to observe and plan grazing with the growth rate in each of her fields. The sharing of such detailed information was immediately acknowledged by other readers. Brian from Lincolnshire (63 acres; in organic conversion, beef, sheep and pigs), for example, remarked:

'This is very interesting and thought provoking for an engineering mind like mine! I just wanted to thank you for sharing this level of detail with the group. This is excellent and very much appreciated.' (Brian, 8 July 2018)

The urgency to discuss coping strategies and the insights that participants were hoping to draw out from it also becomes clear in a later post from Graham (Lancashire; 1100 acres; organic; beef and sheep), who had to resort to contingency measures:

'We have just baled our first fields after negotiating a derogation [...] to break the 15th July start date. On average our crop is down by 75–80% in terms of yield and maybe similar in terms of quality, although I've not had this checked yet. Which is why I'm reading forum posts at 4.30am.' (Graham, 10 July 2018)

While this statement highlights the importance of the forum as a go-to resource, more senior members tried to reassure the rest that the lack of rain is nothing to be overly concerned about because they had experienced and handled worse situations: As William from Pembrokeshire (160 acres; organic; beef) recalled: 'We [...] survived the 1976 drought and it was far worse than this year, we have a long way to go before replicating 76' (William, July 8, 2018). This was also seconded by Bill from Dorset (110 acres; organic, dairy) who – like William – provided some of his earlier crisis-proven tips including the use of trailers and sheets to provide shade for the animals.

Thus, reassurances like this were thought to be equally helpful as the sharing of detailed technical knowhow. Several other members for instance resorted to taking pictures of their own fields to show everyone how their current grass situation looked like (Fig. 3). One of them was Ted from Hertfordshire (2500 acres, arable & beef) who explained:

We are slightly under-stocked [...] good year to pick. But by dint of leaving a good proportion of the grass ungrazed at each pass (i.e. moving the mob through quickly) and allowing plenty of time to recover, it is amazing how much regrowth you can get even when you can barely tread an electric fence pole in the ground because it's

⁹ With 388 posts since joining the PFLA in November 2014 Joanne ranks on 2nd place of all-time contributors to the online forum.



Fig. 2. The picture shared by Joanne to illustrate her grazing management during the dry spell of 2018.

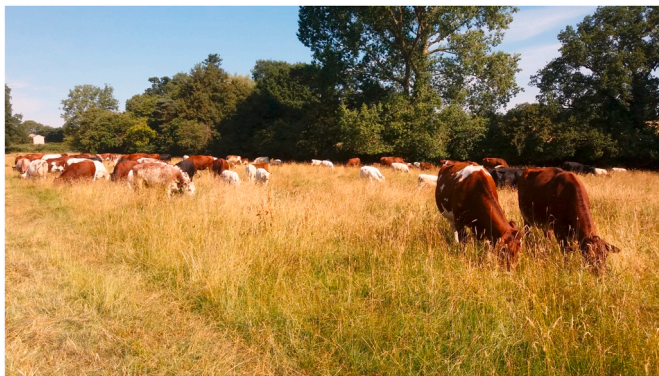


Fig. 3. The picture shared by Ted in the discussion thread ‘Coping in the dry weather’.

so dry. Photo of main mob yesterday. Field last grazed 15th may. (Ted, 18. July 2018)

Again, this helped others to regain confidence that they were on the right track with their own farming practices. This is well encapsulated in the last comment of the discussion, which comes from Sue, an organic farmer from Kent (175 acres; beef, sheep and poultry). She replied:

‘Dear Ted, That is such an encouraging picture! We have just started mob grazing this year [...] I have been telling myself that our mob grazed fields will come back a lot quicker than the rest due to this residue’ (Sue, 18 July 2018)

4.2.2. Non-virtual encounters

In contrast to the online forum opportunities for non-virtual encounters are far more limited due to the geographical distance between most members, everyone’s time constraints and different financial capabilities. However, this is not to say that such occasions are of inferior value when it comes to nurturing mutual engagement and social learning. Each year the PFLA organizes a few farm walks in connection with the annual study tour and the Annual General Meeting (AGM). Furthermore, thematic days have been held in the past in partnership with other organizations (e.g. British Ecological Society) or were self-organized by some members, who were keen to explore certain aspects of pasture-fed farming in the field (e.g. soil monitoring).

What is noteworthy about these on-farm events is that they uphold

the same spirit of peer-to-peer learning that also characterizes the interactions in the online forum. Neither did PFLA staff members introduce host farmers as “best practice” examples or “demonstrations farms” – which is otherwise common practice within the agricultural industry¹⁰ – nor did the hosts present themselves as experts. On the contrary, hosts often began their farm tour with remarks about the many mistakes they still make. For example, during one such occasion aforementioned Ted from Hertfordshire began his tour with the following statement:

‘The main mob, which is about 200 animals, is just over there. We’ll wander and have a look. We’re mob-grazing them. Erm ... Eh ... Ah ... Argh ... We’ll see what you think. I’d be very interested to know! There are a lot of professional mob-grazers here and we’re probably doing it completely wrong.’

While his worries earned him many laughs, such understatement helped to engage the audience as equal partners. Thus, rather than patronizing others with their knowledge and achievements, the hosts tended to shift the focus on their personal learning trajectories and the challenges they still face. This usually resulted in open and genuine dialogue, in which the hosts benefitted from the feedback as much as the participants from gaining comparative insights.

Moreover, such on-farm events made different approaches to pasture-fed farming more understandable and tangible. During another occasion in Gloucestershire host farmer Bill, for instance, explained that it was his hobby of wildlife photography that led him towards pasture-fed farming: His journey had begun 12 years earlier, when his desire to see more wildlife on his farm coincided with his frustration over ‘marginal arable yields’ and the realization that the land on his farm ‘probably should have never been ploughed in the first place’. He opted out of intensive arable farming and moved from ‘greening around the edges’ to ‘tackling the central problem of making the whole farming system intrinsically wildlife friendly’. For him this meant planting wildflower meadows and herb-rich leys; introducing a herd of pedigree Hereford cattle; converting to organic farming; as well as certifying and directly selling his pasture-fed meat. During the farm walk Bill led his audience over his meadows to inspect and discuss the various species of plants and called on everyone to help him move his cattle from one mob grazing field to the next. Participants examined the health of his soil through touch and

¹⁰ This is based on my own observations from participating in farm walks of other organizations in the UK. For similar insights about the nuances and differences between field days in conventional agriculture versus sustainable agriculture see also (Carolan, 2006b).

smell and could finally savor the flavor of his meat during a communal lunch.

Beyond the farm-level physical meetings are also used by the PFLA to engage with people outside of the CoP itself. Previous AGMs, for instance, saw a welcome message by the Minister of State for Agriculture, Fisheries and Food, a talk by the director of Rothamsted Research (the world's oldest agricultural research station), and a keynote presentation by the Chairman of the Natural Capital Committee (a government advisory committee). Moreover, the PFLA has held meat tasting events to attract the interest of chefs, food bloggers, and food festival-goers. During these latter events, participating PFLA farmers tell the audience background stories about the lamb, hogget, mutton or beef that is going to be tasted, which informs the discussions and culinary assessments in important ways. During one of those events in London, aforementioned Nick, for example, supplied an

'eight-year-old sheep [that] had successfully given birth seven times in her life. But she had come to the point where she had lost all of her teeth, and was unable to graze. She too had only ever eaten herb-rich meadows all her life, self-medicating when she needed it and taking in the minerals and trace elements the deep-rooted plants had drawn up from the soil.' (PFLA, 2017)

With this in mind consumers were challenged to think about the impact that livestock feed, soils, grasslands, breeds and animal-welfare conditions have on the multiple qualities of meat including its taste, flavor and texture.

At another event, consumers have described the terroirs of different meats as varied as 'rugged' and 'stoney'; 'soft', 'subtle', 'buttery' and 'caramelly'; or 'rich', 'herbal', 'rounded' and 'nutty' (PFLA, 2016c); which for some was surprising:

'To be honest I wasn't sure there would be a difference between the four – but I was wrong. There was so much difference between the raw and cooked shoulders. Each one tasted fantastic – but fantastic in its own way – reflecting very much what it had eaten throughout its life; each had its own 'terroir'.' (PFLA, 2016c)

Here we see that the meaning of meat is changing as it becomes augmented by an understanding of the unique conditions that contribute to the taste of each and every animal.

4.3. Developing shared repertoires

Taken together such virtual and non-virtual interactions have allowed PFLA members to create and shape a shared repertoire. Over the years this repertoire has grown and become very diverse. It includes symbols (such as the certification logo), gestures (such as a minute of silence prior to each AGM), words (such as 'craft meat') and ways of doing things (such as mob grazing) that determine the PFLA's collective identity. Two central elements of this shared repertoire are the production standards, which the founding members have jointly agreed upon, as well as evidence reports that synthesize the knowledge held within the group. The following subsections examine these two elements in turn.

4.3.1. Pasture for Life standards

Contrary to what one might expect, the Pasture for Life standards contain a significant degree of freedom. The 56-page strong standards document consist of 'Required Standards' that must be met in order to become certified and 'Recommended Standards [which] say that something "should" be done' (PFLA, 2016b, p. 7). This unorthodox combination of prescription on one hand and optionality on the other hand is intended to ensure compliance with the strict grain-free feeding regime while

providing farmers with freedom as to how they wish to achieve that.¹¹ It can thus be understood as an expression of trust into the abilities and skills of each farmer. After all 'the Certification Standards relating to production have been developed by farmers who have successfully refined their own pasture-based farming systems' (PFLA, 2016b, p. 14), emphasizing herewith both their adaptive capacity and the biological boundaries of each farm, which ultimately set the limits for the number of animals that can be fed on pasture alone. Consequently, the stocking rates, for example, are left to the discretion of each farmer:

'The number of livestock should be properly matched to the capacity of the grassland and the soil conditions. The PFLA recognises that in practice, the sustainable stocking rate is as diverse as the grassland and as such the figures set out [...] are for guidance purposes only.' (PFLA, 2016b, p. 16)

Similarly, specialist grazing techniques such as mob grazing are not mandatory, but strongly encouraged so that farmers can improve their performance and reduce their reliance on external input such as supplementary feed, chemical fertilizer, pesticides, or antibiotics. In practice this has led to various interpretations and management approaches as discussions in the online forum or during farm walks revealed: Depending on personal circumstances and priorities some members such as Peter follow the principles of mob grazing very closely.

I have been mob grazing for 5–6 years or so [...]. The paddocks are split up into lanes approx. 50 m wide [...]. The cattle are moved at least 2x daily some times more depending on grass cover, conditions underfoot and what i am trying to achieve with pasture fertility (trampling) or cattle dry matter intake. Stocking density at grazing regularly hits 120 000kg / hectare fantastic system don't know how high the production ceiling is and fertiliser, pharmaceutical, machinery dealers have very sparse pickings from the enterprise. (Peter, online forum, 15 April 2016)

Others like Sandy keep their flock of sheep and herd of cattle 'together in a 'fjord' [and] give them 2–3 days worth of grazing units' (Sandy, online forum, July 25, 2017) so that they have more space and time during lambing and calving. And yet others cannot or do not want to commit to one single grazing technique and instead practice all sorts of methods including holistic planned grazing, rotational grazing, set stock grazing and strip grazing in order to cope with the conditions of eight different locations spread across a single farm enterprise (George, PFLA farm walk, October 2017).

As such the standards can be seen as a framework that provides orientation and encourages learning by doing to guarantee the applicability of pasture-based farming across diverse farming environments in the UK.

4.3.2. Evidence reports

Demonstrating the feasibility of pasture-fed farming vis-à-vis non-members has become part of the shared practice, too. In order to trigger interest in pasture-fed farming and to actively contribute to a stronger evidence base around its merits the PFLA has begun to gather its own evidence. A case in point is the promotional brochure 'Pasture for Life, it can be done – The farm business case for feeding ruminants just on pasture' (PFLA, 2016a). The steps involved leading up to its publication illustrate the collective efforts that go into co-producing community knowledge. First, the chairperson sent around a simple word document in 2014 to 12 farming members, who were willing to provide input. This small survey included closed and open-ended questions about the characteristics of each farm, the farmer's pasture and livestock management practices, and their results realized from raising ruminants wholly on pasture. In a second step the collected information was then

¹¹ Pers. communication, John Meadley, Ryeford, 7 July 2017.

summarized to highlight common features and benefits¹² (Table 1).

This exercise underlined the feasibility of pasture-fed farming in a variety of contexts. Accordingly, pasture-fed beef and sheep could be produced in different counties, on small and large farms, organic or not, on different soil types, with different grazing systems and different breeds. However, it did not provide any robust information about the economics, apart from surprise about the profitability. The logical consequence therefore was to engage in benchmarking to see how this anecdotal evidence fared against the hard figures of the industry. For that purpose, eight PFLA farmers subsequently engaged with consultants of the AHDB Beef & Lamb Stocktake costing service to compare their financial and performance data with the benchmark figures for 2015.

‘The results show that producing beef and lamb on 100% pasture and forage crops can be done and can be profitable. By selecting the right breeds with the most suitable genetics, coupled with good grassland management, Pasture for Life farmers can rival and exceed the performance achieved by the top third of producers.’ (PFLA, 2016a, p. 1)

Those arguably more authoritative results were then presented in detail in the aforementioned brochure, which was officially published at the Oxford Real Farming Conference 2016. According to the chairman this document proved to be pivotal in winning other livestock farmers over to consider conversion to purely pasture-based systems and to eventually join the association.

5. Exploring the success factors of the CoP

Overall, the insights gained from applying Lave and Wenger’s (1991) analytical framework to the case of the PFLA as illustrated in the previous section have been useful to retrace the evolution of this new CoP. As in the case of Brédart and Stassart’s (2017) Belgian livestock farmer, feed autonomy and purely pasture-fed livestock systems were only advocated by a few individuals, who were largely unaware of each other and not gaining much recognition for what they did. In the UK this has begun to change with the formation of the PFLA. The association has linked up like-minded people, pooled and formulated their shared interests, and quite literally created ‘a “grass roots” movement’ (Perry, 2014), that has greatly improved the viability and visibility of pasture-fed farming and pasture-fed products. This puts the success

Table 1
Summary of internal survey results. Source: PFLA (2014).

Features	Benefits
1. Low cost	1. Benefits biodiversity
2. Fits in with Higher Level Stewardship agreements	2. Healthy animals
3. Minimal labour input	3. Healthy environment.
4. Healthy stock	4. Healthy end product.
5. No wormer/fertilizer cost	5. Answering customer’s concern
6. Maintain herd fertility	6. Reconnection with customers
7. No brainer on hill farm	7. Gives pride in what we produce
8. No reduction in growth rates since dropping grain	8. Tastes good
9. Increase in soil health	9. Feeling happy and satisfied
10. Cattle/sheep suit type of farm/ grazing and vice versa	10. Very tender lamb produced
11. Surprised at profitability	11. Grass fed cattle outperforms cereal fed cattle profitability
12. Keeps it simple	12. Nutrient dense meat

¹² The distinction between the categories ‘features’ and ‘benefits’ might appear somewhat arbitrary. However, they were chosen by the PFLA to represent their data in the original source.

factors at the center of attention that have proven to be critical in the development of this specific CoP, as well as for engendering transitions towards more sustainable agri-food systems more generally.

5.1. Stimulating social un-learning

First, new CoPs such as the PFLA hold the key to undo certain practices that stand in the way of transitions towards more sustainable agri-food systems. We should therefore not only conceive of social learning in an acquisitive sense. Whether we take the online forum, the farm walks, the Pasture for Life standards or evidence reports, any of these community features allow its members to learn about innovation in livestock farming as well as to unlearn more dominant farming practices. Thus, as noted by Brédart and Stassart (2017) or more recently in Padel et al.’s (2019) study on UK farmers’ transition pathways towards agro-ecology, farmers’ learning trajectories never involve ‘a simple switching from one way of farming to another. Rather farmers were unlearning conventional expectations by doing cognitive work on themselves, before and during a practical change’ (Padel et al., 2019, p. 22). In the case of the PFLA it is again mob-grazing that serves as a good example to illustrate this cognitive work and the dialectic learning and un-learning challenges that accompany it. Mastering this practice can take several years and initially requires letting go of old convictions. As one PFLA farmer and experienced mob grazer explains in a blog entry dedicated to this topic:

‘Mob grazing may give the impression that forage is wasted by being trampled or left until [too] tall to graze. Getting over this conventional view can be quite challenging, although [...] you’ll soon see the benefits.’ (Page, 2015)

According to the proponents of this practice it is exactly this trampling of forage in combination with longer recovery periods that contributes to the built-up of new organic matter, improves soil health and moisture retaining capabilities, helps to store carbon, increases biodiversity, and eventually leads to better pasture re-growth. However – as with most sustainable farming practices – this contradicts the logic behind conventional grazing practices and it takes time for the benefits to materialize and become visible (Carolan, 2006a). Hence, during the transition phase farmers are faced with a lot of uncertainty, which can create a psychological barrier and an internal struggle to part with what was previously practiced and accepted to be true.

Such challenges exist with many of the PFLA’s recommendations – be that the advice to select traditional rather than modern breeds of sheep and cattle, to use nitrogen-fixing legumes instead of artificial fertilizer, to plant herbal leys as a remedy for self-medication, or to milk only once-a-day instead of twice. This last practice was described by one of the few pasture-fed dairy farmers as ‘the antithesis of the high input, high yielding, intensive systems of mainstream dairying in the UK today’ (PFLA, n.d.-d). The withdrawal of energy-dense concentrated feeds prohibits the use of modern dairy cows and instead dual-purpose breeds become attractive again. Even though they realize lower yields, this practice can still be viable due to a higher content of milk solids, potential premium prices in niche markets, and less labor and stress for the farmer as well as the animal.

Unlearning in these contexts therefore often implies distancing oneself from the productivist principles that remain deeply associated with good farming ideals (Burton, 2004; Silvasti, 2003). It includes questioning conventional yardsticks of measuring success primarily in terms of maximum yield or output, as well as the underlying strategies and practices to achieve these overdetermining objectives, such as the reliance on concentrated feeds, high performance breeding stock, monospecies swards and so forth.

While this cognitive work on oneself clearly plays an important part in becoming a PFLA farmer, I would add that this detachment from conventional expectations (see also Vankeerberghen and Stassart, 2016)

is not merely a cognitive exercise of the individual, but also a social undertaking. In fact, it is much easier – and perhaps only possible – when someone enters into new social relations with like-minded people, who accompany each other throughout this unlearning process. This shows strong parallels to the early organic movement in which the pioneers often faced social isolation in their own community and consequently had to build themselves a new support network of likeminded people (Padel, 2001). Therefore, the social dimension of unlearning deserves explicit recognition because breaking with previously held beliefs and practices is emotionally strenuous. It requires time and support to cope with the fears, uncertainties and vulnerabilities that are inherent to any change of practice or internal struggle over new and old knowledge. Receiving reassuring advice on the forum – and even if it just comes in the form of a simple picture showing the resilience of a mob grazed field during a dry spell – can therefore make all the difference to someone who is still experimenting with a novel practice.

5.2. Enabling sticky knowledge exchange

Second, the practices, ideas and innovations promoted within the PFLA underline the importance of farmers' own experiential knowledge. As the study by Oreszczyn et al. (2010) revealed, this is not necessarily the case in all CoPs within the agricultural context: CoPs developing around more technology-based innovation afford more formal knowledge, which comes at the expense of eroding tacit knowledge and informal learning. Within the PFLA, however, instead of such erosion, we have seen the active build-up and strengthening of contextualized, local knowledge, which is not only invaluable in coping with extreme weather conditions, but also in mastering the day-to-day challenges that come with making livestock farming work purely on grass.

This highlights the importance of an environment which enables effective knowledge exchange and peer-to-peer learning. I would posit that the PFLA's 'sense of community' has played a pivotal role in this context. The organization has repeatedly stressed its own function as an inclusive and non-judgmental learning platform, that strives to create 'a positive movement' with 'a caring and supportive community', which is above all 'collaborative, sustainable and ethical' (PFLA, n.d.-e). Importantly, these are not only officially adopted but lived visions and values, that have created an intimate and safe environment, in which members can share whatever they feel is worth sharing. This has resulted in diverse, open and trustful discussions, which tend to be passionate and empathic, but rarely patronizing. This (n)etiquette characterizes both online and offline interactions within the community and helps to build meaningful relationships, which is after all what sets CoPs apart from less tightly knit forms of social learning organizations including networks or projects.

Another crucial pre-condition for effective knowledge exchange lies in the proximity created through the online forum. Given the caution and reservations raised in the literature about such indirect and physically distant means of communication (Carolan, 2011), it may seem remarkable that most of the interactions and knowledge exchange within the PFLA takes place online rather than face-to-face. In this case, the online forum has helped to bridge the spatial divide that invariably remains between most members. Moreover, it has provided a very effective tool to tap into the sticky knowledge of fellow members. As we have seen, this sticky knowledge is not necessarily non-representative – after all PFLA members are able to talk about their ways of doing things – but the knowledge that circulates within this group is intimately linked to people, place and personal experience. It may not have been verbalized or visualized before and certainly not shared as regularly and widely. In this sense the online forum creates a very effective space for community learning: It provides room to express oneself and the chance to be heard by others, it guarantees regular and reliable access to the knowledge of fellow members – even at 4:30 in the morning, it allows active participation as well as passive observation, and therefore it serves different learning preferences and purposes. Most importantly,

this creates a form of social and cognitive proximity (Boschma, 2005), which may to some extent remain different from the face-to-face interactions described by Carolan (2011), but nevertheless can produce a lot of knowledge – rather than little – despite its mostly virtual and non-tactile nature. Thus, just as in the case of less-dispersed examples of CoPs studied elsewhere, the core value of a true community lies in the fact that it

'gives its members people to talk to and a means for comparing practical circumstances, ever adapting others' words to their own thoughts and offering their own words back for others to chew over, to reshape in light of experiences, and to give back to others once again' (Bell, 2004, p. 235).

This encourages trying out new things, to continue on one's way and/or reflect and potentially abandon old practices. In the end it is this proximity created through regular and meaningful exchange that matters most – and not the means of interaction. Based on this we can understand that kicking the grain habit in livestock farming – or any other agricultural transition for that matter – 'is not a process of adoption-diffusion. It is a process of adaption-diffusion' (Ibid.).

5.3. Legitimizing community knowledge

The case study lastly serves as a strong reminder of the relationship between trust and knowledge networks that determine how farmers – and other actors – know and see the world (Carolan, 2007, 2006b). It therefore underlines the positive role that novel CoPs can play in 'nurtur[ing] certain ways of "seeing"' (Carolan, 2006a, p. 234) and by so doing de-marginalize alternative practices and knowledges. In fact, the legitimization of the community's knowledge beyond its own boundaries is fundamental to ensure the long-term success of the CoP, as this rests on the understanding, appreciation and recognition of other societal actors. While this points to a demand that is frequently raised in the literature – namely the widening of dialogue beyond the farm level in order to transform the agri-food system (e.g. Bell, 2004; Carolan, 2011; Forney, 2016) – the PFLA shows us some creative ways towards that end.

One of these ways lies in the association's own efforts to produce evidence reports about the benefits of pasture-fed farming by mobilizing and externalizing the sticky knowledge of its members. As others have pointed out 'the mobilization and externalization of tacit knowledge is a key factor in creating new explicit knowledge and information for future use' (Hoffmann et al., 2007, p. 362 drawing on Nonaka and Takeuchi, 2007). In this case, the conversion proves particularly useful in making the groups' knowledge more accessible and comprehensible for actors outside of the community, who do not engage in the longwinded processes of learning and unlearning through socialization. In other words, PFLA reports on the economics, animal welfare, health or environmental benefits of pasture-fed farming formally express and explain what the group has learned from engaging in shared practice, thereby rendering this sticky knowledge explicit. This serves various purposes: for instance, the reports help attract interest to grow the member base; they give PFLA members a tool at hand that helps them to withstand in the increasingly fierce knowledge turf wars over the sustainability of different meat production systems; and they provide the basis for lobbying politicians as well as for generating interest within the research community.

Gaining interest of the latter group is important because the impact of own evidence reports is of course limited and always subject to the credibility that any reader attributes to the source. This is why scientific data is sought to substantiate and objectivize any of the claims made about the benefits of pasture-fed farming vis-à-vis conventional practice. The PFLA actively seeks to contribute to building such a stronger evidence base through the initiation of and participation in research projects, which expose the community's knowledge and practices to the scrutiny of external knowledge authorities. One such project is currently

under way at the Centre for Ecology and Hydrology (a now independent, but formerly government-funded research center of the Natural Environment Research Council), exploring ‘sustainable economic and ecological grazing systems’ by ‘learning from innovative practitioners’ recruited exclusively out of the PFLA (Norton, 2018). Such projects with respected research bodies potentially verify the community’s knowledge and provide more powerful evidence that is both tried and tested.

In order to mainstream this discourse, the PFLA then utilizes this information to lobby politicians to support their cause: from the beginning the PFLA leadership engaged in a continuous dialogue with various MPs and encouraged their members to do so themselves. For instance, their efforts resulted in a personal video message for their 2017 AGM from then Farming Minister George Eustice, who stated his belief in the benefits of pasture-fed farming. The long-term success of this endeavor to build their relationship with an elite that can grant them a certain legitimacy will largely depend on the new leadership of the association and the future course decided upon by its members.¹³

Finally, yet another creative way to widen the dialogue presents itself in the aforementioned meat tastings. They nurture a sensual experience that seeks to capture the human and non-human efforts that go into producing pasture-fed products, thereby making a portion of this knowledge literally tastable: The different breeds and grazing systems, the landscapes and soil characteristics, the various species of grasses and herbs, as well as the labor of the farmer, the butcher and the cook all come together to create the unique tastes that consumers have ascribed to pasture-fed meats during such events. Thus, it is this embodied experience of the consumer that contributes to the co-production of a new facet of knowledge, which then allows the community to speak of different terroirs and to further develop the understanding of their product and the craft that becomes associated with it.

As Carolan (2006b) found elsewhere, it is the ability to forge and nurture relationships with ‘those who are perceived to be trustworthy by those within the dominant social networks’ (Carolan, 2006b, p. 334), that allows the proponents of sustainable agriculture to develop ‘from a largely marginalized group of actors to legitimate discursive contenders’ (Ibid.). The PFLA is embarking upon this process of legitimization by trying to enroll industry actors, politicians, academics and consumers alike: Thus what began with simple knowledge sharing soon needed to find confirmation in the eye of other conversation partners and thereby satisfy and comply with different means of accepted proof – be that numerical evidence about the economic advantages, scientific proof about the benefits to animals, humans and the environment, or simply a distinct tasting product. Eventually, it is this multipronged approach that shapes a new discourse and holds the potential to contribute to the “normalization” of pasture-fed farming ‘within an industry where the dominant sociotechnical imaginary denies systems differences’ (Shortall, 2019, p. 10).

6. Conclusion

This paper should have made clear that ‘kicking the grain habit’ in ruminant livestock farming is neither a trivial nor a straight-forward undertaking. It is not simply accomplished by substituting concentrated feeds with grass, nor by putting a new label on a product and expecting demand and wider understanding to develop automatically. It is a complex and time-consuming undertaking, in which the PFLA as a CoP plays a central role. The community enables its members to partake in social learning and collective action by engaging them in a process of adaption-diffusion of the sticky knowledge that is so central to more sustainable ways of farming. While this corroborates earlier findings

¹³ At the time of writing in February 2020 Bill Wiggins, a Conservative MP, resigned from his position as the latest chairperson after internal disagreement over the strategic development of the PFLA. A new leadership has yet to be elected.

about CoPs and social learning, the insights also add to the literature in three important ways.

First, this case study has shown that online communication can be an excellent tool to provide this type of social learning experience. Virtual encounters within a closed and safe online environment can indeed facilitate regular exchange and help build meaningful relationships based on social and cognitive proximity, which are essential for any well-functioning CoP. This finding is of particular relevance for the study of agriculture or similarly fragmented and/or dispersed sectors, in which geographical, financial and time-constraints can constitute a barrier to the development of CoPs. Therefore, virtual forms of communication within a protected space – such as a closed forum – hold the potential to reinvigorate an eroded sense of community within the agricultural realm and deserve further study within the literature on CoPs and agricultural transitions.

Second, the paper has argued for a stronger consideration of the role of unlearning within CoPs and urges us to become more mindful of the dialectic nature of learning processes more generally. As we have seen the PFLA functions both as a vehicle to learn about alternative practices as well as a means to unlearn more dominant ones, that stand in the way of conversion towards more sustainable agri-food-systems. It has shown that letting go of previously held beliefs and practices can be intellectually and emotionally strenuous and often necessitates the support of community members. The respectful sharing of different ways of farming on equal terms – rather than a top-down approach based on best practice examples – has proven to be of great value in this context. Therefore, the social aspect of unlearning plays an integral part in farmers transitional trajectories. Moreover, this ability to foster social unlearning is perhaps a particular advantage of CoPs compared to other organizational forms of learning in terms of their potential to engender practice change and transitions. As such social unlearning within CoPs merits greater attention within social learning theory, agri-food studies and the sustainability discourse.

Finally, it was emphasized that the wider goal of change towards a more sustainable food and farming system can only be achieved, if the new knowledge generated within the CoP can move out of the realm of a marginalized niche. This necessitates the pro-active creation of new learning networks, which enroll other powerful societal actors. The contributions and support of the research community, politicians and consumers legitimize the knowledge of the community and thereby empower the PFLA to shape public debates, policies and institutions. In the end all of these efforts of social (un)learning and collective action have resulted in the introduction of a new normative conversion approach towards more sustainable livestock farming in the UK. It remains to be seen whether this normative approach can be successfully upheld given the challenges that come with the growth of the association and the dynamics of mainstreaming pasture-fed farming. Therefore, the future trajectory of the PFLA promises interesting insights for agri-food studies and should be closely followed.

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CRedit authorship contribution statement

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Declaration of competing interest

None.

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