

The paradoxes of dairy farmers in Catalonia (Spain): Crisis and ‘double bind’

Marc Barbeta-Viñas PhD¹  | Marina Requena-i-Mora PhD² 

¹ Sociology Department, Universitat Autònoma de Barcelona, Cerdanyola del Valles, Barcelona, Spain

² Philosophy and Sociology Department, Jaume I University, Castelló, Spain

Correspondence

Marc Barbeta-Viñas, Sociology Department, Edifici B, carrer de la Fortuna campus de la Universitat Autònoma de Barcelona, 08193, Cerdanyola del Valles (Barcelona), Spain.

Email: marc.barbeta@gmail.com

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Abstract

The article analyses the crisis and ‘double bind’ situation to which Catalan dairy farmers find themselves subjected. Two contradictory commands are being imposed on them: ‘act as if nature does not matter and increase production because, otherwise, the abandonment of livestock activity threatens you’; and ‘reduce production and protect the environment to avoid an environmental catastrophe’. In the first part of the article, we study the socioeconomic crisis facing cattle farmers. In the second, we analyse farmers’ discourse on the matter as a ‘double bind’. Our conclusions indicate that in order to escape this paradoxical situation and gain some autonomy with respect to industry, farmers must establish a collective conscience and unite their interests: Although the path of producer cooperativism may be among the most realistic, it is not an easy one to follow.

KEYWORDS

dairy farmers, double bind, family farm, mixed methods, sociology

INTRODUCTION: THEORETICAL CONTEXT AND AIMS

The dairy sector and neoliberal governance

The path taken by dairy farmers in Catalonia, as in the other EU countries, has followed a model of intensive industrial livestock farming fully incorporated within the global capitalist economy (Davidova & Thomson, 2014; Naredo, 2004). The changes introduced with the common

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agricultural policy (CAP) in recent decades have prompted farmers to develop dairy production to the maximum in an attempt to increase its efficiency in a liberalised (with the end of milk quotas in 2015), highly competitive and productivist context. This in turn resulted in a tendency towards concentrating capital in larger farms. The sector has thus modified its structure, moving from a relatively large number of small and medium-sized farms to a much smaller number of large, highly technical, specialised, high-productivity farms (Clay et al., 2020).

Although authors such as Bowler (1996) saw the first CAP reform in 1992 as marking the beginning of a post-productivist model by incorporating the discourse of sustainability into agriculture, we believe it has rather highlighted the contradictions facing the agrarian sectors, as we shall see in this article. Authors such as Evans et al. (2002) have already questioned the virtues of post-productivism. Their ideas are reflected in the Catalan case, showing that post-productivism obscures rather than illuminates the ongoing processes: Environmental policies applied to dairy farms collide head-on with the productivist demands of the market, productive diversification in the dairy sector can be largely explained by the compromised nature of the economic viability of many farms, and the limitation in land use has contradictory effects (concentrated intensification, land sales, etc.), citing only some of the post-productivist dimensions.

These policies are part of the changes that have occurred in governance systems in recent decades, guided by what some authors have described as neoliberal technologies (Busch, 2010). The governance model developed between the EU Member States and other private organisations in the dairy sector shifted from one of the partially regulatory measures to full liberalisation in 2015. As is well known, EU Regulation 856/84 established a regulatory system for milk production in member countries. This was understood as a corrective system to address market imbalances, which would impose limits on annual milk production (milk quotas). In the case of Spain, its incorporation was problematic, and it did not become effective until 1994. Imbalances in the initial forecast with regard to the allocation of quotas resulted in a much lower level of production than the country's true capacity. This turned Spain into an importing country while also generating very high economic costs for farmers (purchasing extra quotas, payment of penalties for overproduction and fraudulent purchase-sale circuits) and a loss of investment capacity (Santiso & Sineiro, 2016). The end of quotas in 2015 saw another turn of the screw in the neoliberal project and with it new forms of governance. States reduced their role to a minimum and instead acted as coordinators for the different parties involved in the governance of the milk sector (Little, 2001). This new framework led to changes in the rules of the game for the different actors: not only the industry and large distributors but also the farmers. However, far from authentic deregulation, what was put in place was a re-regulation (Polanyi, 2015) of the relationships between these actors.

Before ending the quota policy, the European Commission introduced the Milk Package in order to stabilise the sector by strengthening dairy products while preparing them to operate in a market-centric environment. In countries like Spain, its effectiveness has been called into question however (Santiso & Sineiro, 2016): on the one hand, due to the lack of structuring of the sector (representation, dialogue and integration between the actors in the sector) and insufficient clarification in the distribution of regulatory powers of the dairy sector between different levels of public administration and, on the other hand, due to the model of unequal relations between the dairy industry and farmers heralded in by the new 'playing field' (Clay et al., 2020; Glover, 2015). These new rules, which had been accentuated with the end of quotas, consisted of a strategy that entailed farmers complying with a series of rules imposed by the industry and the market in what constituted a captive and hierarchical form of governance (Ponte & Sturgeon, 2014). That is, the introduction of certifications, accreditations and control of the supply chain (Busch, 2010),

by means of which the dairy industry and large distributors dictated the terms and controlled the purchase and sale of milk.

Some of the most prominent measures introduced in Spain (derived from European regulations) can be interpreted in this regard, such as the promotion of contracts for the purchase and sale of milk between farmers and industry, with the (supposed) objective of strengthening the negotiating position between the two parties. In these types of measures, although nominally maintaining the idea of a free market and seeking 'free agreement' between the actors, the distribution of value tends to favour the companies, which in practice govern the milk market (Jay & Morad, 2007). In the Spanish case, raw milk supply contracts are generally annual, establishing the volume of deliveries, with some flexibility according to the regulations, as well as arbitration and price negotiation. They may include a price indexing mechanism that adapts those established in the contract to the evolution of the markets in order to avoid the impact of volatility. In practice, however, the contracts have not served to end the power imbalances between farmers and the industry (Gorton et al., 2017; Santiso & Sineiro, 2020).¹

The question of prices continues to be one of the central themes of the serious crisis that Catalan (and Spanish) farmers are currently experiencing. The end of quotas, in addition to other factors such as fluctuations in international markets, led to a significant drop in prices, contrasting with the relatively high prices reached in 2013. Since then, the recovery has been changeable and extremely timid. In 2019, for example, the perceived prices of raw milk ranged from 312 to 325 (€/1000 L), very similar to those of 20 years ago. Between the end of the quotas in 2015 and 2019, it had dropped to 250 (€/1000 L) according to data from the Catalan government's Department of Agriculture, Livestock Farming and Fishing.

Different studies have provided evidence of how the dairy industry ends up imposing its will in the process of 'negotiation' for the purchase and sale of milk, as well as on the terms of the contract that regulates the conditions associated with it. This imbalance in power between actors has been identified as one of the causes of unfair business practices. Furthermore, the literature also highlights the asymmetric costs of executing contracts, asymmetric information, clauses in the contracts or unilateral changes in them and the proliferation of milk commercialised on the free market (Bonanno et al., 2018; Di Marcantonio et al., 2018, 2020; Dries & Swinnen, 2004).

In general terms, neoliberal governance can be seen to have stimulated the predominant oligopsonic structure of the milk market, facilitating the industry's control over prices and conditioning transactions with farmers (Čechura et al., 2015). Thus, integrating farms within commercial channels in exchange for accepting certain conditions (increased production, contracts, introduction of technology, etc.) has turned farms into one more link in the industrial chain. This has sometimes entailed a process of disguised proletarianisation, in which the farmer has become a de facto employee of the agro-industrial complex (Bernstein, 2010). Furthermore, the obligation on the part of agriculturists and farmers to acquire intensive industrial inputs at higher prices means that dairy farms are at a disadvantage with respect to the output buyers (the industry) but also the input providers, which supply necessary inputs such as machinery, fuel and so forth (Fałkowski et al., 2017; Weis, 2007).

The triple paradox of agrarian modernisation: its impact on dairy farmers

A structural understanding and the global meaning of this process of transformation with regard to the dairy sector can be found in the idea posited by Marx (1976, pp. 54, 55), according to which

we would be facing a ‘process of subsumption of the rural world by capital’. Not merely a formal subsumption of agriculturists/farmers under capital, but—as Alonso et al. (1991, p. 38) point out—a *real subsumption* in which capital constantly recreates both working conditions and the form of consumption in the face of a permanent accumulation of relative surplus value in the global economy as a whole. This logic of integration entails a triple paradox that characterises the third phase of the agrarian modernisation (Ortí, 1997).

First, there is an economic paradox, according to which the reconversion of traditional forms of production into forms of production destined to increase productivity, efficiency and the possibilities of capital appreciation has meant that a large part of agricultural operations and livestock have tended to become economically less profitable.

Second, there is a social paradox, according to which the third productive modernisation of cattle farmers in the short term has contributed to social suicide for them as a social class and their way of life in the medium term and therefore the liquidation of the rural world in the long term (Camarero, 2017; Ortí, 1997). We have already pointed out that the reconversion of the sector has transformed farmers into ‘farmer entrepreneurs’, where it has not actually forced them to abandon their activity. An aspect that, in the case of Spain and Catalonia, is particularly significant: In Catalonia, as many as 90% of farms abandoned the activity from 1992 to 2019. The slow ‘euthanasia’ with which Ortí (1997) characterised the evolution of traditional peasants and farmers should not be understood only as their disappearance but as a process that would indicate their transformation into ‘capitalist farmers/agriculturists’ subordinate to the agro-industrial network, whose mindset and behaviour would respond to parameters different from those of the traditional model (Bernstein, 2010; Requena et al., 2018).

Third, there is the ecological paradox, according to which the productive modernisation of the agrarian sphere has brought with it ecological conflict, in line with the productivism/post-productivism debate (Dibden & Chocklin, 2005; Macnaghten & Urry, 1998) understandable in terms of what Bateson (1985) called ‘double bind’. This means that agriculturists and farmers are currently in a situation that poses contradictory demands. On the one hand, they ‘act as if nature does not matter and increase the number of livestock and production because, otherwise, there is the threat of having to abandon the livestock activity’. On the other hand, they ‘reduce production and protect the environment to avoid environmental catastrophe’ (García & Cabrejas, 1997). Many studies have demonstrated that the livestock sector is a significant source of greenhouse gas (GHG) emissions. Its contribution to global anthropogenic GHG emissions is estimated at 6.3% (IPCC, 2014; Opio et al., 2013).

This last paradox serves as a working hypothesis in which the dimensions are related to the presence of two contradictory mandates in livestock discourses, both in a productivist and environmentalist sense. The analysis and implications of these problems have not been sufficiently studied in the dairy sector (Clay et al., 2020).

Therefore, our aim with this article is to use empirical material to further research the terms under which farms remain in operation in the context of crisis that threatens Catalan dairy cattle farming and how these paradoxes affect the process. The specific aims are: (1) to analyse the main socioeconomic elements of livestock farms, paying special attention to the role of production; and (2) to explore farmers’ representations and attitudes regarding the sector within this context, analysing the relationships between social agents resulting from current governance of the dairy sector and gauging the extent to which these can be interpreted in light of the aforementioned paradoxes.

METHODOLOGY AND DESIGN

The methodological design of the work has combined quantitative and qualitative methods with the aim of addressing the different dimensions of the dairy farm crisis. Quantitative methods are suitable for analysing factual elements such as the socioeconomic evolution of the sector and the governance contexts, while qualitative methods help us to capture the intersubjective significance of these processes by farmers.

For the statistical-quantitative analysis, we used indicators of the economic and productive evolution of farms provided by different surveys (Table S1).

The purpose of the qualitative analysis was to capture the ideological and significant dimensions of our object of study, calling for methods and techniques that allow us to study social discourses. The focus group (FG) technique and the open interview (Int) are perfectly suited to these kinds of demands. We followed the so-called Madrid qualitative school (Ruiz, 2018) and its *socio-hermeneutical* development of the sociological discourse analysis method (Alonso, 2013; Conde, 2009). This socio-hermeneutic approach proposes reconstructing the discourses with which the subjects give meaning to their micro and macro-social contexts. Such an analysis articulates the semantic level of the texts using the pragmatic context of discursive production. The micro-situation of the discussion group serves as an empirical basis for analysing and interpreting the social macro-situation: The discourse produced in the groups reflects the social contexts of reference represented by each group (Ibáñez, 1979).

Although resembling the approach adopted by Glaser and Strauss (1973) in terms of opposing theoreticism and abstract empiricism, this hermeneutic school does not propose any content analysis as do the grounded theory. As stated above, the sociological analysis of discourse proposed here aims to address the ideological and connotative level of language used by participants, as well as its more latent dimensions. It initially employs a holistic vision, aimed at addressing the corpus of narratives in their entirety. In the second stage of the analysis, following initial conjectures about the discourses and meanings that have emerged, the corpus is divided into segments, though without losing sight of the whole. To this end, we have taken the ideas posited by Ricoeur (2008) as a reference, in which he proposes that the hermeneutical analysis goes from the whole to the parts and details and from the parts back to the whole. In our case, the initial segmentation of the text followed a thematic arrangement so that segments (which comprised phrases that might be more or less complex) could then be linked to the ways in which the farmers valued those aspects that they themselves found most relevant in relation to their dairy production, relations with industry and so forth, given the different social contexts in which they found themselves.

The strategy employed followed two analytical procedures: First, analysis of the polarised and common structure for all of the texts that comprised the corpus was used to identify the main axes for the ideological codification of the farmers' discourse (Voloshinov, 1973); this analysis drew out and awarded empirical consistency to the hypothesis of the double axis that structured said discourse in terms of productivist and environmental demands; second, analysis of the legitimations and discursive perspectives that the farmers shared and guided their speech in relation to each axis (Conde, 2009).

The groups and interviews were therefore set up to obtain information from farmers and employees of livestock farms who work with dairy cows. The aim of the *structural sample* (Ibáñez, 1979) used was to capture different discourses from the different sectors of farmers and employees according to their shared social conditions. To this end, we developed a list of basic types for the selection of informants based on a series of variables that, as a design hypothesis, are deemed relevant in capturing the discursive variety of the social field to be analysed. The following were

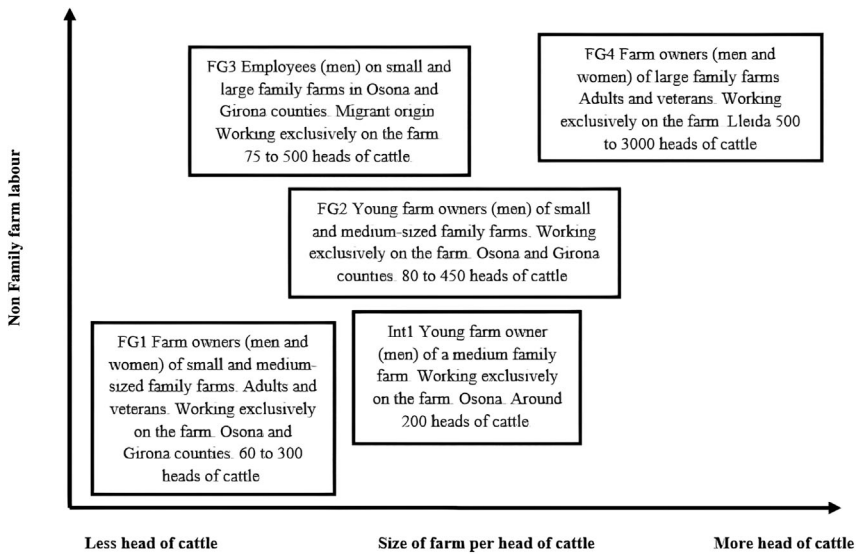


FIGURE 1 Focus group and interview design

considered relevant: characteristics of the farm, the fact of being owners or employees (and nationality of the latter), age (distinguishing young people from veterans), assuming some discursive variability in the construction of expectations, as well as the specific territory where the farms are located in Catalonia and the intensive production system to which they belong (with the cows generally housed on farms), which is the one most commonly employed in Catalonia.

The most commonly used criteria to distinguish between types of family farm are the number of livestock (dairy cows and heifers) and use of salaried labour (Hill, 1993): Family farms would be those that use a null or very low percentage of salaried labour. However, to take into account family farms with capitalist dynamics, it is necessary to consider the model of the farm with regard to its management and commercial relations (Brookfield, 2008).

All of the farms where our informants work can be characterised as capitalist family farms according to the outlined criteria. The 'capitalist' nature of the farm depends particularly on the type of relations it has with the market and its forms of social and economic reproduction. Thus, farms participate in what amounts to a capitalist valorisation process and are integrated within the industrial livestock sector, maintaining commercial relations with the dairy industry. Some farms do report sales to individuals (this being legal in Catalonia since 2018), though only in a complementary way and without this being their main activity.

However, some of the farms—the smallest and some medium-sized ones²—retain a marked family character due to members of the same family being the majority workforce. In these cases, the work is shared with at least one member of the family (father, mother, child, spouse), or farms have been inherited from the family of origin of the farmer interviewed, who was also engaged in the same activity—though this is not true of the actual land they use, given that this is rented in some cases.

The fieldwork was carried out in different parts of Catalonia between November 2019 and February 2020. It involved four FGs and three interviews, one with a young farmer and the other two with veterinarians from the dairy sector (see Figure 1). The interviews with the veterinarians were exploratory in nature and had the aim of increasing the researchers' knowledge regarding

relevant aspects of dairy production. In these interviews, the focus was on the referential and informative level of the language, not forming part of the corpus of texts submitted to discourse analysis. A researcher linked to the project was responsible for recruiting informants. The author was in charge of guiding and moderating the groups and interviews; the dynamics were recorded and the material from the recordings was transcribed by a specialised company for use in the analysis.

Among the limitations associated with this sample, we would highlight the amount of funding available, the difficulties of accessing informants and, finally, the imposition of a state of alarm in Spain due to the COVID-19 crisis, which made it impossible to expand the fieldwork further. Despite the sample not fully covering all discourses (high-mountain dairy farms and those with cheese-making processes, etc., being excluded, although these do comprise a minority), the analysed data do provide the basic discursive differences existing in the researched social spheres.

ANALYSIS AND RESULTS

Quantitative analysis: the paradoxes of agrarian modernisation and structural problems in the sector

In this section, we will analyse the main elements that define Catalan livestock farms. First, we will study the evolution in the number of farms, the number of cows and milk production and productivity. Second, we will summarise three structural problems that play a decisive role in the evolution of the sector and the socioeconomic situation facing farmers.

First, we observe an increase in milk production despite a decrease in the number of cows. This shows an increase in productivity, fewer cows are producing more litres of milk.

However, the paradox of agrarian modernisation supposes an economic paradox: Livestock farming tends to be more and more productive but less profitable. While fewer cows are producing more milk, there is also a declining trend in farm profits. Revenues are decreasing while costs (fixed and variable) follow an inverse trend, meaning the profit margin is decreasing. Therefore, the farms are increasingly productive and produce more milk with fewer cows, but at the same time, they are less profitable. Furthermore, if we add the opportunity costs of land income, family labour and interest on invested capital, the net economic margin of Catalan dairy farms is negative (see Figure S2, and for further information about the dairy sector in Catalonia, see Table S4).

Regarding the results of the farms grouped by production quota strata, we observe that the farms that earn the most money per litre of milk are those that produce the fewest tonnes (with higher rates of fat in the milk). This relationship holds for all periods studied (see black line in Figure S3). In addition, we again observe the economic paradox since the farms that produce more litres are increasingly productive (see red bars in Figure S4) but less profitable (see red line in Figure S3).

However, even if it is the small farms that earn the most per litre, it is the large farms that can survive. When we multiply tonnes of milk produced by profits per litre, we see that the large farms are the ones with the most profits (see Figure S5).

These graphs suggest the low economic viability of farms in the lower strata and its possible relationship with the abandonment of the business activity. Figure 2 show the concentration and disappearance of farms: There has been a decrease in farms (from 4329 in 1992, only 437 were registered in 2019), while the number of cows has not decreased in the same proportion. This can

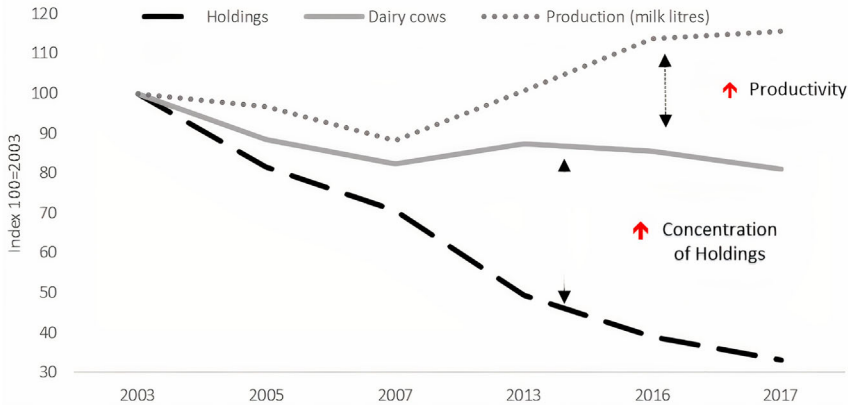


FIGURE 2 Evolution of the number of farms, livestock and production

be interpreted in relation to the social paradox of agrarian modernity mentioned previously (Ortí, 1997).

Furthermore, if we look at the percentage of farms by the number of cows, we see that the last of the sections (more than 100 cows) has only increased since 2005. In 2016, 62% of farms had more than 100 cows, while the rest of the strata have progressively shrunk in size. We do not only see farms disappearing but also those remaining are getting larger and larger (see Figure S6). These data illustrate the first of the demands that farmers are subjected to, associated with increased production in order to avoid abandoning the livestock activity.

The second issue is the relationship between the transformation of dairy cattle farms, comprising the gradual abandonment of agricultural activity and concentration of farms, and three structural problems that partially contribute to explaining it: the oligopsonic market structure, the increasing volatility in prices and changes in the CAP.

First, the oligopsonic nature of the milk market in Spain and Catalonia makes it easier for large dairy companies to impose their will and conditions on farmers (see Table S3). As we will see in our analysis, the latter tend to be at a disadvantage in the process of negotiating the sale prices of raw milk and the terms of the milk purchasing contract (Di Marcantonio et al., 2020). Consistent with our results, Di Marcantonio et al. (2018) showed how EU farmers have lost bargaining power with respect to their main buyer. As we have said, the purchasing contracts have also failed to eliminate the imbalances of power between the actors.

Second, changes in milk prices are marked by a global context that accentuates volatility and uncertainty for producers. Three main stages can be identified in the historical evolution of milk prices. The first (1977–1992) was characterised by constant price growth and a guaranteed price system (see Figure 3). From 1992 to 2004, prices remained stable. Since then, the political environment surrounding the dairy industry has undergone a change under reforms ushered in by the World Trade Organisation and the CAP. Until recently, those instruments that had been employed had insulated EU domestic milk prices from the volatility associated with world prices. Intervention buying prevented a sharp decline in prices, while other measures, such as production quotas, export refunds, import tariffs and subsidised consumption measures helped to guarantee higher and less volatile prices than those on the world markets (O'Connor & Keane, 2011). The movement towards lower levels of CAP support prices, reduced intervention and a more liberal global agricultural trading system have involved greater price volatility for dairy commodities as prices

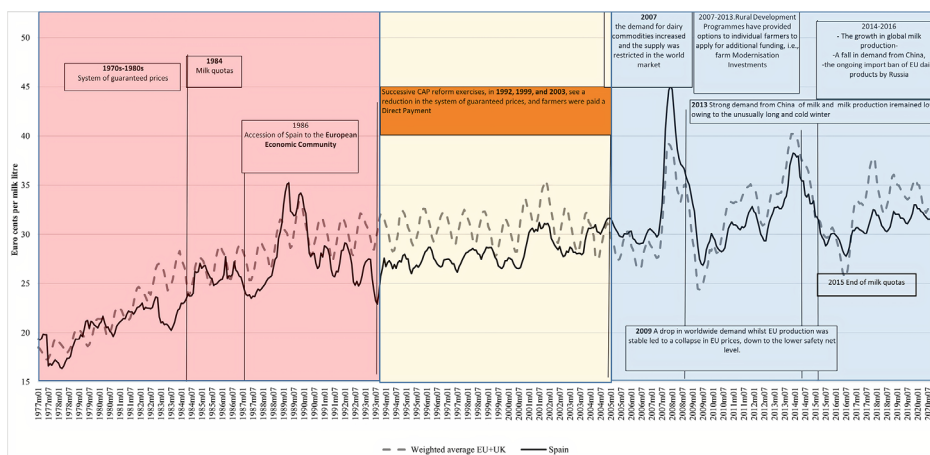


FIGURE 3 Evolution of milk prices in Europe and Spain (1977–2020)

align more closely with world prices. Since 2003, price fluctuations have become more and more pronounced.

Volatility in EU milk prices has created problems for farmers (O'Connor & Keane, 2009), who did not have to deal with this issue until now. Extremely low prices cause financial problems, such as profit margin reductions and financing problems (O'Connor et al., 2015), while extremely high prices result in product substitution, that is, the purchasing of cheaper milk substitute products. The dairy industry is also affected by price volatility, as companies prefer stability to plan relationships with their customers and to do business with more price-stable sectors.

Finally, the CAP-guaranteed price system was replaced with three key instruments that have been detrimental to smaller farms and encouraged increased production. These instruments are: the decoupling of aid, eco-conditionality and the modulation of aid.

The decoupling of agricultural aid to production was intended to end the incentive to over-produce food and reduce pressure on the environment. The Direct Payments regulation established that 'all payment entitlements in a Member State or in a region shall have a uniform unit value', but it also details numerous derogations and technicalities in the process that in practice undermine achieving such uniform values. In Spain, the single payment is established based on a regional production reference but also the level of direct payments received by the farmer in the 2013 campaign. According to Ruiz (2019), Spain is a peculiar case as regards the distribution and convergence of direct payments. It is the Member State in which the flexibility offered by the regulation has been stretched to its maximum, thus perpetuating 'historical references' as the main factor determining the value of entitlements, which means that historical productivism is consolidated by rewarding the largest farms, thus harming the environment. Data from the Farm Accountancy Data Network (FADN) survey 2016 reveal the mentioned disparity in decoupled aid. Within Spain, the regions that receive the most money from this type of aid are those that produce the most litres of milk on average. The disparity in aid is transferred to the differences between the various countries in the European Union. Countries with less milk production receive less decoupled aid (see Figures S7 and S8).

In addition, CAP aid is now conditional on the fulfilment of certain non-productive criteria established in line with citizens' post-productivist demands on the quality of food and respect for the environment (eco-conditionality). However, the application of these criteria means increasing production costs as reported in the focus groups. Soler (2005) highlighted the low viability of such

aid in a context in which farms struggle to survive by increasing production to the detriment of the environment.

Finally, the mandatory modulation of aid was introduced following a debate on the distribution of aid. Trade unions representing small and medium-sized farmers called for a social modulation of aid in favour of small family farms. However, this concept of modulation is not the one that was included in the 2003, 2009 and 2013 CAP reforms. For example, in 2012, 16 per cent of beneficiaries of the CAP were left with 75 per cent of all aid; that is, the vast majority (84 per cent) shared only 25 per cent of it.

Qualitative analysis: the ‘double bind’ of dairy farming

We will focus our qualitative analysis on the farmers’ position in their specific and common relationship with the production process and other actors in the sector. The analysis has revealed that the general sense of these relationships has tended to be framed within a basic contradiction between a discourse that expresses both *productivist* and *environmentalist* demands. This analysis allows us to surmise the ‘double bind’ relationship experienced by cattle ranchers in the current crisis (Bateson, 1985). In the case we are addressing here, the first demand derives from the need to make the farm itself economically viable and is stimulated by relations with the dairy industry and the market. The second is the demand to adapt milk production and farming operations to comply with regulations aimed at preserving the environment; farmers develop this as a *referred* discourse³ in their relations with public administrations and, more diffusely, with an environmentalist discourse.

These two demands tend to structure farmers’ representations and experiences, functioning as bases of ideological coding that establish the discursive framework of their position (see Figure 4).

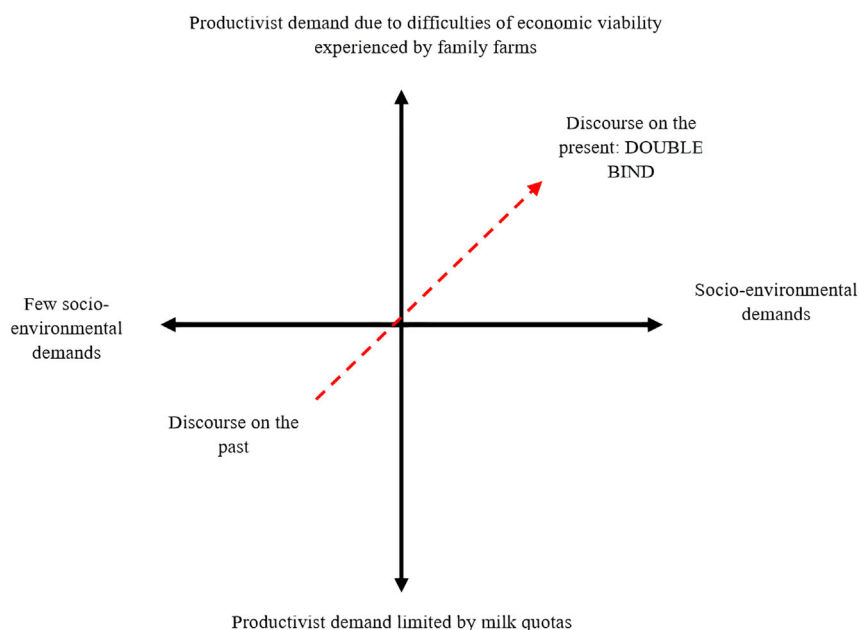


FIGURE 4 Discursive structure attributed to dairy farmers

Productivist demand and the price problem

Taking into consideration the objective context in which they find themselves (sole sales channel, absence of business diversification and so forth), farmers, large and small, develop a productivist discourse that tends to prescribe, based on the rationalisation of their own profit, the permanent need to increase milk production. The growing demands for farms to be profitable have crystallised in the form of growth expectations so as to maximise productivity. Thus, they develop a productivist discourse according to which greater production, efficiency and quality of milk would mean greater possibilities of economic performance through the desired (but frustrated) increase in the price of milk. Additionally, growth is very clearly linked to cost reduction. However, the experience of recent years has shown that the expected equation has not come true, thus revealing the first contradiction in this discourse.

- But well, it is true that you end up growing because, well, the demand... is that you make more milk because one day... well that's it.

- Do you know what happens in the factories? They say 2 pesetas less. Do you know what we do with the cows? We need to put more cows in. To make more milk so that costs go down (FG4).

The post-quota context has given rise to a re-regulation scenario (Polanyi, 2015), in the sense that it has not meant so much the disappearance of regulations for trade relations but rather a modification of the rules of the game that govern the purchase and sale of milk. If under milk quotas Catalan farmers were compelled to limit their own growth, with the end of the quotas, the absence of institutional regulations has made it easier for the industry to be the one that effectively, and in accordance with its own interests, has ended up establishing the guidelines of the productive and purchasing processes. As the farmers themselves state via a very significant *ideologeme*, 'now it is the industry that sets the quota (FG1)'. However, the reference point for production is now rising, which places a direct demand on dairy farms to increase productivity. Aware of this situation, the farm owners have agreed—resignedly—to acknowledge the power exercised by the dairy industry over the vicissitudes of the sector.

The discourse on the demand for increased productivity comprises three semantic spaces. First, the oligopsonic determination of prices and persistence in the productivist discourse. Consistent with the literature (Bonanno et al., 2018; Čechura et al., 2015; Di Marcantonio et al., 2018), we find the power of the dairy industry to have had practical effects on the fall of milk prices. 'Price' constitutes the first of the problems that currently defines the farm crisis in discursive terms, it being characterised as 'unsustainable' from the point of view of farms' economic viability. The discourse of large-scale farmers even characterises the industrial network as a veritable 'monopoly' (FG4), being perceived—from a feeling of defeat—as impossible to contend with. Thus, these farmers denounce the 'monopolistic' practices—more technically we must speak of oligopsony—of abuse of power and manipulation. In the focus groups, ghosts emerge that perfectly encapsulate how industry managers exercise their power by making milk pricing decisions behind the farmers' backs ('They have never looked at the sector', Intr1).

- I have a colleague who told me, generally speaking, that the guy from Pascual [a milk company] comes.... And they stand there and...

- What can we do, you know?

- ... and at that table they resolve the issues of the sector. But they resolve them amongst themselves [...]. This is a totally imposed monopoly (FG4).

The discourse emerging from FG1 and FG4 referred to the chain of pressures that most likely contributes to determining the price of milk, linking industry practices with those of the distribution chains, and even those of consumers themselves. In relation to the latter, the young people in FG2 pointed out the scarce social and economic value awarded to milk at this time ('The problem is that what cows give us is not valued', FG2). However, possibly due to the direct relationships that farmers maintain with the industry, the critical discourses they express are directed towards their subordination with respect to the latter. The experience of subordination and, especially, the inability to imagine and verbalise an alternative scenario makes it difficult to modify the current context; both on a practical level, as there are very few alternative systems for buying and selling to those imposed by the dairy industry, and also on an ideological and discursive level, witnessed by changes in the farmers' conceptions of production. Despite their expressing the difficulties caused by the demand for increased production, which prescribes greater production, greater efficiency, higher quality, it is a difficult discourse for them to abandon. Persisting with this discourse in exchange for an expected price increase puts these farmers in a no-win situation: They believe—wrongly—that more production and higher sales volume will mean higher profit.

However, it is a discourse that means having to ignore the asphyxiating relationship they are subjected to as they themselves state. From this perspective, the farmers tend to *deny* this very subordinate nature of their relationship with the dairy industry. This psychological mechanism, which is employed to reject an unacceptable reality (Laplanche & Pontalis, 2001, p. 363), emerges because it allows the farmers to simplify their discourse and behaviour and maintain the productivist view, as well as ignore exploring other ways of introducing changes into this system of buying and selling within the industry. Likewise, it also avoids—although only partially—increased feelings of helplessness in the face of the impregnable power of the industry, highlighting the practical impossibility of finding alternatives and, at the same time, critically reviewing their own behaviours, in terms of collective action, for example.

- We're stupid. We do nothing. Get more cows, yes. More milk for them. We're doing it backwards. We should say, no, we're not doing it, we quit. But we do the opposite, (...)

- But they do it because I think they have that argument that the purchasing manager of Lactalis said when the price went down at some farms around here a year and a half ago. He said 'if I put the price up when I want milk, then I don't have any. When I want some, what I have to do is lower the price'. And what can we do? Give it away. What does your kid drink at home? What does the family drink? Yes, we need more cows again, we need more space, now that machine is broken, now I need two because before I had 600 cows and now there are a thousand. And it never ends (FG4).

The ambivalence that permits such denial consists in accepting and denying this concrete aspect of reality at the same time, allowing the farmers to project all possible protests on the

industry for its abuse while in practice maintaining the coherence of the productivist discourse and probably waiting for the more imaginary than the real moment of ‘individualised salvation’ from one’s own exploitation. However, this individualist strategy did not manifestly emerge in the groups, most likely due to the difficulties of reaching a group consensus on an individual model for escaping a collective problem. The discourse did reveal the weight played by the interests of each farm, blocking any form of shared consciousness between these dairy farmers with enough force to transcend individualist views and prevent collective action. In fact, the farmers in FG4 pointed out that one of their problems is the lack of trust and ‘individualism’ that defines them, which is expressed in their behaviours (‘We’re very individualistic and selfish... everyone does their own thing’, FG4), consistent with the findings of other studies (Pachoud et al., 2020).

Second, the conception of contracts with the industry is seen as an ‘imposition’ and expression of neoliberal governance (Bonanno et al., 2018). In the discourse on relations with the industry, the farmers mentioned milk purchasing contracts as the main problem. In the first part of this article, we have already seen that these contracts were intended to stabilise farms; however, they are one of the aspects most poorly valued by farmers and deemed as harmful to their interests. The discourse unanimously rejects the true ‘contractual’ nature of existing contracts, in the sense that they do not represent an agreement between both parties. Thus, the meaning they imply moves away from any perspective of negotiation between equals: On the contrary, it resembles a form of blackmail made possible precisely because of the unequal power relations between the actors. The power of the industry is seen as a threat to their economic viability via a form of exploitation. In the discourse, the fear of being left without the possibility of selling milk is combined with the spectre of abandonment on the near horizon. More specifically, the farmers criticise the difficult 1-year forecast of production, insofar as there is always uncertainty over the achievement of contracted quantities. As Davis (2011) pointed out, price volatility, which is typical of the dairy sector, is associated with the difficulties farmers find in complying with contracts. Thus, they think that this contractual system does not take into account the eventualities, the possible setbacks that may occur within this ‘long period’ of a year and see themselves as being unable to fulfil the contract, with the consequences this entails: a rise in industrial inputs, livestock feed, animal diseases, bad harvest and so forth. This causes them anguish due to the ongoing possibility of not being able to reach the threshold established by the contract and having to compensate financially for any failure to comply with it.

- I understand a contract as a negotiation between you and me and we come to an agreement, and then we sign, right? This contract, I mean, the industry came to us with a piece of paper and told us ...

- Sign here.

- Do you want to just sign here? ‘Well... I have to read it first!’ ‘If you want to read it, OK, but it doesn’t matter. Either you sign or I won’t order any milk from you. That’s the deal’ (FG1).

- They make the contract.

- No, no. The contract is real. It’s a real contract but there’s no negotiation (FG4).

Another dimension of this semantic space referring to contracts is the importing of milk from countries like France or Germany at a very low price. Seen as unfair competition, these imports act as pressure factors for dairy farmers regarding their acceptance of the conditions imposed by the industry, while also causing a drop in prices.

Third, the conception of ‘intermediaries’ as ‘opportunists’. Closely related to the above, the ‘illegitimate’ and fiercely criticised figure of the ‘intermediary’ emerges in the discourse, that is, an actor who offers to buy milk outside contracts, usually at a very low price. Since the liberalisation of the sector, there has been a growing presence of intermediaries in the Catalan and Spanish milk market, basically due to three factors: a lack of organisation among producers, the relative passivity and incapacity of the administrations and, particularly, the promotion done by the industry itself. On many occasions, intermediaries act in the service of the large industry by buying milk from farmers below production costs. They use very flexible strategies, appearing and disappearing as purchasing companies at a certain time. This undermines the coherent structure of the market and creates important problems of communication and trust between farmers and the industry. Intermediaries are a clear demonstration of the neoliberal and hierarchical governance model deriving from this type of relationship (Busch, 2010; Ponte & Sturgeon, 2014). The effects of the practices implemented by intermediaries have been an increase in spot milk (sold without a contract), which has also led to large variations in price when there has not been a general decrease (Santiso & Sineiro, 2016).

From the subjective perspective of farmers, and in accordance with the aforementioned objective effects that ‘intermediaries’ have on them, they understand that there is no justification for the existence of such a figure: They do not make any specific contribution to the value chain and, above all, represent one more step in the already devalued price of milk, contributing to the ‘economic strangulation’ of farms, large and small. Faced with the fear of the industry not collecting their milk—in terms of Di Marcantonio et al. (2018): ‘Take it or leave it’—or even when this has already happened, the farmers highlight the ‘opportunistic’ character of the ‘intermediary’ in their stories. This figure, they say, takes advantage of farmers’ desperation at the impossibility of selling the milk they have produced and proposes a lower purchase price than that offered by the industry. Undoubtedly, the perishable nature of milk makes it difficult to agree on prices in their favour through the practice of withholding it.

This situation generates a feeling of conflict among farmers. On the one hand, from an individual perspective and in the short term, ‘intermediaries’ may even ‘save’ their production in the absence of another buyer. But on the other hand, the farmers are aware that in collective terms, they reproduce and even extend the terms of their own subordination. This generates some distress, with the resulting end prices making their businesses even less viable. Faced with this situation, which they feel they cannot change, farmers do nothing but express their impotence, even punishing themselves with self-reproaches. They are aware of their own inability to deal with this problem and complain about an ‘absurd’ but irremediable situation in which all actors seem to win except themselves: The intermediary buys the milk at a very low price to sell it to the industry.

- All of us know the problem, that one day they tell you that in a few months they won't collect your milk and then what do you do? And so the figure of the intermediary has been created. The intermediary is the one who makes the money, buys cheap and sells expensive. The industry says it doesn't want milk, that same day you get the intermediary offering you 7 or 8 or 12 cents less, and since you have no way out... (FG1).

The environmental demand as a 'cost'

Let us now address the discourse on the environmentalist demand made of farmers, which contradicts the productivist demand we have seen previously. This demand is basically found in farmers' critical account of the environmental regulations they are forced to address. In their opinion, these regulations constitute one of the main problems that, together with low prices, endanger the economic viability of farms. Farmers have tended to encode the environmentalism of administrative regulations as a 'cost'—whether economic, working time or another type of cost. Their legal nature has meant they are of 'mandatory compliance'. This highlights the contradictions inherent in the post-productivist model (Bowler, 1996) by introducing the environmental issue within a neoliberal context without paying attention to the material living conditions of most dairy farmers.

Generally speaking, the evaluative discourse on environmental regulations was the most overloaded one in affective terms in the focus groups. The dairy farmers were not able to elaborate sufficiently on the topic and convert environmental issues into a more open and less reactive discourse. They have experienced these types of environmental demands as permanent harassment directed at them and their status as farmers and feel that they have been made responsible and even blamed for a wide range of environmental problems, some even of global importance, such as climate change (Clay et al., 2020). Their position with regard to this has not been to deny environmental problems but rather to adopt a defensive, reactive attitude in the face of accusations that are deemed to be excessive. In this sense, they think that agriculture and in particular dairy farming 'are bearing the brunt of the criticism' in a context of an environmental crisis that they acknowledge but believe has more to do with the urban lifestyle than with livestock farming. These farmers' awareness of the accusations and the latent assumption of the feelings of guilt they have to face make it difficult for them to have a more rationalised discourse on the matter. Thus, they tend to experience and reproduce environmental discourses from a perspective of persecutory guilt. That is, accusations, resentment and discomfort due to feelings of persecution predominate in their experiences of relationships with others ('but it's all: we're bad, we're aggressors, we're criminals, we're everything. We're exploiters, then... ', FG4). Reactively, they have tended to bring the mechanism of projection into play, in the sense that they respond to their environment according to their emotional states, externalising the sources of their discomfort (Laplanche & Pontalis, 2001, pp. 306–312). Feeling guilty over environmental accusations and demands, these farmers defend themselves with a latent discourse structured on the basis of: 'you even more so'.

- ... right now, with all this about climate change and pollution, it is agriculture or livestock farming, especially with cattle, that has been criticised most. No one has a go at cars because they pay for their annual inspection, for parking, road tax... car parks, everything... Of course, there's a world of excess here. Don't even get me started on cruise ships. The planes, in Barcelona there's that smog... those people must have a lot of cows hidden somewhere.

- Yes...

- Climate change existed before cows did... (FG1).

The consequent discourse has been structured by a time axis linked to the before/now. The older farmers point to the relatively new nature of environmental regulations, contrasting them with

the laxity of these considerations in the past, which had served as a pretext for bad practices in environmental terms. This contrast is viewed as one of the issues that have made it most difficult for farms to adapt to the new standards with the minimum possible costs. Hence, the new, more restrictive criteria in relation to the management of slurry, animal welfare, water consumption and so forth have been interpreted as unfounded ‘impositions’—according to the farmers—which are often impossible to comply with (‘If this was strictly applied, 30% of the cattle in Catalonia would not be allowed to urinate because there’s not enough land to put all the nitrates that cattle produce’, FG1). The farmers feel victims of mismanagement by the administration; the aforementioned problems have existed for years and, according to the farmers, now the administration wants to resolve them, without there being much likelihood of this happening.

The discourse forwarded by all of the groups of farm owners tended to coincide in addressing three central aspects of dairy farming that conflict with environmental protection. These are aspects that coincide with the environmental externalities of the dairy sector summarised in the international literature. First, a discourse emerged on the problematic management of slurry and manure, a problem that is particularly noted by those farmers with little territorial base. They recognise that one of the problems with slurry is its pollution of soil, water and air, a problem that is accentuated in areas with a high density of intensive livestock. The manure regulations in force (Decree 153/2019) prescribe the existence of a manure plan at each farm, which must record the production and planned use of slurry and manure, as well as all the entry and exit movements of slurry and manure from each farm. The farmers’ discourse is critical regarding the maximum 170-kg nitrogen/hectare per year in vulnerable zones established by the regulations; this amount can vary up to 210-kg nitrogen/hectare in non-vulnerable zones (with a lower density of farms). As previously mentioned, the criticism is based on costs, as well as the volume of administrative work this regulation entails. The latter tends to increase the bureaucratisation of farms, even the smaller ones, and adds up to extra costs in those cases that need and are able to outsource this type of work—which is not always the case with smaller farms due to the high cost (‘it involves a huge amount of work... either you use up your own time or you have to pay someone to do it for you’, FG1).

Criticism of the increased costs linked to this regulation is associated with several situations:

- A. Farms with an insufficient territorial base see themselves as being ‘forced’ to seek land from other owners to deposit their waste in exchange for financial compensation. In areas where there is a lack of land that legally accepts waste, and for farms that have had to grow to try to be economically viable and therefore have more livestock, costs can increase significantly.
- B. Farms facing possible economic sanctions in cases exceeding the maximum established by law.
- C. Compliance with regulations involves controlling livestock numbers and feeding, given the relationship between the amount of nitrogen and the latter aspect. This means additional veterinary and food monitoring, which increases costs.

These situations end up representing real breaks for these dairy farmers with regard to developing their farms. They also give rise to a contradiction, which emerges in the discourse in the form of a dilemma: Comply with these regulations by reducing livestock as a mechanism for reducing the amount of waste and nitrogen, in a regime that actually supposes a maximum production quota; or increase—or maintain—livestock and production in order to obtain higher yields and be able to pay possible penalties in the event of exceeding the permitted nitrogen limits. However, this type of dilemma does not present real solutions for farmers; rather, it reveals the ‘double bind’

they find themselves in: Whichever path they choose, they will be ignoring one of the demands that guides their attitudes and discourse. It is worth noting that the groups were not able to collectively construct a discourse based on solutions, either imaginary or real. Therefore, it seems that there are currently no concrete formulas in the collective consciousness of these cattle farmers that make it possible to reconcile environmental interests with those of their farms. Hence, the paralysis manifested by the farmers themselves.

- What happens, of course, is that manure is shit, and you have to throw shit away in order to run the farm, but that's another issue. Also, in our case, where the farms were originally small, and we dedicate ourselves to... we are gradually closing down and leasing someone else's land (...). The issue of manure does generate significant costs today. But on small farms. And the ones that aren't small have grown so much that they have the same problem. (FG1).

A second aspect has been the cost of water. Farmers' main criticism is the rise in the price of water, specifically the application of a tax aimed at consumption and pollution. Dairy cattle involve a significant expenditure on water, much of which is for the animals themselves (Clay et al., 2020). Farmers see this action by the administration as an arbitrary intervention on a public good. However, they are not able to recognise that 'public' does not mean 'freely available', and this is implicit in their criticism. The rise in the price of water and the system for calculating the quotas of the tax are viewed as 'unfair' damage to the productive needs of their farms. The farmers put forward this same line of criticism regarding the 'illegitimate appropriation' of natural resources with regard to other issues: regulations that prohibit the free use of rainwater or fears regarding the EU's expected introduction of a tax on polluting gases from cows.⁴

Third, the incorporation of measures to promote animal welfare involves mobilising health and control systems aimed at monitoring the health, feeding and so forth status of livestock. The significance of these processes is viewed from a productivist perspective: The discourse links animal welfare with increased productivity. Defending themselves against the image that relates industrial farming with animal discomfort (María, 2006), the farmers, owners and non-owners alike positioned themselves as having the most interest in guaranteeing the welfare of their animals. In their accounts, they compared their farms to animal 'clinics', the work of a cattle farmer even being compared to that of a 'doctor' in FG3. Small owners specifically mentioned their hiring of veterinarians and nutritionists, who ensure that the animals are in good health. However, the discourse did not fail to reveal a contradiction and the limits of progress in this direction, certain standards related to animal welfare entailing added costs. For example, the prescription of a minimum of 2-m² per cow on farm premises in some cases means expanding facilities or facing penalties in the event of non-compliance. Sanitary controls also represent important costs for these farmers.

CONCLUSION

In this article, we have analysed the context under which the crisis experienced by the majority of dairy cattle farmers in Catalonia is taking place. Capitalist modernisation and industrialisation within neoliberal European governance frameworks have placed a majority of farms in a paradoxical and 'double bind' situation. In the first place, we have found that the increase in production has not gone hand in hand with an increase in profit margins, rather the opposite, and very particularly in the case of small and medium-sized farms. Among the aspects that hinder economic viability, we find the oligopsonic market structure, which has acted as a veritable

regulatory mechanism since the end of the quotas in 2015, along with price volatility and some aspects of the aid scheme for livestock activity, which ultimately represents a double-edged sword. This situation is experienced and conceived by farmers as a 'double bind' relationship, which reveals tensions between productivist strategies that meet market requirements and post-productivist demands or necessities, that is, complying with environmental regulations. On the one hand, in the face of subordination to the dairy industry and the price crisis, they develop a productivist discourse according to which, having left the quota regime behind, more production and efficiency means greater economic performance since it allows for the possibility of profit. This is an expectation that despite everything, the majority of farmers see as unfulfilled, to a large extent, due to the power exercised by the industry in its purchasing of milk. On the other hand, we have observed an environmentalist discourse that harasses cattle farmers and contradicts productivism. These dairy farmers feel that they are subjected to 'harassment' when it comes to environmental regulations, the significance of which is seen in terms of 'cost'. Thus, compliance with these regulations means slowing down productivity and assuming higher production costs, in a context of low economic viability. Faced with this contradiction, they are unable to articulate an alternative discourse that addresses the compatibility of livestock farming and environmental protection. The solutions that they propose are either abandonment, an increasing amount of which has been witnessed among Catalan and Spanish farmers, or the growth of farms, where possible. However, the latter does not avoid the vicious circle of productivism versus environmentalism.

This path being followed by Catalan dairy farmers, which for now has no exit point, leads to another of the aforementioned paradoxes: the social one. The two solutions included in the discourse would mean the end of family farms, particularly the smallest ones, either because they have to abandon the activity or because they become 'entrepreneurial farmers' with different farm sizes but with a tendency towards concentration and, most importantly, dependent on and subordinate to the logic of the milk market. We do not interpret this process as a historical necessity but rather as the direction and consequences derived from the development of capitalist agribusiness and neoliberal policies.

There can be no doubt that the crisis in the sector and the paradoxes that accompany it project an uncertain future for many farms. Our findings suggest that in territories such as Catalonia, however capitalist it may be, the small family farm is in the process of disappearance, with the social, cultural and economic consequences that this may imply for the territory. We know different aspects of the negative impact that industrial livestock and large farms have on the territory. The disappearance of small farms does not, therefore, seem to be compatible with social and ecological limits.

If alleviating this process of disappearance is on the political agenda of social movements and/or governments, then a change in farmers' outlook is required to consolidate a certain collective consciousness: in this context, cooperativism is among the more realistic (although not simple) options. This formula would make it possible to strengthen farmers' bargaining capacity, moving from an individual and weak position to one of a stronger and collective one. According to some studies, this approach has had favourable results for a majority of farmers (Hanisch et al., 2013) as has the involvement of administrations in regulating the market and particularly in mediating milk purchasing contracts. On the other hand, some recent studies have pointed out the need to orient dairy policies towards sustainable intensification, multifunctional agriculture and agroecology (Clay et al., 2020). For example, taking advantage of higher concentration of fat in the milk of small farmers, possibilities for diversification of dairy activities (production of cheese, etc.) may be proposed to these farmers, despite the financing difficulties that this may imply. The possibilities of developing these proposals and their impact remain to be seen.

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CONFLICT OF INTEREST

The authors are not subject to any conflict of interest in this article.

DATA AVAILABILITY STATEMENT

Research data are not shared. The data arise from the following sources:

- 1) Surveys conducted by the Autonomous Government of Catalonia's Department of Agriculture, Livestock Farming and Fishing (DARP). For more information see: <http://agricultura.gencat.cat/ca/departament/estadistiques/ramaderia/sectors-ramaders/bovi-llet/>
- 2) The latest available data from the farm accountancy data network (FADN) for 2016. It provides trends in milk margin per tonne and in income per annual work unit from 2007 to 2016, together with estimates of gross milk margins for 2017. The sample of milk specialized farms in 2016 represented 85% of dairy cows and 90% of EU-28 milk production. For more informations see: https://ec.europa.eu/agriculture/rica/publications_en.cfm
- 3) Data provided by the Milk Market Observatory. Available in: https://ec.europa.eu/info/food-farming-fisheries/farming/facts-and-figures/markets/overviews/market-observatories/milk_en
- 4) Data from Eurostat and the Catalan Institute of Statistics (Idescat), with data taken from the Farm Structure Survey and EU milk and dairy product statistics.
- 5) The qualitative data are derived from the transcripts of the focus groups and interviews.

ORCID

Marc Barbeta-Viñas PhD  <https://orcid.org/0000-0002-3630-3367>

Marina Requena-i-Mora PhD  <https://orcid.org/0000-0001-5519-3127>

ENDNOTES

- ¹ In 2018, some of the main dairy companies were fined €8.6 million by the National Commission of Markets and Competition for anticompetitive actions and monopolistic practices. See <https://www.cnmc.es/gl/node/375940>
- ² The average farm in Catalonia in 2020 presents the following values: 180 cows present. See Table S2 and Figure S1 apéndices.
- ³ Linguistics defines referred discourses as those that the speaker develops through a statement made by another subject, originating outside the speaker's context (Voloshinov, 1973).
- ⁴ See www.fao.org/gleam/results/es/

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