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(Dis)placing veterinary medicine: veterinary borderlands in laboratory animal research

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Introduction

The veterinary profession is a profession of multiplicities, with broad training and expertise deployed in a wide variety of situations. Each of these situations comes with its own world,[1] ranging from the financial and affective context of human–pet relationships, the capitalist context of agribusiness, and the surveillance and management of public health governance. Veterinarians' varied professional roles entail a variety of technical skills and 'situated expertise'[2] required to treat different species and deal with different non-veterinary stakeholders, such as pet owners, farmers, and animal research scientists. The veterinary profession, broadly defined, has traditionally been understudied in the social sciences, with a nascent literature examining the profession and its challenges, relatings, and mobilities.[3]

This chapter contributes to this emerging social scientific body of work by examining how Named Veterinary Surgeons (NVSs) – a mandated presence in commercial and university UK animal research laboratories – articulate their niche as part of the broader veterinary profession. While other outputs from the Animal Research Nexus Programme (AnNex) focus on the career journey of the individual NVS,[4] and the role of geography in the construction of the laboratory as a positive ethical space,[5] this chapter focuses more specifically on the borderlands[6] that emerge between clinical and laboratory practice when veterinary professionals articulate the practical and personal differences involved in moving between and performing different kinds of veterinary roles. In so

doing we point to the complex ways in which veterinarians draw, navigate, and blur boundaries between their professional worlds, despite ostensibly centralised professional regulation.[7]

In what follows we firstly review the limited existing work on the experiences of NVSs. The methods through which interview data were collected and analysed are then briefly described. The findings are presented by analytic theme, covering firstly the way in which the lab/clinic boundary relies on claims by NVSs that they are not 'real' veterinary professionals, secondly the maintenance of the lab/clinic boundary as exemplified in their reflections on engagements with the general public, and thirdly how this boundary is also sometimes blurred, via examples of shared learning across professional spaces and places.

The complexity of the Named Veterinary Surgeon role

In the UK, animal research is regulated via the Animals (Scientific Procedures) Act 1986 (ASPA), which creates a three-way system of licensing. The involvement of veterinary professionals in animal research did not begin with ASPA. However, the Act did make the appointment of NVSs at all licensed establishments mandatory.[8] ASPA created statutory responsibilities for animal welfare for which NVSs, among other named individuals such as Named Animal Care and Welfare Officers, are accountable.[9] These protections, some NVSs have argued, give a degree of consistency to the quality of animal lives within the laboratory as compared with those outside it.[10]

The role of the NVS, however, is not as straightforward as the legislative mandate might initially suggest. Indeed, as reflected on by Dennison's commentary in Chapter 13, all veterinarians have to take an oath when joining the profession, which is to make animal welfare their first priority. As Ashall and Hobson-West summarise, the role of the NVS is 'particularly complex in terms of accountability and professional responsibility, since the NVS is accountable to both the establishment licence holder (under ASPA), whilst *also* having professional responsibilities to the animals under their care, the public, other veterinary surgeons, and the Royal

College of Veterinary Surgeons (under the Veterinary Surgeons Act)'.[11] The implication is that the role is one that requires veterinary professionals to actively navigate the boundary between these two pieces of legislation, exercising professional judgement to reconcile potentially conflicting tensions arising from multiple professional accountabilities within the laboratory. As argued below, this navigation also entails a complex form of boundary drawing, which includes certain kinds of images of those outside the lab, including wider publics.

In addition to the flexibility introduced by several sets of legislation (see Palmer, Chapter 10 in this volume for more on flexibility), the NVS role harbours further complexities in that it is not simply a clinical role but involves a number of other areas of administration and advisory work within the laboratory, and relationship management inside and outside the laboratory setting. As has been neatly summarised by others,[12] vets have a diversity of expertise spanning 'comparative pathology, diagnosis, prognosis, disease prevention and treatment, anaesthesia and surgery, pain recognition and control, breeding control, and euthanasia'. This, it is argued, renders NVSs 'uniquely qualified to provide training, assessment, and supervision on what [are] considered to be veterinary interventions for scientific procedures'.[13] NVSs are consequently not only involved in the direct management of animal health and welfare, but are also involved in training, ethical review, and the implementation and promotion of the principles of replacement, reduction, and refinement (the 3Rs).[14] As with other veterinary professional roles,[15] the NVS position thus requires a specific set of social skills to develop and manage relationships with wider staff involved in animal research. As summarised in a careers section of a major veterinary journal, 'The NVS role requires good communication, good teamwork and good working relationships, with mutual respect for the responsibilities of others'.[16]

In addition to key relationships with others inside the laboratory, it is important to recognise the wider social context in which NVSs operate. For example, previous publications have pointed to the way in which NVSs imagine the wider public or wider audiences. An article published in 2006 reported that NVSs can feel 'caught in the middle', with one noting that 'the anti-vivisectionists

don't like you, because you're on the other side, as they perceive it [and] some scientists perceive you as trying to change the way they do their work'.[17] Previous sociological work has also highlighted the way in which NVSs draw on particular images of those outside the lab, in order to navigate and explain their own professional role. In their interview study, Hobson-West and Davies[18] show how NVSs articulate a particular imaginary (dubbed 'societal sentience') of wider public views towards animals and particular species, and that this has an impact both on legislation, and on animal care practices.

More broadly, scholars have sought to articulate the role of publics in the wider animal research debate. For example, Davies et al.[19] have highlighted the positioning of publics as 'stakeholders with opinions that matter', and Hobson-West has previously argued that public opinion is framed as a 'resource in the animal research debate',[20] used by all sides to show themselves as legitimate. Beyond surveys, publics are also enrolled more directly in research governance as 'lay reviewers on funding panels, where their expertise helps align research priorities and practices with public expectations of research'.[21] To return to veterinarians, public opinion is likewise enrolled to frame the veterinary profession as trustworthy, with repeated surveys conducted for the British Veterinary Association (BVA) and the Royal College of Veterinary Surgeons (RCVS) positioning the veterinary profession as one of the most trusted in the UK.[22]

In summary, NVS work exists at the intersection of a number of potentially conflicting sets of perceptions and expectations regarding animal research, for example between 'anti-vivisectionists', as claimed in Smith and Wolfensohn,[23] and the more romanticised view of the profession cultivated by veterinary professional bodies.[24] Within this context, as for other professionals, NVSs have to actively navigate their own place within both animal research and their profession. So how exactly do veterinarians in the laboratory go about this? This chapter focuses on how NVSs draw contrasts between their own role and with clinical practice, and shows how this requires a series of discursive boundaries to be created and blurred.

Methods

One strand of AnNex focuses on publics and professions. As part of this strand of work, NVSs were recruited through snowball sampling via the project team's existing networks and a callout during a specialist conference. The interview agenda and empirical design benefited from the advice of an advisory panel comprising of three NVSs, to ensure that the work was pertinent to veterinary stakeholders. Ethical approval for data collection was granted by the School of Veterinary Medicine and Science at the University of Nottingham (approval number 1800160608), and data collection took place in 2018. All those interviewed were currently employed as an NVS, and many had previously worked in general clinical practice.[25] All vets were associated with a commercial or university research site. This is noted here in order to recognise that while the vast majority of animal research occurs in a laboratory setting, some does occur outside 'in the field', including in the veterinary clinic, where different regulatory boundaries for veterinarians are also particularly important. However, this chapter focuses on the role of the veterinarian in the UK animal research laboratory.

Qualitative interviews were chosen as the research method, firstly due to the lack of existing data on NVS work, and secondly the desire to explore the work of NVSs in detail through their own accounts and in their own language. Interviews were carried out in person at a location identified by the participant. An interview guide was developed and discussed with an expert advisory panel of three NVSs, and was trialled during two pilot interviews with no subsequent alterations. The interview format and order of questions were subject to revision as the data collection progressed. Interviews were transcribed by a third party under a confidentiality agreement. Transcripts were anonymised with all identifiable material regarding names, locations, and organisations removed. Each transcript was assigned a random but gender-specific pseudonym. These transcripts were analysed by the first author using NVivo 12. Codes were also discussed between the authors.

The analysis approach was reflexive Thematic Analysis[26] and involved two cycles of inductive coding. In the first cycle, transcripts were coded line by line in order to prioritise the voices of the participants.[27] The second round of coding aimed to understand the patterns that underpinned these initial categories,[28] and these patterns were used to coalesce this coding into analytic themes. This analysis was a creative process, and the themes did not 'emerge from' the data but were 'active creations' of the analyst.[29] The findings now described are therefore an interpretive story, developed from this data interacting with the biography of the researchers. It is also important to note that what follows does not mirror the format of the interview agenda, nor the phrasing of the interview questions. As is common in qualitative research, we have developed and refined these categories via the analysis. In practice these themes are highly interrelated, but to allow readability we have divided these into three. First, we consider how the boundary between the lab and the clinic is constructed. Second, we consider how this boundary is maintained. And finally, we consider how the boundary is blurred.

Constructing the lab–clinic boundary

The RCVS 2019 Survey of the Veterinary Profession[30] found that the main area of UK veterinary surgeons is small animal practice (52.6%). By contrast, the numbers working in animal research fall into the 'other' category, which comprises 2.8% of the profession and includes consultancy, racing, and government roles. This also helps to explain the lower public profile of the NVS as opposed to other veterinary roles.[31] In the interviews, participants were well aware of their NVS role as niche, and used various discursive strategies to set themselves apart from the mainstream veterinary profession. For example, NVS Peter described laboratory veterinary medicine as the 'poor cousin of the veterinary world'. More specifically, interviewees would often contrast the laboratory role in which they were using their veterinary expertise to the role of a 'normal' or 'typical' veterinarian. Sometimes this contrast was made in passing, as part of wider reflections, or made explicitly, when referring to their own career history.

> I guess initially when I wanted to go to vet school, since I was a little girl, I had wanted to do small animals, so the typical veterinary surgeon. (Natasha, interview, 2018)

> [A]fter my degree I went straight to work, just a normal vet, small animal practice. (Nathalie, interview, 2018)

However, this perception was not always presented in an internalised manner. As shown in the next extract, Melanie recounted the way in which a colleague appeared to distinguish between 'real' veterinary work and 'paper pushing' as the NVS:

> When I worked with [former colleague], two or three years ago, [former colleague] always said to other people always, farmers or whatever, 'Now, I do real veterinary work', but what [former colleague] meant was, 'you don't do any veterinary work here! It's just paper pushing. I don't know what it is, but it's nothing really like what you do in general practice'. (Melanie, interview, 2018)

This portrayal of NVS work as more hands-off than general practice work was recurrent in several narratives. While NVS work was often separated from general practice in these accounts as being part of a different 'world' (multiple interviewees), experience developed in general practice was still constructed as professionally invaluable in the laboratory:

> A few years ago, twice actually, we had new graduates come straight into NVS and it was disastrous, it was absolutely disastrous, because we can't provide enough procedural work to get them slick. That's different in different institutions of course but here, suddenly you need those skills, they have to come from somewhere and if you haven't been in practice before, where do you learn it? We don't have the frequency to teach people enough. (Maddison, interview, 2018)

This was not solely an issue for new graduates however, as Olivette contended that as an NVS, one can lose practical skills and become less effective despite having practice experience:

> I personally feel just because I'm a vet, if I haven't touched or done a certain procedure for months or even years, why am I suddenly magically going to be able to do it? I've got a slight shake, I used to be able to shake my way into any vein, but I'm not sure if I could shake my way into any mouse vein if I haven't had any recent training. […]

> It doesn't give you a gold pass just because you've got the degree if you haven't used your hands for a while. (Olivette, interview, 2018)

Despite these examples highlighting the value of previous clinical experience, the particular language used by NVSs to contrast general and laboratory practice was still striking. For example, Maddison described their previous role in general practice when they were 'a real vet' as their 'previous life', and implied the NVS was not seen as a 'proper job':

> I was an equine vet in my previous life and the practice was being sold and I was simply looking for a job in the area and I thought I'll do this for a short time before I find a proper job … I'm very welfare driven in the whole approach to my post and I feel that's really rewarding and I must say, as a real vet, my understanding of ethical things was minimal compared to what the NVS role provides you with. I regret that now when I look back on my time in practice, there's a lot of things I would've done very differently now. (Maddison, interview, 2018)

However, it is important to stress that using such language did not mean the NVS role was presented negatively in terms of job satisfaction. Indeed by contrast,[32] some veterinarians did note the advantages of the NVS role as compared to general practice, both for themselves and the animals. For example, some veterinarians claimed that they could care more effectively for more animals in the lab, and more effectively influence others. This can be understood as a form of resistance to social movement campaigns, which have criticised veterinary involvement in animal research.[33]

Other participants also reflected on the personal advantages of the NVS role. In the following example, Paul appreciates that the NVS role allows him to 'have a life' before nevertheless going on to repeat the equation of general practice with 'real vet' work:

> You have a life [as an NVS], that's what I would say. Although I don't feel like I'm a real vet anymore. […] I used to do a lot of routine surgery, routine stuff, three, four hours a morning in a busy, small practice, and I like working with my hands. And also, you're problem solving the whole time. The medical challenges, the diagnosis, that's the art and science of veterinary medicine, it's diagnosis and then of course treatment and hopefully seeing a happy result. Also, the instant cure of surgery, I used to really enjoy that. Probably getting

> back to why I did veterinary in the first place, I think the real vet is the practitioner. (Paul, interview, 2018)

Overall, this section has demonstrated the way in which, during interviews, NVSs drew discursive boundaries between general clinical veterinary practice and the NVS role. That these roles are described as different is not in itself surprising. Indeed, the RCVS Code of Professional Conduct[34] frames the NVS role as more *advisory and managerial* than *clinical and technical*, given that the NVS 'provides advice on the health, welfare and treatment of animals', is 'entrusted with the necessary management authorities' and 'should advise licence holders and others on implementing the 3Rs'. Rather, what struck us during the analysis was the particular language used to draw these distinctions. By constructing general practice as 'real' veterinary practice, these discourses effectively situate the NVS role as on the margins of the broader profession. What is also striking is the way in which language use could be seen to assume notions of power. Despite the rapid feminisation of the profession, Clarke and Knights[35] argue that vets in practice who they interviewed reproduced a masculine narrative of mastery and orderliness, as opposed to the 'skillful performer' of practice who effectively mobilises communication and relationship management skills.[36] One could interpret the data in this section as a further reproduction of this gendered narrative, in that clinical practice is presented as hierarchically above the more managerial and advisory NVS work. We return to why this might matter in the conclusion.

Traversing the lab–clinic boundary

The previous section focused on how NVSs in our study drew discursive boundaries between general veterinary practice and the specific NVS role. This section changes tack to explore how NVSs negotiate their relationship to wider publics outside the laboratory environment. This, we found, was an important part of the way the lab–clinic boundary was maintained.

During interviews, NVSs recounted personal fears of being attacked by organisations or individuals committed to ending

animal research. Such fears have been reported in previous interview studies with others, including senior laboratory scientists.[37] Some veterinarians described how this fear still drove personal behaviour. For example, Mia, who works both in general practice and in the animal research laboratory, described holding back on sharing some information with her children for security reasons:

> We did have an incident where we were targeted as a veterinary practice by [group] and so I was really concerned about them turning up outside the school gates and by inadvertently one of my children saying something in a school debate or […] actually revealing that [they] knew rather more about the topic than [they] should have done, that it might have led someone to put two and two together and put them in some sort of danger. (Mia, interview, 2018)

However, in the present study, the most common narrative was that these safety fears were predominately in the past. Nevertheless, what we found striking was the way in which NVSs still recounted complex interaction with wider publics, not only or directly due to their association with potentially controversial science, but to do with their *professional status as a veterinarian*. In short, the analysis points to a careful line being walked, between on the one hand a perceived public image of a typical or ideal veterinarian in clinical practice, and on the other their actual lived reality of laboratory work. What matters here is that some interviewees saw their role as potentially transgressive in the public imagination. The space of animal research, for example, was not considered to be an instinctive fit with the romanticised view of the veterinary profession personified in the UK by individuals like James Herriot. Indeed, the semi-fictional image of Herriot was specifically invoked by multiple interviewees regarding their everyday conversations with members of the public, for example in the hair salon:

> When you say 'I'm a vet' they picture James Herriot or the small animal vet in a white coat. That's it. So, you're safe saying 'I'm a vet'. (Maddison, interview, 2018)

> It becomes complicated and it's affected me in that I'm now hesitant to tell people I'm a vet because the next question is always, 'Oh where?', and I got around it the other day for the person cutting my hair and it seemed to work, I may go this route, in that I just said,

> 'Oh, I used to be a cattle vet but now I'm a specialist vet and I study diseases' and it's at that point they change the conversation. So, it's difficult because I always used to have a good conversation with people outside, 'Oh, you're a cattle vet, I've seen James Herriot' or whatever. (Nicole, interview, 2018)

As Nicole illustrates, the atypicality of the NVS role from the general perception of what a veterinary professional does – or where they belong – precipitates a requirement to navigate the presentation of their professional image in conversation with people external to animal research. This is confirmed by Nathalie, Martin, and Maeve, who all recalled a reaction of surprise from people they spoke to upon discovering that their veterinary role was in an animal research laboratory:

> The classic is, 'How can you do that? You are a vet, you love animals?' And that's when you explain that I love animals, that's why I do it, because I'm the only party who's there for them. (Nathalie, interview, 2018).

> I've had nobody ever saying, 'that's dreadful', and lots of people were surprised that people [in animal research] employ vets. If they talk to me a bit longer […] they say, 'I'm so glad that people like you exist'. (Maeve, interview, 2018)

> To begin with, some of them are … surprised maybe. Because obviously you're a vet, it's assumed that because you're a vet you care about animals and you care about their wellbeing, and then that sounds opposed to doing research with them but then you explain what the framework you work under is, what is the legislation, what are the benefits of doing what we do, what would be the downsides of not doing it and I haven't had any issues with that. (Martin, interview, 2018)

As with Nicole, Martin's account thus demonstrates that discussion with the public about their work requires some labour of translation to find a way to communicate the positive value they see in their work in the face of the contradiction that the NVS role is assumed to foster in the public imagination. In the extracts above, such personal labour is presented as ultimately successful. However, this is not always the case. In the following detailed example, Melody recalls her difficult experiences of talking about

her work. First, she recounts a conversation with a pharmaceutical representative who was sponsoring a continuing professional development meeting she was at, but ironically failed to see the full link between animal research and pharmaceuticals. Second, she recalls a disappointing dinner interaction, where she divulged her role to the person sitting next to her:

> I had one rep … and I said what I was doing. She pulled a right face and I thought, 'you're selling this and I know your company has just bought a number of animals from us to do … ', so clearly she had no idea either. She was a vet selling medicines who thought that it was not really very nice that I was involved in animal research from veterinary medicine because in [organisation] we did veterinary as well as human medicines. Generally, that's not been a pleasant experience. Even more recently I was at a presentation dinner sitting next to [a business person] and I thought 'Let's try this with a non-vet person'. He seemed like a very posh, well-educated kind of person. He was horrified that I even told him and I said, 'you seem like a trustworthy person', but I thought, 'we're kidding ourselves to think that people are ready for this' … He said, 'you shouldn't be so open with that'. (Melody, interview, 2018)

In Melody's account, she stresses that neither proximity to animal research nor being 'well-educated' were barriers to having a negative attitude towards animal research and the veterinarians involved in it. According to Melody, then, we are 'kidding ourselves' that wider audiences are 'ready' to appreciate the role of the vet in the lab. As analysts, our contention is that we need to appreciate the wider social context of veterinary practice (and not just the wider social context of animal research) in order to make full sense of these data.

As already highlighted, professional bodies such as the BVA and RCVS are keen to stress that the veterinary profession is regarded by publics as highly trustworthy.[38] Previous publications have also highlighted 'love for animals' as a major pull factor for veterinary occupations,[39] and have pointed to the way in which, unlike in human medicine, the UK veterinary profession has largely been left to regulate itself.[40] Irvine and Vermilya[41] also stress that among veterinarians, women are often stereotyped as being attracted to the veterinary profession for nurturing and maternal reasons.

Such work helps to paint a picture of the wider social context in which NVSs operate, and helps to explain why such careful walking of the lab–clinic boundary is deemed necessary. Working in animal research as a veterinary professional was perceived by interviewees as sometimes being anathema in the mind of the general public, contradicting a perception of a more feminised veterinary professional as animal-lover and healer. While the previous section illustrated how NVSs themselves presented their work as atypical for the veterinary profession, their reported experiences in communicating with publics imply that there is not only a public imagination of what a veterinary professional *is*, but also of where veterinary professionals (do not) belong.

Blurring the lab–clinic boundary

In the section above, on 'constructing the lab–clinic boundary', the analysis illustrated the way in which NVSs themselves drew a clear boundary between the 'real' veterinarian in general practice, and the NVS role on the margins of the profession. The second section argued that NVSs have to engage in specific labour to walk this boundary between the lab and the clinic during interactions with those outside the laboratory. This final section considers the ways in which interviewees' detailed examples of their work to blur the apparent boundary between the lab and the clinic.

Some interviewees were keen to discuss the way in which skills or expertise they had developed in laboratory animal research could benefit their or others' work in general practice. For example, several NVSs noted positively that laboratory animal veterinary medicine had a more developed level of knowledge and technique regarding the treatment of small animals such as rats than could be routinely found in general practice. While this was described by Mia, an NVS who also works in practice, as a 'side-benefit of research', others argued that this transfer between worlds was not that common. One reason for this, Oliver argues, is that there are only specific areas of laboratory animal veterinary medicine that are usefully transferable between fields:

> When I first started work for [organisation] the friend who recruited me said 'Oh, it'll make you a better rat vet', and he was absolutely right. But there is some dichotomy in the knowledge because it doesn't matter how much I know about Sendai Virus or Mouse Norovirus, that's never really going to be very much use in my work as a first opinion general practitioner. Whereas, for example, knowing how to anaesthetise them and how to stitch them up so they don't undo the stitches is very useful. (Oliver, interview, 2018)

Interestingly, given the previous discussion about not sharing information about their role in the lab, Oliver stresses that his city centre clients remain unaware of how he has developed these higher level skills.

> They don't know why I'm a rat expert. So it's now got to the stage where I'm comfortable, I've spayed quite a few rats and hamsters for people who wanted … we've got quite a lot of rat-owning clients, being a city centre practice … So as I say, we get quite a few requests now to spay the rats, for example, to try and reduce the risk of mammary tumours. (Oliver, interview, 2018)

Both Oliver and Mia noted that, while they had developed greater knowledge and skill in rat medicine, they were rarely asked how these had developed and they felt that neither general practice clients nor other veterinarians realised that it was as a result of working in laboratories. Mia also recounted an example of telephoning the author of a textbook to ask for advice in treating a rat, but still maintains that more widely her colleagues would be unaware that such knowledge would have been developed via animal research:

> I'm not certain that vets in practice realise that it's come from research though. If I asked my assistant where they thought it came from I'm not sure that they would realise that most of it had been gleaned over the years from people trying things […] in NVS work. (Mia, interview, 2018)

Later in his interview, Oliver also noted that, given concerns about making things public, he would personally be cautious about advertising to his clients where his enhanced knowledge had come from:

> I wouldn't promote it in the practice […] I think within my own practice I would worry whether that might affect my client base, whether

> it might, I suspect if it was widely known I suspect my clients would split into two camps, one who supported me and one who said, well, we don't like that and we'll go somewhere else. (Oliver, interview, 2018)

The NVSs interviewed also provided further examples of how techniques, skills, or knowledge gained in the laboratory can benefit veterinary care in general practice. For example, Mia highlighted benefits from diagnostic tools like the rabbit grimace scale,[42] which she had pushed to introduce in their clinic:

> I've been going on for ages and I wanted to introduce pain scoring in practice for a long time and no one had really listened because, obviously, as an NVS it's what you do all the time, […] and I was able to say, 'But do you know that comes from research?' […] That's something that was probably pushed in our practice because I was so familiar with it in research. (Mia, interview, 2018)

Euthanasia was also raised as an example of where experience in the lab could potentially benefit clinical practice. Maddison gave an example of how this 'influence' could potentially happen at scale using social media. He mentioned a veterinary Facebook group, with thousands of registered vets as members, which included requests for advice that he felt well placed to provide:

> It's really quite good. I was reading some of the posts and they talked about euthanasia with small animals and I thought 'my god!', and 'where can you learn this, that and the other?' If they looked up a document written for the research on euthanasia, we have so much material that they don't seem to know about. I find that quite strange because somebody said where can you find this, that, and the other, and I could give you about 10 different references straight away. (Maddison, interview, 2018)

Crucially, however, in some examples such as euthanasia, NVSs also reported that the influence could go the other way: that experience in practice can and should impact on laboratory care. To return to Mia again, she noted a requirement introduced through ASPA that mirrors a standard practice in the clinic:

> Coming from practice the other way though, I think one of the biggest things that's been really important is the change with ASPA

> where you have to ensure that the animal is definitely dead by a second method and that's something that's always been done in practice. So, [in practice] you would never contemplate euthanising an animal and not listening for a heartbeat. You just wouldn't, would you? So, actually having a secondary method, that's really reassuring that the animal is definitely dead before anything else happens to it. (Mia, interview, 2018)

Overall, then, this section has focused on the way in which NVSs' accounts seem to blur the boundaries between the worlds of clinical and laboratory practice. In Maddison's example above this could take place through the use of wide-reaching social media platforms, while in Mia's example this took the form of legislative change. Indeed, there is evidence that professional organisations are keen to celebrate or encourage shared learning; for example, in April 2021 a webinar was organised entitled 'Ethical Challenges – How Can Laboratory and Clinical Vets Support Each Other in Decision Making?'[43] Despite such efforts, one potential contribution of our analysis is to highlight the challenges that remain for individual NVSs to talk openly about this shared learning. What their accounts imply is that it is not just levels or depths of expertise that are made to matter, but rather where legitimate expertise comes from.

Conclusion

The veterinary profession is one of multiplicities, and the broad training that veterinarians receive makes them suited for a wide range of occupations – in small animal clinics, on farms, in government, and, as with the qualitative interviewees whose accounts are drawn upon in this chapter, in laboratories. In summary, our reflexive thematic analysis suggests that NVS work exists at the intersection of a wide and conflicting set of expectations and assumptions, with NVSs engaged in the simultaneous drawing, navigation, and blurring of boundaries between professional worlds and spaces.

Despite the broad technical expertise that all vets are deemed to possess by virtue of their training, there are some clear images in these NVS interview accounts of what a 'real' veterinary professional is, what the public's imagined veterinary professional does,

and where that professional belongs. These accounts are complex and contradictory, with the NVSs arguably partly complicit in reproducing a hierarchy within the profession, by tying 'real' veterinary work to the technical and scientific clinical work of general practice, contrasted with the administrative and managerial work of an NVS. Indeed, it is this supposed atypical nature of their role that creates a specific imperative to walk the border between general and lab practice in their interaction with others.

More specifically, the accounts assume a particular vision of the 'general public'. Previous sociological work[44] argued that NVSs imagine the public as having a particular attitude or sensitivity towards *animals*. This chapter extends the literature by focusing instead on the imagined public's attitude or sensitivity towards *veterinarians*. This imaginary sees laboratory veterinary work as anathema to the caring and animal-loving veterinary professional encapsulated by a popular-imagination figure like James Herriot. We cannot here confirm whether this image of the veterinary profession is indeed held by wider publics – that would require a different empirical research project. However, what we can conclude is that this public imaginary is made to matter in multiple ways, for example by changing what NVSs tell their children about their work, or how they withhold the provenance of their uncommon expertise in specific species from clients.

Taken together, these complex strands point to both conceptual and material spillovers between the boundaries of general veterinary practice and laboratory veterinary work. This creates complex borderlands that veterinary professionals navigate as they move between different spaces marked by inherent regulatory tensions,[45] and also carry different personal and professional identities and imaginaries of veterinary work into and out of these spaces. NVSs grappled with their identity as veterinary professionals, reproducing masculine narratives of mastery and orderliness around the conception of a 'real' veterinary professional as someone involved in technically challenging clinical work rather than the 'skillful performer' of practice who effectively mobilises communication and relationship management skills.[46] Socially, conversations with the public were described as challenging engagements, as veterinary professionals were imagined as trustworthy and maternal

animal lovers – consistent with the image presented by veterinary professional bodies[47] and the genuine occupational pull factor of love for animals[48] – at odds with the controversial space of the laboratory. Moving beyond the refuge of identifying simply as a veterinary surgeon consequently required the development of strategies for engagement or avoidance of conversation about laboratory veterinary work. We would argue that such conclusions were only possible by appreciating the interview accounts of NVSs as multiply-displaced veterinary professionals, rather than a narrower analysis which could have analysed the accounts of NVSs as animal research professionals. For example, only by appreciating the prior career trajectories of NVSs and the shared learning as they have travelled between spaces of veterinary expertise,[49] is it clear that the boundaries between the worlds of the lab and the clinic are experienced by these professionals as porous.

Indeed, we hope that the reflections presented in this chapter may interest scholars with an interest in the complex ethical boundary drawing of other types of actors, for example health professionals, whose work sometimes requires movement between the lab and the clinic.[50] In terms of veterinarians, however, we also hope that this work will be situated not just within social scientific work on the animal research laboratory, but also within the oft-contested and wider history of veterinary expertise. The veterinary profession in the UK has succeeded in carving out a professional monopoly over animal healthcare regulated under the Veterinary Surgeons Act 1966, which defines the art and science of veterinary surgery and medicine as covering diagnosis, and the medical and surgical treatment of animals.[51] However, while expertise remains 'precarious' and impermanent for individuals, it is also historically and spatially contingent.[52] For example, this chapter has shown the way in which NVSs present the 'real vet' as involving technical work in practice rather than the administrative and advisory role of the NVS. However, it is possible that this clinical ideal type may already be fading from prominence, in an increasingly commercialised veterinary industry that challenges veterinary professionals to adopt and adapt the skills of salespeople.[53]

That the veterinary profession as a whole stands at somewhat of a crossroads is argued in a recent article in the *Veterinary Record* (the

flagship journal of the BVA). Gardiner[54] argues that the profession faces several contemporary challenges that should prompt reflexivity in considering questions such as '"What should the veterinary profession look like?", "How many vets do we need?", "What areas will they be working in?", and "What role should veterinary schools play?"' The complexity of the borderlands described in this chapter may thus exemplify the respective challenges to, and lack of consensus on, the place, value, and role of veterinary professionals in contemporary society. As long as veterinarians are in the laboratory, grappling with these big issues is, we would argue, necessary in order to fully appreciate the workings and nuances of the animal research nexus.

Notes

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