

*Negotiating the Duplexity of Ethnographic Relations:
Taking a Symmetrical Approach to Interlocutors “in” and “beyond” Science*

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Abstract

In this paper, I raise the question of how can we, as anthropologists, take a balanced or symmetrical approach in our research in situations where our interlocutors have different relations with scientific knowledge. I describe how in my research on raw milk consumption in Croatia, some of my interlocutors were people working in the scientific production of knowledge, and others were consuming raw milk where they did not account for this knowledge. I explain how it was a challenge to consider both types of approach in an equal way because of my own relation to the scientific production of knowledge. I argue this is because of the duplex relation we have with our interlocutors who work in science: a collegial relation and an ethnographic one. As I show, this is a point that has been made in some of the literature on vaccination (e.g. Drązkiewicz Grodzička, 2021), as well as one that has been discussed elsewhere (e.g. Nadasdy, 2007). I then consider these issues through Hufford’s (2020, 2008) idea of methodological symmetry, where I argue that it is in the “field” where relations are set up asymmetrically. Therefore, I argue that we need to think very carefully about how these relations unfold in practice during our fieldwork, and not just later on when we are analysing them.

Keywords: Raw milk, vaccination, microbial politics, post-socialism

Introduction

In Croatia, it is legal to sell and consume raw, unpasteurised milk. Farmers are allowed to sell it in vending machines they own or directly to consumers who come to their farms. However, while it is legal to sell raw unpasteurised milk to consumers, they are encouraged to treat the milk with some form of heat treatment before they consume it. During my research into the production and consumption of milk in Croatia, many interlocutors said they did this by heating the milk in a saucepan and letting it boil briefly. But, whilst many said they boiled the milk, I also noted that about half of the people I spoke to "ignored" advice about the need to heat it. These people told me that they actively sought raw milk because they wanted to consume it in its unpasteurised form. They explained that they and their family had been drinking milk like this for years, and no one had ever been sick from it. For this reason, they

felt it was unnecessary to boil milk, and that if you did, then all the goodness in the milk was lost. They argued that if you were planning to boil raw milk, you might as well spare yourself the trouble of sourcing it from farmers or vending machines, and instead buy milk from the supermarket because it was more or less the same.

Nevertheless, their approach was not the only approach to the consumption of raw milk that I observed. Since my research's main focus was to compare milk production from an interspecies perspective, I explored both human and animal milk production and consumption. To do this, I spoke with many figures involved in the "milk production" process, which, besides from those who were producing milk themselves, included my speaking with veterinarians, paediatricians, farmers, microbiologists working at dairy processing plants, and others. Due to this multi-sited approach, I heard a number of perspectives on milk consumption and production, where one notable difference turned precisely on peoples approaches towards the consumption of raw milk. The approach I have just described above, about consuming raw milk without heating it, stood in stark contrast to the one taken by microbiologists working at dairy processing plants, as well as researchers working at university research units. People working in these fields said they felt that people who consumed raw milk without boiling it were taking unnecessary risks with their health. They cited research that had proven the presence of *listeria monocytogenes* and other pathogen microbes in milk vending machines (c.f. Mikulec et al., 2019) as evidence of this. They also queried the significance of milk losing its goodness if it had been pasteurised, where they explained that while the heating process did destroy some vitamins, it was possible to find these vitamins in abundance in other foodstuffs. As a result, they considered the risk of drinking raw milk to be much greater than its benefits, especially if a person was eating a balanced diet. Subsequently, during my research, I saw a wide range of different approaches to the consumption of raw milk, where at points, these approaches appeared to stand in polar opposition to one another.

It is because of this that the main question I ask in this paper is how do we, as interested observers, negotiate these different approaches in our analytical work? On the one hand, we work with interlocutors involved in the production (academics) and implementation (microbiologists) of scientific knowledge regarding raw milk consumption. On the other, we work with interlocutors who are engaging in practices that ignore or challenge this knowledge. While here I am talking about research into milk

production, I think these issues are relevant to all research where scholars are working with interlocutors who are working in the field of science and also interlocutors who are working beyond it. Although the topics of our research interests might be different, a similar issue is at stake, which is that of how might we approach our interlocutor's narratives in a balanced way, especially when their positions sometimes conflict with one another. As I discuss in this paper taking a balanced or symmetrical approach presents a formidable challenge, since we are ourselves involved in scientific knowledge production. Due to this, we have a duplex relation with those interlocutors who are involved in similar work as we are: we are in a collegial relation and an ethnographic one with them. As I argue, one consequence of this duplexity is that there is a risk that we unwittingly position ourselves on the "side" of scientific knowledge and organise these different approaches into a hierarchical relation, where one is based on "expert" knowledge and the other not.

To draw these issues out, in this paper, I start by offering an outline of how scholars have approached food hygiene and food safety in the post-socialist social context. I do this because this body of literature initially appears to sit the closest to my interests concerning raw milk consumption. Yet, as I describe, the main focus of interest in this literature is on how post-socialist practices to food hygiene and food safety relate to the modern project. As with other areas of scholarly interest concerning central or eastern Europe, scholars are working to challenge 'neo-orientalising' discourses about the region. Thus, I turn to another area of scholarly writing for insight, the literature on vaccination, where I see many parallels with the issues I discuss here. In both the writing on vaccination and the writing on raw milk consumption, scholars have observed that interlocutors take a range of different approaches to scientific knowledge, where some accept it and others challenge it. Also, in both areas' scholars observing these relations have to negotiate their positions and relations with scientific knowledge, and importantly for my interests, this is something that scholars working in the area of vaccination studies are already discussing. Having drawn this out, then in the next part of this paper, I trace out these discussions where I show how scholars take an interest in understanding why people refuse or are hesitant to vaccinate. I describe how this interest in understanding vaccine refusal or hesitation is partly motivated by a desire to see how people's minds might be changed. As I discuss, this is problematic because it results in a "them" and "us" attitude. Other scholars have made this point and call for the taking of a more measured approach towards those who reject or are hesitant to vaccinate. An account by Drażkiewicz Grodzicka (2021) is most pertinent for my discussion here since she has raised

very similar questions in her writing on the relationship between conspiracy theories surrounding the vaccine for human papillomavirus (HPV) in Ireland. She also questions what we should do with those who stand beyond "scientific knowledge" and queries how our position of interested observers, who are also a part of the scientific project, affects our analytical gaze. She suggests that we need to treat all positions seriously, which is a point that I consider in detail in the last part of this article. I do this by considering Hufford's (2020, 2008) concept of methodological symmetry, where he proposes that we must approach all our interlocutors' knowledge in the same way, irrespective of where it is produced. Nevertheless, through a consideration of my own fieldwork experiences in this last part, I argue that even with the best of intentions, our approach may not be symmetrical because of our duplex connections to interlocutors working in scientific knowledge production.

Neo-orientalising tropes: food hygiene and food safety in post-socialist states

Scholars (Aistara, 2014, 2015; Dunn, 2003; Jung, 2014; Mincyte 2014) have explored the issues of food hygiene and food safety in the post-socialist and socialist social context (Jung, Klein & Caldwell 2014), where they have investigated how people have negotiated food hygiene and safety regulations after the end of the Soviet Union, the Socialist Republic of Yugoslavia, as well as in China. One area of interest for these scholars is how states and, in turn, their citizens have aligned themselves with regulations introduced by what was then a new supra-regulatory body: the European Union. During the accession process, new member states, which had historically been a part of the Soviet bloc or Yugoslavia, had to realign their internal state laws on food hygiene and food safety to align with European Union regulations. Some scholars have followed these transition processes and noted that there are active grey markets where people sell and buy food products that state monitoring mechanisms have not regulated. For example, Jung (2014) has explored raw milk sales in Bulgaria, Mincyte (2014) has explored ethical orders in raw milk consumption in Lithuania, Aistara (2014) the effect of European Union regulations on seed exchanges in Latvia, and Dunn (2003) has explored how food safety regulations have influenced pig production in Poland. In my research, I noted that grey food markets were also active in Croatia. Whilst many of the people I spoke with purchased raw milk directly on the farms or from milk vending machines, a smaller number of interlocutors told me that they bought milk on farms not registered at the Ministry of Agriculture. These farms were unknown to the Ministry, where the farmers worked firmly outside the regulatory system.

One point that this literature makes is that these post-socialist approaches to food hygiene are sometimes presented as a result of these regions being less developed or "more backwards" than in Western Europe. For instance, Aistara (2015) has argued that these forms of food production that do not adhere to hygiene laws are "interpreted by some as a sign of backwardness and an impediment to becoming modern" and is a part of a broader "neo-orientalist positioning of eastern Europe as the backwards Other of the modern western Europe" (Aistara, 2015, p. 11). Thus, in this particular geopolitical context, the apparent rejection of "scientific knowledge" is analytically treated in a specific way, where it is considered to be the product of a region that has not yet fully embraced the modern project. According to this trope, the alleged "backwardness" of eastern and central Europeans means that they have not rejected science as such; instead, some still remain in a pre-scientific phase. Such an approach feeds into, and is part of, a broader neo-orientalising trope (e.g. Buchowski, 2006) that has a tendency to treat these parts of Europe as standing beyond the more socially developed western Europe. Subsequently, in this particular social context, the cause of people engaging in social practices that challenge scientific knowledge is explained as being a result of their geopolitical location: there is a question mark about the entire region's relation to science. Nonetheless, concerning the consumption of raw milk in Croatia, and in line with those scholars who have challenged such narratives, I have argued (Czerny 2018) that it is impossible to determine those who are consuming untreated raw milk in Croatia to be doing so because they have not yet evolved as moderns. In an account elsewhere (Czerny 2018), I noted that people in the Croatian social context were more than aware of the potential harm to human health that pathogenic microbes could cause. Thus, they could not be considered pre-modern in any sense.

However, this is not the only way that scholars consider microbial relations in raw milk production in the social sciences and humanities. Scholars working in other geopolitical areas, such as Italy or the U.S.A, have also explored how people work with and consume raw milk products. For instance, Grasseni (2011, 2014) has considered the concept of locality in her work on cheese and milk production, and Mattozi and Piccioni (2012) have explored milk vending machines using Actor-Network-Theory. Paxson (2008, 2013) has written extensively about artisan cheesemakers in Vermont and how they work with raw milk. She describes these cheesemakers as post-Pasteurian because they "emphasise the potential for cooperation among agencies of nature and culture, microbes and humans" (Paxson, 2013, p. 161). Thus,

post-Pasteurians recognise risk and try to protect against microbial infections, where they employ "good" microbes to aid them (Paxson, 2013, p. 162). Yet, the raw milk consumers I observed also do not fit Paxson's description of post-Pasteurians, since they have not entered a partnership with microbes in the same way that Paxson (2008, 2013) has described. Rather than working with good microbes in the same way as post-Pasteurians, the people I observed seemed not to consider microbes at all in their everyday practices, even though they were aware of their potential presence when I asked them about it. Thus, they did not fit the label of post-Pasteurians. For this reason, I have described these consumers as taking an a-Pasteurian approach instead of a pre-Pasteurian or post-Pasteurian one (Czerny 2018). It was precisely this a-Pasteurian approach that bothered my interlocutors who worked in microbiology or were researchers at university research units. When they talked about their interactions with "a-Pasteurians", they would give instances that fit very closely with my observations. They concluded that those people who took such an approach were unwittingly taking risks and were perhaps unaware of the dangers of pathogen microbes, where one microbiologist explained that people did become more cautious when there had been a widely reported outbreak of infectious disease. Thus, in some way, the narratives offered by microbiologists and researchers at university research units did appear to share parallels with those neo-orientalising tropes on south-east and central Europe in that they questioned people's relation to science. Nevertheless, they did not equate their suspicions about these actors' relations to science as being caused by a wider issue concerning the region's relation to modernity. But these critiques were not one sided. Those interlocutors who were consuming raw unpasteurised milk told me that the figures working in food hygiene and university research units were part of the Croatian state apparatus that constantly burdened citizens with unnecessary regulations. They argued that the motivation for implementing such regulations was not to keep citizens safe but to extract as much money as possible from them either through taxes or fines.

As a result of hearing such different narratives, which at points directly opposed one another, I often found myself feeling a sense of discomfiting "in-betweenness" with my interlocutors. I felt I was being duplicitous in that whilst I very carefully positioned myself as neither agreeing nor disagreeing with either 'side' in my interviews, I always felt there was a danger this silence might be interpreted as a tacit form of agreement with their position. On those occasions when I tried to rectify this by offering an alternative perspective, our conversations would turn into a debate. My intention of trying to mediate between these

positions elicited an added sense of discomfort where I felt that I was playing one side off against the other.

Vaccine hesitation and vaccine refusal: Wanting to understand the causes

It is because of this that the literature on vaccination becomes valuable since it is also an area where people have many different relations with scientific knowledge, which have been considered in scholarly work. As I mentioned in the introduction, I suggest it is possible to glean insights into the issues surrounding how people approach raw milk consumption from the literature on vaccine refusal and vaccine refusal. In this body of literature, there is a large corpus of work from many disciplinary perspectives that explores *why* people will not vaccinate. Strikingly, when compared to the writing on food safety and food hygiene, scholars look at these reasons from a much wider number of perspectives. One can account for these broader perspectives and greater interest because the issues surrounding vaccination are not precisely the same as concerns about the consumption of raw milk. The main difference is that according to the concept of herd immunity, which stresses the importance of large percentages of people being vaccinated to keep certain diseases under control, there is a belief that the decisions people make about vaccination have the potential to affect more people than raw milk consumption. One can conjecture that it is because of this perceived greater risk to human health that more scholars are engaging in an exploration of the issues surrounding vaccination.

Some authors (Kata, 2010, 2012; Smith & Graham, 2017) have analysed the internet's role in promoting vaccine hesitation or vaccine refusal. Kata (2010) has argued that the internet is a "postmodern pandora's box", where the social discourses that underpin anti-vaccination debates are an example of postmodern tensions in society (Kata, 2010, p. 1715). She has also investigated the "tactics used by the online anti-vaccination community", which she says involves practices such as skewing the science, censorship and attacking the opposition (Kata, 2012, p. 3781). Smith & Graham (2017) explore Facebook anti-vaccination communities, arguing that these communities are not close-knit communities of support. Other scholars have explored vaccine hesitation and vaccine refusal from a historical perspective. Dubé, Vivion & MacDonald (2015) have explored historical opposition to vaccination since the 1790s. They propose that the social context is changing, wherein the present-day social context "empowerment" and "individual choice" are predominant themes

(Dubé et al., 2015, p. 109). Worfe & Sharp (2002) also consider anti-vaccination from a historical perspective, where they point out that whilst many may consider anti-vaccination attitudes to be something new, they have been around since the introduction of the smallpox vaccination in the 19th century (Wolfe & Sharp, 2002, p. 430). A further area in the literature and one whose importance many scholars have stressed is the social context in which anti-vaccine or vaccine refusal discourses and narratives develop. In their research on the MMR vaccine, Poltorak, Leach, Fairhead, & Cassell (2005) say that they want to locate how it relates to the "wider social world". They explore the interaction between health professionals and parents, and investigate how people talk about MMR to see how "such talk is shaped by, and shapes, social context" (Poltorak et al., 2005, p. 711). Brunson (2013) explores the role of social networks in vaccine refusal, and Attwell, Smith & Ward (2018) employ Social Identity Theory to show how vaccine refusing parents "bolster their sense of identity and self-belief by a discourse that casts vaccinators as an Unhealthy Other (Attwell et al., 2018, p. 1621). Another point that some scholars (Dubé et al., 2015; Poltark et al., 2005; Reich, 2016) make concerning the social context surrounding vaccine hesitancy and refusal is that the underlying ethos of vaccine programmes, with the idea of constructing herd immunity, stands in contrast with the "culture of individualism" that is a central ethos of modern-day into healthcare (Reich, 2016, p. 68). As Reich (2016) writes, "the precepts of informed consent, a bedrock concept in American medicine, reinforce this individualism" (Reich, 2016, p. 69). Thus, they propose that the underlying tenets of vaccination programmes, such as the concept of herd immunity, goes against these tropes of individualism. Due to the wide variety of arguments that scholars present as to why people are hesitant to vaccinate or refuse to do so, some scholars (Navin, Wasserman, Ahmad, & Bies, 2019; Smith, 2017) have argued that vaccine refusal sits on a spectrum and should not be considered as fixed.

However, whilst this body of literature offers a wide range of explanations and reasons why people refuse to vaccinate or are hesitant to do so, there is a visible uniformity in one area. This concerns the motivation that scholars say they have themselves for engaging in this research, which is that they want to *understand* why people refuse to vaccinate or are hesitant to vaccinate. For instance, in their abstract to the brief review article entitled "Exploring the reasons behind parental refusal of vaccine", McKee & Bohannon (2016) write "Vaccines play a vital role in preventing diseases in children, so it is crucial that pharmacists and other healthcare professionals *understand* the reasons that parents are hesitant or refuse to vaccinate their children" (McKee & Bohannon, 2016, p. 104, emphasis added). Smith & Graham (2017) write "*understanding* pockets of resistance to vaccination as a public health

exercise provides important insights into how these attitudes may be effectively countered" (Smith & Graham, 2017, p. 1, emphasis added). Hornsey, Harris & Fielding (2018) propose that "*Understanding* these underlying motivations opens up new possibilities in terms of promoting more vaccination uptake, interventions that work in alignment with (rather than against) the effects of motivated reasoning on people's ability to embrace counter attitudinal information. (Hornsey et al., 2018, p. 314, emphasis added). Smith (2017) writes something similar where she states, "*Understanding* the arguments and concerns that individuals have about vaccines, and from where they originate, can allow for better communication regarding vaccines on the part of scientists" (Smith, 2017, p. 4, emphasis added). Kata (2012) also states "Recognising anti-vaccine tactics and tropes is imperative, for an awareness of the disingenuous arguments used to cajole and convert audiences gives individuals the tools to think critically about the information they encounter online" (Kata, 2012, p. 3785). In a further example, Dubé et al., (2015) describe how their historical analysis of vaccination refusal is to try to further "*understand* modern-day anti-vaccination movements" (Dubé et al., 2015, p. 100, emphasis added).

As is apparent in these excerpts, scholars seek to understand why people refuse or are hesitant to vaccinate. Nonetheless, this scholarly interest in understanding why people either refuse or are hesitant to vaccinate is not solely for the sake of understanding. The motivation behind understanding vaccination hesitation and vaccine refusal is to see how to make people change their minds. For example, in their writing, Navin et al. (2019) explicitly make this point, where they talk of the effectiveness of "different interventions" for "different refusal groups" (Navin et al., 2019, p. 366). Such an approach shows how scholars position themselves to scientific knowledge about vaccination, where clearly they are placing themselves in a very close relation to it. Their interest in exploring how it might be possible to change others' minds demonstrates that they stand in accord with scientific knowledge that has been produced about the benefits of vaccination. I argue that a consequence of this is that by doing so, they have placed these different approaches to vaccination into a hierarchical relation, in terms of whose knowledge is more robust and whose is not. It is not my interest here to enter into a discussion about whose knowledge is more robust, but rather to concentrate on what the effects are when this is done. I suggest that one effect of this hierarchising approach is that different relations are formed with research subjects, where they are not being approached on equal terms. As a result, these scholars are not taking a symmetrical approach, but instead have positioned themselves "in" science alongside those who produce scientific knowledge about vaccination.

Taking a more measured approach

Nevertheless, some scholars have taken a critical stance towards such an approach. These scholars (Blume, 2006; Kata, 2010, 2012; Poltorak et al., 2015; Sobo, 2015, 2016; Reich, 2016) have pointed out the need for this research to take a more dialogic approach with those who are vaccine-hesitant or refuse to vaccinate. Kata (2010), for instance, has called for a "less accusatory dialogue on the topic" (Kata, 2010, p. 1715). Blume (2006) has also argued that to see parents who are hesitant or refuse to vaccinate their children as misinformed or irrational is sociologically inadequate. They say that scholars must consider both sides as being mutually engaged in a process of contestation (Blume, 2006, p. 640). Thus, within this literature, there is a call for a more considered approach that does not treat those persons who refuse to vaccinate or are hesitant to do so as misguided figures at best and in other ways at worst.

These calls assuage a concern I have about this scholarly practice of challenging the positions that people who are vaccine-hesitant or who refuse to vaccinate take. Whilst we may not share the same positions as our informants in our practices, this does not exempt us from following the same ethical considerations as any other group of people we are researching. Teo (2010) has discussed the notion of "epistemological violence" in his consideration about the role of interpretation in scientific knowledge, where he argues that interpretations are "a form of action." He proposes that "if concrete interpretations have negative consequences for groups – even though alternative, equally plausible interpretations of the data are available – then a form of violence is committed" (Teo, 2010, p. 268). Even if we argue that the approach taken in the writing on vaccination is not a form of epistemological violence, I think it still can be said that it is motivated by a form of epistemological conversion. As I mentioned in the previous section, the underlying motivation to understand vaccine refusal and hesitation is to see how it might be possible to change people's minds. However, I ask, is this our role as anthropologists? Several anthropological ethical codes or guidelines clearly state that one should not harm one's research participants. In my mind, research that concertedly seeks to understand the practices of research informants with the ultimate aim of seeing how it might be possible to transform their thinking seems questionable in this sense. It raises ethical questions about whose welfare we put first. In many codes of ethics, anthropological associations say the welfare of research subjects should take first place in all potential conflicts of interest. For instance, the

Association of Social Anthropologists of the UK and the Commonwealth [ASA] states that "most anthropologists would maintain that their paramount obligation is to their research participants and that when there is conflict, the interests and rights of those studied should come first". The ASA ethical guidelines also suggest that anthropologists should try to avoid "undue intrusion", which often takes the form of anthropologists intruding into participants private or personal domains, where participants feel this encroachment has slighted them. The American Anthropological Association takes a similar stance, where it states that some of the most severe harms are those that present a "harm to dignity". Here, one might counter-argue that the desire to change people's minds about their vaccine refusal or vaccine hesitation is in their best interests since knowledge produced in mainstream scientific research processes demonstrates vaccines' beneficial qualities. The same could be argued about the consumption of raw milk.

However, I propose that doing so is problematic on a number of counts. First of all, it aligns our analytical position, as anthropologists, with mainstream scientific research processes. As I discussed at the end of the previous section, the result of doing this is that we automatically create a distance between ourselves and our research subjects: right from the outset, we "side" with scientific knowledge. Drążkiewicz Grodzicka's (2021) writing on conspiracy theories in vaccine refusal is critical to consider at this point because she explicitly discusses scholarly positionality concerning these theories. In her writing on the place of conspiracy theories in vaccine refusal, Drążkiewicz Grodzicka (2021) starts her account with the question of what to do about "them", those people who promote conspiracy theories about vaccines. She argues that people who promote these theories are treated as "not like us" or "others". She proposes that medical conspiracy theories are particularly sensitive because they have a specificity to them precisely because of the proximity of anthropological relations to scientific knowledge. As she describes, it is science that proves that vaccines prevent disease, and since anthropologists also work in science, there is "less room for anthropological relativising of conspiratorial thought" (Drążkiewicz Grodzicka, 2021, p. 6). If anthropologists take the knowledge of people who refuse to vaccinate or are hesitant to do so seriously, then as anthropologists, they are in danger of being accused of "siding with the enemy, giving space to false information etc." (Drążkiewicz Grodzicka, 2021, p. 5). She points out that sometimes in the initial part of their texts, scholars give statements about the positive role of vaccination, which she sees as an attempt to counterbalance what they have written in their texts. Here, one can add the additional observation that in their introductions about vaccine hesitancy and vaccine refusal, scholars

also add a statement about how they have vaccinated their children (e.g. Kitta 2012, Riech 2016).

In light of all of the above, the question arises as to how we might take a more measured approach? How can we take a more balanced approach in our analytical work where we do not automatically privilege those approaches by interlocutors who work in scientific knowledge production? This is not an issue that is solely related to scholarly work on vaccination and food hygiene since it is possible to see that similar questions have been asked in other areas. For instance, in a discussion about human-animal relations, Nadasdy (2007) has questioned how we might report encounters between humans and animals that fit the definition of "extraordinary experiences" in our work. How can we describe those encounters that challenge standard ethological knowledge about human-animal exchanges, where we are not embarrassed or "the objects of suspicion among our colleagues (the "Castañeda effect") (Nadasdy, 2007, p. 36)? Hufford (2020, 2008, 1995) has also extensively written about the question of how to analytically treat knowledge that stands outside "accepted" scientific knowledge. He writes about a dream he had that someone was strangling him and explains that later when exploring this, he discovered the 'folk' story of the "Old Hag", which appeared to offer a description of exactly what he had experienced in his sleep. Nevertheless, he noted that this explanation was not mentioned in Western accounts where such experiences were described in terms of sleep paralysis. As with the writing on raw milk consumption and vaccination, people took different positions to knowledge about this "sleep disturbance". As Hufford (2020) argues, Western scientific descriptions of sleep paralysis are treated as being the correct knowledge and accounts of the Old Hag as folk stories. In turn, one form of knowledge is taken seriously and the other not. To counter such hierarchical approaches that he observed, Hufford (2020, 2008, 1995) introduced the concept of methodological symmetry. According to him, methodological symmetry "requires that no explanation of knowledge claims be either privileged or discounted without reason, and similar reasons must be considered for all explanations (both scholarly and popular)" (Hufford, 2020, p.75). Thus, he argues that in our research, we should analytically treat all forms of knowledge in the same way, where we do not give a priori precedence to one form of explanation over another. One effect of such an approach is that it problematises our close relation to science, where we cannot appeal to science without adequately qualifying why it is a superior explanation. In this sense, we cannot appeal to science for science's sake. Hufford (2008) argues that an appeal to one's "tribe" without proper argument, whether this tribe is

"anthropologists, scientists or spiritists", is not methodological symmetry but an appeal to authority (Hufford, 2008, p. 297).

In contrast, he says that when taking the approach of methodological symmetry, "the beliefs of one's tribe do not trump the beliefs of others without proper argument" (Hufford, 2008, p. 297). This automatically suspends any implicit hierarchy present in one's analytical perspective according to where the knowledge was produced. In terms of my discussion in this paper, one can immediately see the usefulness of methodological symmetry since it halts the possibility of setting out to analyse *why* people do not vaccinate or drink raw milk in order to be then able to persuade them otherwise. This is because to do so is to privilege one form of knowledge over another, and to do this without proper argument or explanation is to take an asymmetrical approach rather than a symmetrical one. In contrast, methodological symmetry requires us to think carefully about the positions we are taking to our material before we take them.

In writing on vaccine hesitation and vaccine refusal, one can see that some scholars are taking a symmetrical approach, where they include multiple perspectives in their analyses and treat them all seriously. Drażkiewicz Grodzicka's (2021) account of conflict over the HPV vaccine in Ireland has explored both the medical community's perspectives and the perspectives of people experiencing vaccine regret or hesitancy. Thus, she takes what she has termed a relational approach, whereby both "sides" are considered and taken into account. Another author, Reich (2016), has included multiple perspectives in her research on vaccination in Colorado, where she has explored this from parents and paediatricians' perspectives. Notably, in her account, it is possible to see multiple perspectives within the same "categories" of person, such as paediatricians who are working with a slow vaccine programme or not. Kitta (2012) has also done this, whereby she explicitly states that she is taking a methodological symmetry approach. She writes that this is "a methodology based on the theoretical premise that the same questions must be applied to the medical community as are applied to the lay community (Kitta, 2012, p.5). She explains that this approach often shows "complex perspectives" in both communities (Kitta, 2012, p.5). What is novel about these approaches is that they offer a much more nuanced perspective on the issue, and by taking several different perspectives into account, they do not prefer one over the other in their analyses. Moreover, they do not treat people who refuse to vaccinate or who are hesitant to do so as standing in a position that is "other" to their own.

A truly symmetrical approach?

However, there is one further aspect I want to consider concerning the methodological symmetrical approach. As I discussed at the beginning of this paper, in my research on raw milk consumption, even though I was trying to take a balanced approach, there was a duplexity to my relations with interlocutors who worked in science that disturbed this symmetry. As I mentioned, most of the interlocutors I spoke to in my research about raw milk consumption, who considered it necessary to treat raw milk with heat before consuming it, worked either in a university setting or were basing their work on knowledge produced in a university setting. One consequence of this was that these ethnographic relations had a “collegial” note to them that my relations with interlocutors who did not work in university settings did not. In his writing about the anthropology of experts, Boyer (2008) proposes that when anthropologists are researching experts, they are often confronted with subjects that are "socially 'like us' in most respects other than their specific expert practices and knowledges" (Boyer, 2008, p. 42). Boyer (2008) suggests that one possible effect of this is a certain "politeness", where some topics are not broached. As he writes, there is "a kind of supra-collegial entente cordiale" that involves a "politics of respectful distance, and reciprocal, professional knowledge sharing" (Boyer, 2008, p. 43). These descriptions very closely fit the experience I had of the ethnographic relations that I had with interlocutors who were experts in microbial contamination in raw milk production.

When contemplating these ethnographic relations with the benefit of hindsight, it was clear that my relations with those who condemned the consumption of raw milk and who were also experts in microbiology took quite a different form to those interlocutors who were consuming raw unpasteurised milk. With interlocutors who worked in a university setting, we were already colleagues and were now entering into an ethnographic relation. As with all interlocutors in my research, when I contacted them to ask if I could come to visit them and speak to them about their work, I explained who I was (anthropologist), where I was working (University of Rijeka) and what my interest was (to explore milk production and consumption in different mammal species). On a few occasions, I got into contact with someone through the mediation of another colleague. When we met, I always went to their workplace, and we met either in their office or a meeting room. We may have walked around the department during these conversations and met other colleagues working there, but not once did we leave the university premises. Our conversation's tone was much like any collegial discussion about shared research interests, where we often used the term "colleague" to refer to each other. We also spoke about the literature on raw milk consumption, arranged

to send each other documents that we thought might be useful, and even discussed workshops that we knew about. These conversations often ended with discussions about possible future collaborations together. Thus, these conversations took a very collegial form and were not particularly different from conversations with other colleagues about their work, who were not interlocutors in my research. Indeed, I would say that the only observable difference was that I recorded our conversations.

On the other hand, my interviews and conversations with people who did drink raw milk took a notably different form. The location where they were carried out was different, where these interviews and conversations took place either in a public place, such as a café bar or in interlocuter's homes. Since I wanted to listen to their attitudes and thoughts about drinking raw unpasteurised milk, at the time, the location of our conversations seemed unremarkable. If we were meeting at a interlocuter's house, I would sometimes meet their family members, such as spouses/partners or children. In this sense, I got a greater insight into interlocutors' wider lifeworlds than I did with those who I met in their work settings. Our conversations also oriented more on their life choices rather than the results of their work. Additionally, if we were at their homes, whilst we sometimes sat together, sometimes they were doing another task as we were talking, such as preparing a meal. Our conversation topic would meander to other areas, such as the food they were preparing and away from raw milk consumption. The way I got into contact with people who were drinking raw unpasteurised milk was also different. A third person often connected us because they knew what my research was. After getting their contact, sometimes I contacted them directly, and sometimes these third persons made the initial contact for me. However, when I did contact them directly, I always mentioned the person who had given me their details, so they know "who" I was. Whilst I gave the same information about my research to all interlocutors, with those interlocutors who consumed raw milk, our conversations often started with an exchange about the person we mutually knew. In contrast, I often made initial contact with interlocutors working in university research settings via email, where I used my faculty email address. Due to my email signature, they could see my affiliation and the faculty department where I was working. If a third person had connected us, we rarely discussed how we both knew this person.

As a result of the above, it is clear that approaching "both sides" symmetrically presents a challenge on several counts. The first is that the social spheres where this knowledge is gathered are different. When I spoke to microbiologists about their approaches to raw milk consumption, I was asking them for their opinion in their professional capacity

and in their professional setting. As such, the exchanges in these conversations were an exchange of knowledge, supported with additional evidence such as academic articles or suggestions to visit other people working in the same field. When we addressed one another, we used the formal term "colleague", and by locating each other as colleagues, at the same time, we situated ourselves from the outset in a "scientific relation". The result of this was that it instantly defined the direction these conversations took. Again, closely fitting Boyer's (2008) description, these exchanges were short and formal, mainly consisted of an exchange of formal scientific knowledge, and our topics of conversation never went beyond workplace matters. On the other hand, my conversations with those who were consuming raw unpasteurised milk were held outside of their workplaces. Just as I did not once visit a microbiologist in their home setting or private space, I did not once visit a person who did consume raw milk in their workspace. This meant that our relations also took on a particular form. Nevertheless, it is essential to point out here that this difference was not just the result of these interviews taking place in different spaces. Since I was not coming to consult them about their professional opinion and in their professional capacity, we did not speak about their work very much. When we did, it was descriptive in the sense of their working hours, how many colleagues they had, and what their general tasks were. When speaking with microbiologists, we did not speak about their work in this way; instead, we spoke about their work results.

So how do the above observations speak to Hufford's (2020, 2008) idea of methodological symmetry and the suggestions made by some scholars working on vaccine refusal and vaccine hesitation that a more sociologically balanced approach is needed? I suggest that these examples demonstrate that symmetry is not only a case of considering different perspectives and taking the approaches of others seriously. When thinking about the ethnographic approach I took in my research in more detail, as I have done just now, it is quite clear that it was flawed. While it seemed that I was taking a balanced approach, in the sense that I did consider both "sides" about the consumption of raw milk, I was accessing very particular forms of information about my interlocutors lifeworlds. On one side, I spoke to people who consumed raw milk about their personal life choices and, through our conversations, explored how they reached them. On the other, I spoke to people in their professional capacity, exploring their professional perspectives on raw milk consumption. As such, they offered me their expert knowledge, which very often had already been packaged and polished in the form of an academic text. Thus we can conclude that these forms of knowledge are not symmetrical, and due to my choice of interlocutors in the research phase,

my results were, by default going to be asymmetrical. One could also argue that by accessing expert knowledge in this way, whereby it is presented in tandem with knowledge that is not expert knowledge, the aim of offering a balanced account is not achieved. Indeed, when one thinks about it in this way, one effect of this intended "balanced approach" may be quite the opposite. A possible product of a narrative that places raw milk consumers' knowledge practices in a comparative position with those working in microbiology is that raw milk consumers' knowledge practices might appear even more irrational. I was engaging with these interlocutors' knowledge products in my conversations with them, where unlike an approach such as the ones taken by Latour and Woolgar (1979) in their account of laboratory life, I was not following how they produced this knowledge. However, when talking with people who consumed raw milk, I was very interested in following how they reached their conclusions. It may seem like a slight and insignificant difference, but it requires taking only a small step to then go on to place these accounts into the hierarchical relation that I have been discussing in this article. The problem being that these forms of knowledge that have been placed into a hierarchy are not the same.

This point is important for both the literature on vaccination and raw milk consumption. When we desire to take a more balanced approach in our research, where we want to consider all sides, it is crucial to closely think about whether we are truly taking a symmetrical approach. When we do this, we may see that what we had initially assumed was "like with like" is not the case at all. For example, in the literature on vaccination, where scholars take a position that includes the perspectives of both medical professionals and people who refuse to vaccinate or are hesitant to do so, a third category of person is not considered very often. This is those people who regularly vaccinate either themselves or others. There appears to be a less visible need to *understand* the approaches and attitudes of people who want to vaccinate and do not question scientific knowledge about vaccines. The same can be said about research on raw milk consumption, and food safety and food hygiene. The focus of analytical attention is on those who consume raw milk rather than those who consume industrial pasteurised milk. It is interesting to explore to those who inhabit the "zones of wildness" as Dunn (2007) has called them, rather than those who support the "status quo" in microbial politics. Yet, including both approaches could be very beneficial because it would provide a perspective that enables us to see how scientific knowledge is both accepted and rejected. In other words, it enables us to see how this knowledge is consumed. In my mind, this is a truly symmetrical approach because it enables taking the same perspective on the different ways people consume scientific knowledge, both those who

“reject” it and those who “accept” it. In this sense, scientific knowledge would be treated as a boundary object, in the form Leigh Star & Griesemer (1989) have suggested, where it is our job to explore how this object is shaping social relations in these fields of interest. Thus, in such analyses, the focus of interest would not be on the relation between those who produce scientific knowledge and only one particular part of society who consume it, but on a wider sample of science “consumers”. It is tempting to speculate here that the seeming irrationality of those who reject scientific knowledge could appear less marked when held in relation with those who consume or accept it.

Conclusion

In this article, I have considered how we might analytically approach ethnographic relations, when we are doing fieldwork that includes both interlocutors who work in science and those who do not. As I have demonstrated by discussing writing on vaccine hesitancy and vaccine refusal, it is not easy to extricate ourselves from our scholarly relations in our own ethnographic research. I have observed that in the literature on vaccination, some scholars do not try to do this, whereby they try to work out how to change the minds of those who refuse to vaccinate or are hesitant to do so. But I have also argued that such an approach is problematic because it could be interpreted as taking the form of epistemological conversion, which I suggest is ethically questionable. It also raises broader questions about the role we have as anthropologists in such research. As I have pointed out, this is something a number of other scholars have observed, where they call for the taking of a more balanced approach. While these discussions are found in the literature on vaccination, I think they are relevant to all ethnographic research that accounts for different actors' perspectives, where some of those actors are working in science. As I have argued, Hufford's (2020, 2008) concept of methodological symmetry is useful here because it advocates for the balanced treatment of all interlocutors, where the ideas of those who may seem "other" to us are not dismissed without careful qualification. It is bearing his idea of symmetry in mind that I have then considered another aspect of our duplex ethnographic relations with scientists, which I think is important. This concerns how we might form the same ethnographic relations with people who work in science, and with those who do not. The answer I give is that our own relation to science makes it very difficult to do so. Due to being a part of the scientific process, we already have a connection as colleagues with interlocutors who work in science before we even meet them, and even with the best of intentions, I am sceptical at how possible it is to

"escape" this. These collegial connections will always be influential in shaping the form these relations take. But, as I have discussed just now, perhaps this is not the principal issue at stake. Instead, it is to consider whose knowledge practices we are setting up in a relation with whose. It is only to be expected that the knowledge produced by scholars in a particular field, or by people who have been trained to use it, such as paediatricians or microbiologists, is going to seem more grounded and robust than the knowledge employed by people who do not work in these fields. We could conjecture that our interlocutors who consume raw milk have surely got expert knowledge in areas that academics working in university settings and microbiologists do not have. This would result in an inversion of the hierarchy that I have been discussing in this article. Consequently, the question we need to ask is why are we setting up these relations as we do? What are our motivations for doing so? As I have argued here it seems that if we genuinely desire to take a symmetrical approach, then we need to think this through very carefully.

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