

Questioning Bacteria. How Farmers in North-Eastern Poland Resist Forced Progress

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Abstract

This article is based on ethnographic fieldwork in Poland and concerns lack of trust towards expert knowledge amongst farmers living in a rural municipality in north-eastern Poland. It investigates farmers' accounts on fraud concerning supposed frauds related to laboratory milk assessment based on food safety standards. Questioning the reliability of laboratory tests is interpreted as a form of resistance. This phenomenon is presented in the context of changes which occurred in the Polish agriculture in the last twenty years, related to Poland's accession to the EU, increase in farms' productivity and multiplication of standards and regulations related to milk production. Key concepts used to interpret farmers' resistance are Michael Foucault's « biopower » and « common sense » in the understanding proposed by Clifford Geertz.

Key words : ethnography, agriculture, expert knowledge, common sense, progress, biopower, resistance

Introduction

This article is based on ethnographic fieldwork conducted in a rural municipality located in the Podlasie region in north-eastern Poland. As part of my fieldwork I carried out interviews and engaged in participant observation. My interlocutors were agriculturists producing milk on small family farms. On average they had twenty to thirty cows and cultivated twenty to thirty hectares (equivalent of fifty to seventy five acres) of land. Most of them sold their milk to Mlekovita, currently the largest dairy cooperative in Poland. Like other Polish dairies, Mlekovita controls the chemical composition of milk through laboratory tests and calculates product value based on results. I noticed that my interlocutors from Sokoly doubt the integrity of those tests. During my fieldwork I gathered various accounts concerning milk assessment frauds of which my interlocutors accused the dairy cooperative. In the presented text I am going to investigate on this phenomenon.

It is not my aim to determine, whether the reports on unreliability of milk evaluation are true or false. I believe that spreading negative opinions about someone – in this case about Mlekovita – can be considered a form of resistance in itself, as this has been the case for petty resistance carried out by the peasant's in Sedaka described by James Scott (1985). In order to gain a better understanding of this resistance and to determine what it reveals about power, it is necessary to present the context in which it occurs. I am going to describe the consequences of some changes which occurred in the Polish agriculture within the last twenty years, especially those related to the increasing importance of expert knowledge, as well as to the appearance of norms and regulations based upon it. With the help of concepts of Michael Foucault and his continuators, I am going to show how expert knowledge is entangled with power in the reality of milk producers from Podlasie.

Progress, intensification, exploitation

What I perceive as lack of trust or resisting expert knowledge happens in the context of a specific socio-economic reality, but also, or perhaps above all, in the context of a common sense which farmers have constructed based on their local knowledge (see Geertz, 1983; Nygren, 1999). I am going to analyze a part of this knowledge which farmers revealed to me during my fieldwork in order to understand the sense of resistance. In this chapter I will be interested in concepts used to describe recent sudden changes in agriculture.

Modernization of agricultural production in Poland has a complex genealogy. I focus on the consequences of changes which occurred in the last fifteen to twenty years and which were related to Poland's accession to the European Union (including the preparational period). Generally speaking, the changes were following:

- Replacing of a large number of small farms with a small number of large ones,
- Increase in risk of bankruptcy of one's farm followed by unemployment,
- Mechanisation of agricultural production,
- Emergence of inevitability in use of fertilizers and chemical plant protection products,
- Standardizing of mass food production and, as a result, a shift in its quality (understood by various actors as deterioration or improvement),

- Increase in productivity of farm animals, as well as biological and cultural phenomena related to it¹,
- Subordination of production process to complicated norms and regulations,
- Bureaucratization,

Increase in importance of scientific knowledge and laboratory tests to agricultural production.

In her article *The Trojan Pig: Paradoxes of Food Safety Regulation* (2003), Elizabeth Dunn pointed to the instrumental role of the discourse describing food produced in EU's new member states as dangerous. She highlighted the fact that the introduction of strict norms concerning rural production had two objectives. The point was not only to increase the quality of products, but also to eliminate small farms, which were not ready to face the costs of investments which were necessary to meet new requirements. Poland's small farms were viewed as inefficient and constituted a challenge for EU's subsidy system.

Dunn's critical approach is shared by Diana Mincyte (2011), who described the reality of contemporary rural Lithuania as fundamentally different from what can be observed in Podlasie: despite EU's attempts to eliminate semi-subsistent farming, rural people owning several cows still transported their milk to cities and sold it directly to the consumers. Mincyte pointed out that in Western Europe small scale production and alternative distribution networks were supported for the sake of value attributed to tradition and rural lifestyle. Meanwhile, in Central and Eastern Europe small farms were depicted as backwards, inefficient, constituting an obstacle to development, and their products as potentially dangerous. According to Mincyte, small farmers were not represented in negotiating the conditions of these countries' accession. As an effect, these conditions benefited processing companies, for whom it was easier to cooperate with large rather than small farmers. It was also of great importance that semi-subsistence farmers, who consumed a significant part of food they produced and who participated in alternative distribution networks, were difficult to control. Both Dunn and Mincyte stressed that the decisions which lead to the collapse of small farms were deliberate and that they had a negative effect on the poorest and most vulnerable rural households.

In Poland, where farms do not sell milk directly to consumers, the distribution is more closely controlled. Elizabeth Dunn described, using the example of Poland's pork industry, the consequences of imposition of food safety standards in the before accession period. The

¹ More on this matter in chapter «New and Unnatural».

emergence of new, stricter regulations has led to a shift of power from producers to processors, responsible for controlling whether the product met the imposed standards. However, strategies and values shaped under the socialist system were of large importance : farmers had learned to use their social capital to resist the socialist state and were now ready to use these abilities in order to bypass the standards imposed by EU and large processing companies. The anthropologist expected the shift of power to be neutralised by farmers' local social capital, which large international concerns inevitably lacked. She warned that in future strict food safety standards in postsocialist states could encourage corruption and lead to the establishing of grey markets. Hence, paradoxically, imposition of norms could have a negative effect on the safety of food that was soon to enter European markets.

Today, fifteen years after Elizabeth Dunn wrote about Trojan pigs, the restructuring of Polish rural economy, which was part of EU's policy towards new member states, is an ongoing process. Although the persistence of some farms and the fall of others is often determined by particular life situations of farmers, it is clear that not all farms can survive. While the increase of production is necessary in order to support a family, there's only a limited amount of land to be cultivated. The direction of changes seemed clear to my interlocutors. I asked Magda², a young wife of a farmer, and Adam, her brother in law, about their forecasts for the future of small farms in their neighbourhood. Magda replied, that she thinks farms with less than twenty cows will not exist in five years, and Adam added, that those with thirty cows will also consider going out of business. The young woman concluded that one has to either expand or close down (Lip_AP).

My interlocutors often referred to certain changes as «progress» (*postęp*). I use this term as a local category, without accepting any scientific theory of progress or making any points about the nature of development in human history. I do not assume that progress is inevitable or positive at large. The definition of progress which emerges from my interviews is far from being holistic. It is, rather, a collective term for some arbitrarily chosen changes occurring in different domains of life, as well as an explanation of why these changes occur. One could say that some phenomenon is itself progress, or that it occurs because of progress. Some of the terms which my interlocutors used in similar contexts, and which I thus consider as synonymous to progress, are civilization (Mar_TC), the course of the world (*bieg świata*, Mar_TC), the rush of time (*pęd czasu*, Lip_PJ), development (Lip_AP and others), intensification (Mar_BR) and intensive exploitation (Mar_BR, Mar_RS and others), modernity

² All names of interlocutors were changed.

(Mar_TC and others), and in some contexts also economy (understood as a factor which enforces certain behaviours, Mar_TC and others).

Progress is ambivalent. It explains both negative phenomena (eg decrease in cow's lifespan) and positive ones (eg improvement of people's quality of life, central heating and bathrooms in households). At times the term is used ironically. It is difficult to indicate criteria, according to which some changes are classified as progress, while others are not. Some of those, which are pointed out as progress, are part of larger global trends. Jozef, a crop producer on the eve of his retirement, claimed that changes resulting from progress can be easily predicted in Poland, because they first occur in the West (Lip_PJ). Progress is also associated with the disappearance of a fixed order of things (e.g. an increasing number of divorces, the reluctance of children to inherit the profession of a farmer) and is hence related to the category of unnaturalness. This aspect of progress can be best illustrated by a fragment of my conversation two women of approximately sixty-five years of age. The women explained that these days cats don't know how to catch mice anymore. One of them ironically concluded, that this is because everything changes with progress.

Although particular events and changes related to progress can be understood as results of decisions and actions of a particular subject, progress itself is portrayed as an impersonal and non-controllable force changing the world. Tomek, a young farmer owning a small milk farm, described progress as a direction in which the world heads, constantly accelerating. According to him, people could choose to detach themselves from the speeding world and live according to their own values and convictions. However, if they wanted to live as part of the society and support themselves, they had to adjust to changes. Interestingly, Tomek associated this optional detachment from progress with ecological farming (Mar_TC). It must be stressed that his account is quite unusual among my interlocutors. However, although changes in agriculture related to progress are in most cases introduced by farmers themselves, these actions are often motivated by economic necessity or by the existence of norms and regulations. Farmers consider changes in agriculture as caused, simultaneously, by abstract laws of market economy which are responsible for the « acceleration of the world » and by interests and actions of particular subjects, such as the EU, clerks, politicians, or companies. It is the forced nature of progress that is crucial to understand the problem discussed.

New and unnatural

Policies, laws and norms regulating milk production can be described with Foucault's concept of biopower (see Foucault, 1978). In their analysis of four British policy documents,

Lewis Holloway and Carol Morris (2007) described how the notion of biopower can be applied to explain issues related to governing of populations of farm animals. Like Rabinow and Rose (2003), Lewis and Holloway distinguish three elements composing the concept of biopower. Firstly, it is necessary to come up with « one or more truth discourses about the ‘vital’ character of living human beings, and an array of authorities considered competent to speak that truth » (Rabinow and Rose, 2003, p. 3). Secondly, strategies of intervention in the lives of a population need to be developed. Thirdly, there must exist means of creating self-regulating subjects. The first condition is, of course, problematic, as it is clear that, whether this is true for all species or for most, it is hard to make animals govern themselves. Holloway and Morris thus suggest that in the case of farm animals, biopower articulates itself in the human-animal relations. As an effect of these relations, farmers become obedient subjects, engaging in practices of regulating, monitoring and gathering information. In the case of farmers from Sokoly, biopolicies introduced by different institutions (the EU, state administration, dairy cooperative) achieve their goal. Farmers regulate lives of animals to produce as much milk as they can, and get the best price for it.

Agricultural policies and market conditions force farms to produce a lot of milk with high fat and protein content and low content of bacteria and somatic cells³. Contemporary farms have too many cows to practice grazing. Instead, farmers use high-protein feeds and search for cattle which is genetically adjusted to a more efficient production. In the conditions of forced progress, cows change. Nowadays cows produce a lot, but they live short. According to Jozef, a cow used to live twelve up to fifteen years, but today one that is six or seven years old is considered old and useless. He explained that nowadays a cow must be efficient and that the feed changes a lot. He claimed that with the nutritional components, the natural was replaced with the artificial (Lip_PJ).

My interlocutors pointed out that the shorter lifespan of a cow is due to its « intensive exploitation ». The increase in productivity, achieved by high-protein nutrition which Jozef described as unnatural, is described as radical (Lip_PJ). For instance Antoni, a retired farmer helping his son to run a farm, told me that back in the days in winter a cow would eat some straw and hay, and give five up to seven liters (approximately 1.5 gallon) of milk per day, while contemporary record holders give up to sixty (approximately sixteen gallons) (Mar_RS). It is important to note that when speaking about the large difference between lifespan and performance of cows a few decades ago and today, my interlocutors often compare what is

³ More about milk quality requirements in chapter „Expert knowledge encounters resistance”.

being remembered about the small, local family farms with information about large industrial farms they learn from the media.

When cows undergo physical changes, people's attitude towards them also changes, as it was explained to me by Tomek. The young farmer regretfully declared that cows are exploited and then thrown away for scrap, when they bring a sufficient income and are no longer needed. He compared a contemporary cow to a laboratory which serves to produce as much milk as possible in the shortest possible time (Mar_TC). This point of view was shared by numerous interlocutors, who described cows (although usually not those of their own) using metaphors suggesting that animals resemble machines. Cows are commonly compared to factories or conveyor belts. However, although increasingly similar to a factory, a cow remains a living organism, which not only can get worn out, but also suffers. Antoni told me that he had read in an agricultural magazine about cows which bring up to thirteen thousand liters (3.5 thousand gallons) of milk per year. He said such cows were little factories which constantly looked as if they were ill, lying and moaning because of the amount of feed they have eaten. The farmer clarified that his own cows lived longer than such productivity record holders (Mar_RS).

Contemporary *factory-cow* requires specialised care, and farmers need expert knowledge and money to provide it. Jacek, a former farm owner, told me that if one doesn't invest in nutritional supplements, the cow's organism won't be able to make it in such conditions. Jacek, too, described a cow's body using a mechanistic metaphor, as he said that all it takes is one cog in a wheel to fail for the whole factory to fall into pieces (Mar_MF). Many interlocutors stated that when a cow's organism is overexploited, it becomes sensitive and vulnerable. Nowadays cows are more than ever exposed to illnesses and deficiencies, and this carries a double financial risk for farmers. Cow's illness not only exposes the farmer to the costs of treatment and, in case of animal's death, the loss of invested money, but also may impact the quality of milk and lead to financial consequences of not complying with standards. This may be the case when a cow has mammary gland inflammation, a condition increasingly common among highly productive cows, which effects in the presence of harmful pathogens in milk. In order to avoid such risk, farmers often give antibiotics to cows not only in case of sickness, but also prophylactically (Lip_WP).

As the hybridisation of cows is progressing, farmers start feeling that milk is also unnatural, artificial and thus of inferior quality. Paradoxically, in the era of increased rigidity of standards, many of my interlocutors believe that milk is worse than ever. Milk evaluation standards are based on the assumption that what makes high quality milk is its chemical

composition, which can be evaluated through laboratory tests. It is implicit in the European food safety policy that large farms are easier to control than small ones, so the food they produce is safer (Dunn 2003). Meanwhile, many of my interlocutors prefer food which omits the control process, such as eggs from hens kept in one's own yard or meat from pigs kept for the private use of a farmer. Marta, a nineteen year old woman from farmers' family told me that in the past milk in the countryside was better than it is now. She explained that this is because back in the days cows were grazed on fields, they all had names, and people could caress them or even talk to them. To her, good milk had to do with the emotional relation between humans and animals, and with the traditional country landscape (Mar_MM). According to Józef, nowadays the milk is bad also because the cows suffer in closed cowsheds lacking fresh air (Lip_PJ). These statements of my interlocutors reveal a dissonance between local criteria of milk assessment and those acclaimed by the dairy company. As an effect, farmers produce milk which meets dairy's criteria concerning its biochemical composition, but they are not convinced that they produce good milk.

Expert knowledge encounters resistance

As the lorry driver collects milk from the farm, he takes samples, which are then examined in Mlekovita's laboratory⁴. The milk is assessed according to standards which were imposed by the Polish state in the before accession period as an effect of the pre-accession negotiations⁵. Milk from every collection is checked for antibiotics and other undesirable substances. Apart from that, twice a month another sample is taken that is later evaluated to determine the amount of fats and proteins (the more the better) as well as somatic cells and bacteria (the less the better). Somatic cells, or, in other words, cows' body cells, appear in milk naturally. Those are mainly the cells of cow's immune system. However an increased number of them points to a bad health condition of a cow (Kehrli & Shuster, 1994). An increased amount of bacteria is mainly caused by insufficient hygiene. In order to avoid problems, one must assure general cleanness inside the cowshed, pay attention to the hygiene of cows' mammary glands and regularly wash and disinfect milking equipment. Based on the geometric mean of the levels of bacteria and somatic cells, milk is assigned to a superior or an inferior class. The dairy buys inferior class milk, but pays for it below the cost of production.

⁴ I describe the milk assessment process based on information provided by my interlocutors, which I compared with the accounts of several Polish online agricultural guides and the website of Mlekovita.

⁵ The standard which is currently in use for the milk assessment process is determined by the resolution no. 4/99 of the Polish Normalization Committee (PKN) dated February 9 th 1999 ("Polska norma na mleko surowe do skupu," 2001).

At the beginning of my fieldwork in September 2016, when I was still looking for my research subject, I talked to a retired farmer named Tomasz (Wrz_RF). During the whole interview he obstinately believed I was a journalist, despite all my attempts to convince him that I wasn't. Tomasz described, in a lively manner, the low prices of milk, the excessive requirements of different institutions, and the tough life of a farmer. He quoted a Polish proverb stating that, from mouse to the emperor, everyone lives off the farmer. He also made several attempts to suggest that he knows about certain frauds related to Mlekovita's laboratory milk assessment, although he wouldn't put it straight, and it made me think he wanted me to figure it out myself. He told me about a curious experiment, supposedly carried out by some farmers he was himself acquainted with. According to him, two farmers divided milk from one milking between themselves and both brought their share to a milk-collection point on the same day. They then found out that the test results for the bacteria level differed between each other⁶. Tomasz thought this was because Mlekovita discriminated against unruly farmers.

Although the validity of this experiment could be questioned, this story has left me with two important findings. First, the farmers made an effort to gather evidences for laboratory's dishonesty (or at least one could think of such scenario), probably being well aware that these could not be used in any legal procedure. Second, Tomasz was eager to direct the attention of a person he considered to be a journalist towards milk assessment frauds. Attempts to gather proofs and spread gossips about the supposed abnormalities can be understood as resisting the power of the dairy company and the standards it enforces. My encounter with Tomasz inspired me to search for further evidence of resistance against laboratory examination of milk. To my surprise, the account of Tomasz was shared by a lot of farmers, although some of them less eager to talk about it. In my interpretation of this resistance I will be using the method proposed by Lila Abu-Lughod (1990). Having agreed with Foucault's statement that resistance is never in a position of exteriority in relation to power, Abu-Lughod used ethnographic data on resistance to diagnose power. Following her example I will try to understand what one particular kind of resistance, which is questioning the reliability of laboratory milk testing, can reveal about power, in this case so closely related to expert knowledge.

Tomasz had ran a milk farm which he later passed on to his son. Since the farm was too small for the dairy to agree to collect their milk with a lorry, Tomasz and his son had to deliver the milk to a nearby collection point. When I asked Tomasz how does Mlekovita assess the amount of bacteria in his milk, he answered that «they have their apparatus. They take small

⁶ As tests for bacteria are carried out twice a month on random days, this story does not seem probable.

samples and, you know, take them to the dairy... to the laboratory, and check them. Not optically, but samples. And they check it there. And how this works, I don't know. But the outcome is the way it is». This short passage reveals several ways in which the farmer is being excluded from the evaluation process. The product, instead of being assessed in the collection point in front of the farmer, is being taken to a distant and inaccessible space of a laboratory. The examination is carried out using specialized equipment («apparatus»), and with methods unknown to the farmer («not optically, but samples»). The whole process is being spoken about using a scientific language, which the farmer tries to mimic, but would certainly not consider as his own. The farmer is excluded from the process both through change of space and through use of language he does not operate with. I then asked Tomasz whether he thinks bacteria really is present in the milk if Mlekovita says so, and he responded that it may be there, but this is not certain. Later on he came up with more specific accusations, claiming that it is possible for the dairy to punish certain farmers for their outspokenness.

The case of Tomasz is not an isolated one. Małgorzata, an approximately 50 y.o. farmer, told me a story about Mlekovita's dishonest lorry driver. There was a time when Małgorzata's farm had a problem with an excessive amount of bacteria in their milk. This caused conflicts between Małgorzata and her husband, who had accused her of not washing the milk tank sufficiently. Only after the driver who used to collect their milk and take samples for tests had retired, did the situation go back to normal. Some time later a neighbour avowed to Małgorzata that he regretted that the driver had left, because with him it had always been possible to arrange for the test results to be satisfactory. My interlocutor assumed that the driver had taken bribes from her neighbour for swapping samples of milk. As an effect, the neighbour had always had superior class milk, while the milk from Małgorzata's farm had often been classified as inferior (Lip_WP).

Some accusations were made in regard to the Milk Festival. This yearly event organised by Mlekovita was subject to controversies, because it was indirectly paid for by the farmers themselves. As Małgorzata has remarked, the cooperative used the money they had earned on selling their milk in order to pay for the performances of celebrities. However, according to her, this was not the only problem. In fact Małgorzata believed that Mlekovita manipulated test results in order to pay less for the milk and save money to pay for the festival. She claimed that she had noticed test results for fats and proteins being less favorable for her on the month of the festival. She also asserted that this was also the case for other farmers she knew. Several other interlocutors would explicitly express a similar view or suggest that this was possible. According to some of them it was the tests for bacteria or somatic cells that were being

manipulated. Marta enigmatically stated that in the festival period Mlekovita would pay 5 *groszy* (less than two cents) less per liter of milk, but she wouldn't precise what was the reason for this (Mar_MM).

However, not everyone believed in such rumors. Wanda, a middle-aged farmer, told me that some people would say that Mlekovita pays less for the milk because they need to afford celebrities. She laughed as she claimed she did not herself believe in such baloney (Lip_MS). A local driver, who offered me a ride as I was hitch-hiking, told me that this sort of beliefs were typical for Sokoły, which was « more rural » than a neighbouring municipality he lived in. This kind of skeptical or even mocking remarks show that the rumor about milk assessment frauds is widespread.

The apparentness of fraud

“And when, after listening to a long, complicated business from an old, illiterate, no-nonsense Javaneese peasant woman – a classic type if ever there was one – about the role of «the snake of the day» in determining the wisdom of embarking on a journey, holding a feast, or contracting a marriage (...), I asked what this snake of the day looked like and was met with, «Don't be an idiot; you can't see Tuesday, can you ?» I began to realize that patentness, too, is in the eye of the beholder.”

Clifford Geertz, “Local knowledge as a cultural system”, 1983, p. 91.

For Geertz (1983), common sense is differs across societies. In certain contexts the truths it carries appear as so obvious that no one ever questions them. The anthropologist writes that «the notion of common sense has been rather commonsensical: what anyone with common sense knows». For Geertz's Javaneese interlocutor it is as evident that no one can see a snake of the day, as it was for my interlocutors that every powerful institution has it ways to cheat and take advantage of those who are weak. Even if some of them did not share any particular suspicions, did not recall any examples of frauds, or were simply not interested in this subject, it was crystal clear that milk assessment by Mlekovita was not fully reliable.

When I asked Jolanta, a middle-aged farmer, if she trusted in milk laboratory tests, she said there was no other way, because farmers don't have any control over it. Since her farm

cooperated with an independent milk assessment company⁷, I asked whether their results are convergent with those provided by Mlekovita. She rightly remarked that it is impossible to compare dairy's tests with those of the other company, as they are carried out on different days and with differing frequency. However, later on she added that usually the results are not alike. I asked her if there is any tendency in how the results differ between each other. The woman laughed and asked me what would I do, had if I myself worked for Mlekovita. Then, still laughing, she asserted that there is no point in asking such questions (Mar_BR). I concluded that Jolanta's conviction about milk test results being necessarily unfavorable for the farmer comes from the notion that she has no control over what is going on in the laboratory. A laboratory is a space managed by powerful institutions and so it is apparent that those who are weak must lose.

Teresa, a divorced woman who ran a farm with the help of her now grown up sons, also did not give a clear answer to whether or not she trusted the dairy. Back in the days when her sons were small and so was their farm, they used to take milk to the collection point. At the time they used to have lots of bacteria in their milk and the woman would wonder whether the results were just. However, as the family did not experience problems related to milk assessment anymore, the woman stopped troubling herself with this question. She told me that she knew of some attempts made by other farmers to get milk tests done in another laboratory, but these were not honoured by Mlekovita, and so the farmers had given up (Mar_PP).

Milk assessment frauds, even the most evident ones, were never considered a good reason to change to another dairy cooperative. In most villages across Sokoły farmers had no choice, as lorries from other dairies did not go as far. However, even in those villages, located on the edges of the municipality, in which different dairies competed between each other, the decision-making factor was usually the price of milk, long tradition of cooperating with one dairy or another, or being a shareholder in one of them⁸. When I asked farmers whether problems with unjust milk assessment could not be solved by switching to a different dairy, in most cases the answer was no, since all processing companies were the same. One could dispute about frauds between neighbours or spread gossips, and when frauds really made themselves felt, search for interim solutions. For instance, one of my interlocutors in an act of desperation

⁷ Some farmers have their milk tested by an independent company, PFHB (Polish Federation of Stock-Farmers), in order to gather information about their livestock. I explain their reasons for using PFHB's services in the next chapter.

⁸ A small percentage of farmer's monthly pay is kept by the cooperative and turned into farmers' shares. When a farmer decides to end their cooperation with a dairy, they only receive their share value after several years. This practice is used by dairies to keep farmers from changing to another dairy for the cause of a better price of milk.

decided to make an anonymous phone call to Mlekovita and complain about a particular employee, supposedly involved in unjust practices against farmers. Although the accusations seem to be serious, never have I heard of any direct confrontation or a court case between a farmer and Mlekovita over milk examination, or of a farmer who decided to switch to a cooperative they considered more reliable. I think that this state of affairs arises from two other obvious truths of common sense. The first one states that a regular man or woman will never defeat a mighty institution (or at least they will not accomplish it by following a formal procedure). The second one asserts that all institutions are the same, so unnecessary messing around can only lead to more trouble.

Geertz (2005) believes that common sense thinking arises from the need for reality to appear as understandable. He proposes a new interpretation of Evans-Pritchard's famous work on witchcraft among Azande. Witchcraft «is the flouting of Zande notions of natural causations». If outcomes of people's actions are different than one could expect – a clay vessel was produced by an experienced potter with obedience of all rules of the craft, but it breaks anyway ; a boy stubs his foot on a tree stump despite walking carefully – witchcraft is to be blamed. Although simple analogies between distant cultures must be approached with caution, I believe that in some contexts a conspiracy or a fraud fulfills a similar function to that of Zande witchcraft. No wonder test results are alarming if one mixes milk of a sick cow into the daily milking or negligently washes the tank. However if there was no malpractice on the side of the farmer, and the milk is assigned to an inferior class anyway, it is evident that someone is purposefully working against him or her.

Loss of control over production process

People in Sokoły often said that the farmer «lives on his/her own land» (*żyje na swoim*). Using the language of Marx, one could say that unlike a laborer who sells their work force, a farmer is the owner of their means of production (Marx & Engels, 1985 [1867-1870]; Schaff, 1999). It has to be pointed out here that in order to survive, farms often have to take loans. In local understanding, a farm which is in debt is not *fully* a property of a farmer. The lending institution is often the dairy cooperative itself. This can serve as an example of a shift of power described by Elizabeth Dunn (2003). Nevertheless, a typical farm in Sokoły is run by members of one family, who are the owners of the buildings and animals, and of at least some of the land they use. And yet farms which still produce milk after the restructuring of agriculture in Poland were forced to adjust to a new situation, in which they have but little space for independent decision making related to the production process.

This situation, paradoxical from the point of view of marxist theory, is caused by factors related to progress: the occurrence of phenomena considered as strange and unnatural, subordination of agriculture to external (bio)politics, regulations and standards regarding quality, and collection of data concerning animals by external institutions. Forced development is a situation, in which farmers' knowledge about the production process is marginalized by the expert knowledge. Everyday practices on the farm are being determined by biopower consisting of policies and legal acts which define in what conditions an animal may be kept, what sorts of food it can eat, what are the circumstances in which it may be killed, how can it be treated in case of sickness, what information related to its life must be gathered, as well as, most importantly, those concerning practices related to the assessment of the product. I think that the particular relation of biopower described by Lewis Holloway and Carol Morris (2007), consisting of controlling the lives of animals through turning their owners into obedient bodies, has a side effect. It produces a notion of loss of control over the production process. This happened particularly because of (1) the expansion of bureaucracy, (2) the emergence of a multitude of regulations and potential controls, and (3) the increase in complexity of knowledge related to the production process and its monopolization by entities with appropriate scientific equipment and expert knowledge.

Antoni and Katarzyna, farmer's parents actively helping their son in agricultural production, told me that they had heard that in future healing cows with antibiotics is to be banned, and cows would be put to death once they get sick. I asked about their opinion on such regulation. I expected that they would express strong discontent with the idea, and I was surprised to hear the first response they both gave me. They simply said that have no influence on this decision, because it's related to EU law which already functions in Germany. I realized that changes which come from the west and depend on decisions made by EU politicians seemed so inevitable to them, that their own objections appeared as irrelevant. Only when I insisted, they said that they would prefer to continue using antibiotics (Mar_RS). I noticed that I would receive this sort of answers very often if I asked people what do they think about certain laws and reforms. Maria, a farmer aged 50, was not pleased with the fact that a farmer has to present and follow a business plan in order to receive an agricultural dotation from the EU. She commented on this obligation saying that « today one lives more and more like in a pillory [sic]. It seems like on a big farm one lives on his own land, and he decides. But it's not exactly like he gets to decide » (Mar_SPZ). I think this statement describes the sentiments that a lot of my interlocutors have experienced in one form or another.

Information about the life of a cow from its birth until death is collected and kept by farmers and relevant institutions. A cow has a passport containing data about all veterinary consultations it had. My interlocutors often pointed to advantages related to this solution, helping to stop the spreading of animal diseases and preventing people from engaging in dangerous practices, such as leaving corpses of dead animals in the forest (Mar_RS). Information about cows is also gathered by an independent company specializing in milk assessment (PFHB). Farmers often decide to use their services, firstly because Mlekovita pays more for their milk if they do so, and secondly because sometimes one can get more money when selling a cow if they can provide precise information about it. However, most of my interlocutors stated that the information was not of much use to themselves.

In the socialist and before accession period a typical farm in Sokoly kept animals of different species, some of them for the private use of the family. A lot of my interlocutors had positive memories related to those farms and to some cultural practices involving exchange of various farm and garden products between neighbours. Contemporary farms usually specialise in one type of production. It is difficult for someone who lives of milk cows to additionally keep one or several pigs for their private use. They would need to have separate buildings for different species of animals. Jolanta also pointed to an obligation to register animals of another species, which, according to her, is an unnecessary burden for farmers. She suggests that a serious obstacle to doing so would be the complexity of laws and regulations concerning particular species that one would have to learn. She said that she knew about some cases (sic!) of young people following all those rules, but she thought she was too old to do it herself (Mar_BR). I noticed that the prohibition of keeping animals of different species in one room was very controversial among my interlocutors and that it was often disobeyed.

I frequently asked my interlocutors what they believed were the reasons behind introducing certain regulations and whether they think these decisions were justifiable. The existence of laws which were particularly cumbersome was often explained by the fact that clerks and scientists have theoretical or academic knowledge instead of a practical one. Several interlocutors pointed to the fact that some laws are more strict in Poland than in other EU member states (Germany in particular). Tomek told me that this was because of the nature of Polish people, who have the tendency to bully one another (Mar_TC). Maria and her father in law, Kazimierz, blamed clerks for not informing them early enough that asbestos tile, a cheap material used for roof construction, causes cancer and will have to be removed before a certain date. They were cross, because this information was revealed to them only after they invested money in building such a roof. I suggested that perhaps the clerks did not know about carcinogenic

properties of asbestos tile, but my interlocutors asserted that they must have known about it for at least fifty years. The image of a clerk among people living in Sokoly was ambiguous. On the one hand, clerks were incompetent, because they lacked practical knowledge. On the other hand, they were credited with omniscience in terms of theoretical knowledge. Some of my interlocutors described decisions of the authorities as impossible to understand or explain.

Similar attitudes were expressed in regard to expert knowledge. I asked Tomasz what is bacteria and I was surprised to discover that he wasn't able to answer the question. He openly admitted that he knew what is dirt or mold, but he did not know what is bacteria. In further explanation he confused bacteria with somatic cells, which was a very common mistake amongst my interlocutors (Wrz_RF). I had an impression that in some situations Tomasz and other interlocutors would highlight their lack of knowledge in a provocative manner. Anja Nygren, who carried out fieldwork in Southern Nicaragua, described similar behaviours amongst her interlocutors, who declared that they did not know what development experts were doing in their immediate locality, even if they participated in their meetings. This was a way of negating decisions which experts made in their name.

Although my interlocutors considered animal diseases to be a serious threat to their livelihood and largely attributed to the government the responsibility for defeating them, some of my interlocutors believed that even those regulations concerning prevention of animal diseases were unjustified and made up to make their lives harder. Marta, relating to epidemics of animal diseases, said that her family was glad *they* (the authorities) haven't *invented* anything for cows so far (Mar_MM)⁹. Moreover, I interviewed a woman who owned a pig farm and had to keep disinfecting mats at the entrance of their farm as part of biosecurity program to prevent African swine fever. The woman advised me to walk around the mats, as they were full of chemicals.

A similar ambivalence can be found in the attitudes which my interlocutors expressed towards milk quality standards. I noticed that they were most skeptical about regulations concerning somatic cells, as these were most recently introduced. Wanda, a mother of a young farmer, expressed a representative view, as she told me that somatic cells were not harmful and that regulations concerning it were a madness invented a few years ago (Lip_MS). Similarly to other interlocutors, she believed that since farmers successfully produced milk before somatic cells started to be measured, introducing standards in this matter was unjustified. Some

⁹ The interlocutor relates to the fact that there was no threat of any cow disease epidemic at the time I conducted my fieldwork in Sokoly.

interlocutors pointed to problems with complying with the standards related to the fact that an increased level of bacteria in milk from a cow with mammary gland inflammation may occur even before the inflammation becomes visible. Mammary gland inflammation, although related to increase in cow's productivity, are considered to be a random factor. Thus, according to many of my interlocutors, it is simply unfair to make them lose income due to somatic cells, especially since neutralizing the effect of random factors on agriculture is largely regarded to be the role of the state.

Farmers sometimes mock both milk assessment criteria and new ways of production they need to introduce in order to comply with them. Krystyna, a seventy year old mother of a farmer, commented on contemporary hygienic practices, saying that « I don't wash my own legs the way I wash my cow. Back in the days it would be ridiculous to wash a cow like we do today » (Lip_MKS). Nevertheless, most farmers comply with the regulations.

People versus laboratories

Before the era of laboratories, milk assessment was carried out at the collecting point in front of the farmer. A dairy employee would look at the milk and smell it. If they had any doubts, they could also taste it. The farmer felt that they had, at least to some extent, control over the process, as the employee's power was limited by the phenomena observable for both sides. The farmer could negotiate with the employee and if a disfavorable opinion was counterfactual, it was evident to the farmer and any other witnesses. With modern science, the assessment process was shifted towards the laboratory and the farmer was excluded. Despite the objectivity supposedly guaranteed by scientific methods of examination, tests cannot be repeated in a different laboratory in order to compare results, because samples are being taken on random days.

Farmers' exclusion from the assessment process creates a situation which largely resembles what Timothy Mitchell described as an effect unframing: people « become subject to powers whose source seems increasingly removed from their own world. » The conditions which are an effect of this power seem to build up to a non-negotiable, unchanging framework of their everyday life. « The new modes of power, by their permanence, their apparent origin outside local life, their intangibility, their impersonal nature, seem to take on an aspect of difference, to stand outside actuality, outside events, outside time, outside community, outside personhood » (Mitchell, 1990). Although farmers often disagree with standards and regulations, they engage in surprisingly few, if any, effective forms of resistance. Elizabeth Dunn's forecasts concerning the development of a second economy and the increase in role of social

capital after introducing strict food safety standards did not prove right. Among practices in which farmers engage nowadays are such as selling one's milk to neighbours if Mlekovita refuses to buy it from a particular farmer¹⁰ (Mar_MF) or keeping unregistered animals of other species inside cowsheds. The story about the supposedly bribed lorry driver is also of a certain significance. However, it strikes me that in Sokoly municipality breaking rules is rather an exception than a common practice.

Few stories that were told to me describing unlawful ways of dealing with controls concerned the before accession period. Tomasz revealed to me that previously farmers would *rescue themselves* by adding washing powder to their milk in order to eliminate bacteria. He pointed to a problem related to the fact that the milk is later consumed by people, including small children. However, he seemed to blame the authorities examining milk rather than the farmers, who simply struggled to survive. Tomasz said that today this practice is no longer effective, because laboratories immediately detect chemicals in milk (Wrz_RF). Thus, unlawful practices were eliminated by the improvement of control measures.

If one tries to read farmers' stories about milk assessment frauds between the lines, it turns out that they do not simply question the reliability of a particular laboratory. Farmers refuse to accept certain elements of the enframed reality. By suggesting that test results may depend on the need to pay a celebrity, cooperative's spite towards a particular farmer, or a bribe given by a dishonest neighbour, farmers mock the declared transparency and objectivity of expert knowledge and they tame elements of reality constructed as Other. Tales about frauds contain a refusal to accept criteria of milk assessment implicit in the standards as much as the language used to communicate them. Through telling stories about frauds, farmers prove that, despite the appearance of new forms of power based on new forms of knowledge, certain truths of common sense remain unchanged: the fate of the farmer is not decided by bacteria and somatic cells, standards and laboratories. What really matters is neighbours machination or somebody's will to punish an outspoken farmer. Large institutions still exploit weak people in the same way they always did. Reality still appears as understandable.

¹⁰ In some situations dairies stop buying milk from a farmer for a limited period of time (i.e. one month) to punish them for delivering faulty product. This often happens if a farmer sells milk with antibiotic, even though the farmer was already punished by having to pay for all the product that was wasted by mixing their faulty milk into the lorry tank. Dairy's refusal to buy farmers milk forces them to waste most of it.

Conclusion

In this article I tried to show a wider context for lack of trust towards expert knowledge among farmers in Sokoly. I analyzed local knowledge and ways of explaining the world. I investigated phenomena related to the local category of « progress » used by my interlocutors. They believed that progress was forced on them and that they had no influence on the changes related to it. The way they spoke about radical transformations which occurred in the Polish agriculture in the last twenty years reveals a sensation of gradually losing control over the production process. This is due to introducing standards and regulations which determine ways of producing food. Those regulations are legitimized by expert knowledge. Milk quality standards operate with a definition of «good milk» which is different to this of the farmers. Shifting milk examination from the collecting point to the laboratory excludes the farmer from the assessment process and enforces the feeling that factors affecting farmers' lives are immaterial and impersonal forces situated outside their reality, an effect Timothy Mitchell called «enframing». I think that although farmers explicitly negate only the reliability of particular test results, implicitly they put in question, mock and thus tame the expert knowledge, which has dominated their world.

Questioning scientific knowledge as a form of resistance against the new forms of power cannot be articulated explicitly or publicly. Farmers can talk between each other and keep up one another's convictions that test results are being falsified. They can gather evidence, spread gossips, tell stories about frauds to ethnographers or even try suggesting the existence of abnormalities to supposed journalists. However, any attempt to openly confront the dairy cooperative or to prove one's reasons in a court case would require accepting precisely those forms of knowledge which farmers are resisting. Farmers would have to acknowledge that laboratories can objectively assess milk quality and hence that its value depends on its chemical composition determined by experts using scientific knowledge and transparent methods. And in the context of their local knowledge, this precisely would be their defeat.

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Recorded interviews:		
Symbol	Place and date	Interlocutors
Wrz_AP	Rosзки-Ziemaki, 24.09.2016	Man aged 25, unemployed.
Wrz_BA	Sokoły, 18.09.2016	Woman aged 30, waitress.
Wrz_EW	Sokoły, 21.09.2016	Woman aged 30, waitress.
Wrz_ML	Jamiołki-Godzieby, 21.09.2016	Man aged 25, son of a farmer.
Wrz_NS	Jamiołki-Godzieby, 21.09.2016	Woman aged 50, teacher.
Wrz_SJ	Jamiołki-Godzieby, 21.09.2016	Man aged 50, farmer.

Wrz_PA	Rosзки-Ziemaki, 09.2016	Woman aged 40, working at home.
Wrz_RF	Kowalewsczyzna- Folwark, 22.09.2016	Tomasz, aged 70, retired farmer.
Wrz_SP	Idżki-Wykno, 20.09.2016	Married couple aged 70, retired farmers.
Wrz_ZI	Krzyżewo, 18.09.2016	A group of young male technical school students.
Lis_BS	Jałonowo-Kąty, 7.11.2016	Woman aged 45, shop assistant, and her husband, aged 50, businessman.
Lis_GK	Sokoły 8.11.2016	Married couple, aged 70, retired farmers, and their grandson, aged 3.
Lis_NM	Sokoły 9.11.2016	Woman aged 50, teacher.
Lis_RBR	Truskolasy-Lachy, 11.11.2016	Married couple, aged 65, former farm owners, and their daughter, aged 25, receptionist.
Lis_RJ	Truskolasy-Lachy, 11.11.16	Woman aged 40, farmer, and her relative, woman aged 85, retired farmer.
Lis_WR	Kowalewsczyzna, 05.11.2016	Zofia, woman aged 60, and Antonina, woman aged 60, pensioners.
Lis_ZB	Jabłonowo-Wypychy, 7.11.2016	Woman aged 80, retired farmer.
Lis_ZZ	Jabłonowo-Kąty, 7.11.2016	Man aged 25, unemployed; Man aged 25, driver; Boy aged 15, student
Mar_BBR	Chomice, 19.03.2017	Jolanta, aged 60, farmer
Mar_BS2	Jabłonowo-Kąty, 19.03.2017	Another interview with interlocutors (Lis_BS). Woman aged 45, shop assistant, and her husband, aged 50, businessman.
Mar_EK	Idżki Średnie Kolonia, 22.03.17	Man aged 65, farmer.
Mar_MF	Rosзки-Ziemaki, 19.02.2017	Jacek, aged 40, former farmer; Woman, aged 40, housewife; Her son, aged 25, unemployed
Mar_MM	Noski Śnietne, 22.03.2017	Marta, aged 20, worker in Mlekovita's factory
Mar_PP	Mojsiki, 20.03.17	Teresa, aged 50, farmer; and her son aged 25, farmer Interview co-directed with Magda Kalinowska
Mar_RS	Jabłonowo-Wypychy, 18.03.17	Antoni, man aged 65, retired farmer; Katarzyna, man aged 65, retired farmer; Woman aged 55, their relative from Warsaw
Mar_SPZ	Jabłonowo-Kąty, 20.03.17	Maria, woman aged 50, farmer; Kazimierz, aged 80, Maria's father in law; Woman aged 80, Maria's mother in law
Mar_TC	Chomice, 19.03.17	Tomek, man aged 28, farmer
Lip_AP	Rosзки-Ziemaki, 4.07.17	Magda, woman aged 25; farmer Adam, man aged 30; Magda's brother in law, cow feed expert; Magda's daughter, aged 3
Lip_BH	Płonka-Strumianka, 04.07.17	Married couple aged 50, farmers; and their two sons aged 18 and 25.

Lip_MKS	Truskolasy-Niwisko, 03.07.17	Krystyna, aged 70, a retired farmer; her son, aged 40, farmer; their neighbour, man aged 50, farmer
Lip_MS	Płonka-Strumianka, 07.2017	Man aged 25, farmer; Wanda, aged 50, farmer's mother; man aged 50, farmer's father
Lip_PJ	Płonka Strumianka, 4.07.17	Jozef, man aged 60, farmer.
Lip_RŁ	Płonka Kozły, 05.07.17	Farmers' family of six: the farmer, his Barents, his son, his daughter and his sister.
Lip_WP	Gąsówka-Skwarki Kolonja, 07.07.17	Małgorzata, aged 50, farmer