Practice makes perfect? Skillful performances in veterinary work

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Abstract

Is vetting a craft that must be learned owing to the limitations of scientific discipline, or simply a question of practice makes perfect? This question arose from our empirical research on veterinary surgeons (vets), who we found were often struggling with the divergence between the precise and unambiguous knowledge underlying the training and the unpredictability and imprecision of their everyday practices. These are comparatively underexplored issues insofar as the literature on vets tends to be descriptive and statistical, focusing primarily on clinical matters and associated human-animal interactions. Our cliché title has a question mark because while many vets remain embedded in the disciplined 'certainties' and causal regularities within their training, in practice this ordered world is rarely realized, and they are faced with indeterminacy where the 'perfect' solution eludes them. Vets often turn these unrealistic ideals of expertise back in on themselves, thus generating doubt and insecurity for any failure in their practices. In analysing vets' experiences, we pay attention to the anatomical models of science, where linear causal analysis is expected to provide orderly and predictable outcomes or 'right' answers to problems, as well as notions of expertise that turn out to be illusory.

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Nothing fails like success. (Alan Watts, 1989: 75)

Introduction

The working lives of veterinary surgeons (vets) remain comparatively under-explored both by veterinary and organizational researchers. Much of the research is restricted to clinical pathology, technical advances or sustaining injury from human-animal interactions (Hjorth and Roed-Peterson, 1980), and problems of mental health (Allister, 2015), addiction or suicide (Bartram and Baldwin, 2010; Hansez et al., 2008). A minority of studies has drawn attention to professional exclusivity and hierarchical/gendered status (Hamilton and Taylor, 2013), the complexities of human-animal interactions (Enticott, 2012; Hamilton and Taylor, 2012) and regulatory anomalies (Hobson-West and Timmons, 2015). None, however, seem to focus on the everyday management and organization of veterinary work.

Our problematic focuses on the discrepancies between theory and practice within the profession and how these may have contradictory consequences for everyday work. This explains our use of the question mark in the cliché title 'practice makes perfect' because, while vets are embedded in disciplined 'certainties' and causal regularities within their training, this is rarely realized and they are often faced with unpredictability, indeterminacy and problems for which any 'perfect' solution is elusive (Berg, 1997). This leads us to the research question of this article: is vetting a craft that must be learned owing to the ontological and epistemological limitations of the scientific discipline, or is it simply a question of practice makes perfect?

We argue that the dominant focus on clinical matters and the scientific model renders vets vulnerable and anxiously attached to a perfectionist stance; especially unrealistic given the uncertainties surrounding their daily practice. While expertise is important, it does not necessarily dissipate the tensions and contradictions that vets experience in their daily practice. Our research therefore problematizes veterinary practice by raising questions about functional notions of expertise, as well as the interactional competencies (Collins and Evans, 2007) that, in practice, clinical science might marginalize or even ignore. Given the uncertainty and precariousness surrounding social relations, daily work with clients, receptionists and nurses, veterinary work is beset by situations of indeterminacy where ambiguities, tensions and contradictions arise. While clearly necessary, clinical skills alone are insufficient in dealing with farmers, pet owners and ancillary staff who mediate their relations with the animals. Yet even outside these complex and troublesome social relations, ambiguities and uncertainties surround clinical practice, for medical interventions cannot be predicted or controlled in ways that vets or their clients might anticipate or desire (Berg, 1997; Enticott, 2012).

Our contribution is threefold. First, and most importantly, we address the concept of 'perfectionism' that seems to be pervasive among vets, which goes beyond traditional explanations of 'resilience' and 'coping'. Second, we challenge the naturalized form of individualistic reductionism in other studies by tracing 'perfectionism' and its association with mental health problems to the particular ontological and epistemological paradigms that underlie the scientific model: the linear causal rational belief in getting things right. Third, and in common with other professions, we attribute some of the problems to idealized notions of expertise that axiomatically are impossible to 'achieve', and further undermined by the transformation of veterinary surgeons to 'service provider' status in a competitive neoliberal economic context.

In the remainder of this article, we first discuss veterinary surgeons in the context of the paradigms of knowledge that ground their activity in everyday practices. An outline of the methodological and analytical approach adopted then prepares the ground for presenting the data from our study of 10 different veterinary practices. After, we organize our data into three sections relating to ideas of competent practice. In a discussion section, we explore how idealized notions of practice may combine with actual experience in ways that render veterinary medicine a precarious and potentially demoralizing occupation. We conclude by suggesting how painful revelations later on may be alleviated by some modification to the ontological and epistemological assumptions presumed by the profession.

Vets in context

Veterinary colleges[1] act as 'gatekeepers to the profession' (Andrews, 2009),[2] recruiting only students with the highest A-level results to undertake a five-year degree programme in veterinary medicine. The registration and regulation of 20,000 practicing veterinary surgeons in the UK[3] falls under the auspices of the Royal College of Veterinary Surgeons (RCVS), where a license to practice in accordance with the Veterinary Surgeons Act 1966 is granted only after student-vets take an oath to 'ensure the health and welfare of animals committed to [their] care'. Currently, most (80%) graduates are female (Buzzeo et al., 2014), and go in to clinical practice as first-opinion vets, specializing in equine, large or small animals. However, approximately 10% of graduates leave the profession annually, despite their considerable financial, emotional and intellectual investment.

Like most professions, *credentialism* allows veterinary surgeons to claim specialized, esoteric (Wilensky, 1964) and exclusive (Friedson, 1971) knowledge that affords them specific *jurisdiction*. It has been argued that skills and knowledge of professionals are deliberately shrouded in mystery to perpetuate 'myths about their difficulty and effectiveness' (Haug, 1975: 198), while medicine has also been subject to 'increasing attempts to transform the "art" of medical decision making into a "science"' (Berg, 1995: 437). The allure of scientific and objective knowledge tends to create an illusion of control around 'the perpetual uncertainty' (Enticott, 2012) that is endemic to both human and non-human medical practice (Gawande, 2014), fuelled by growing attachments to science, and medicine in particular, and reflecting the need to satisfy humans' desire to prolong life, or postpone death.

Of course, technical rationality and its association with science cannot be separated from the history of veterinary surgeons that, like other professions, are steeped in an ideology of 'justifying inequality of status and closure of access' (Larson, 1979: xviii; see also Johnson, 1972). However, this is gradually being eroded through economic de-regulation, market competition and the de-professionalizing effects of the commodification of its services, where commercial rivalry 'squeezes practices' and 'profit margins' (Henry and Treanor, 2012: 1; Strasser, 2013), enforcing work intensification and arguably transforming expert professionals into commodified service providers. In parallel processes, modern governmentality reflects and reproduces subjective self-discipline (Foucault, 2000: 74–76) where vets are forced back on themselves, such that

they feel personally responsible for problems and events well beyond their control (Berg, 1997).

Vets in practice

[T]he more you strive for some kind of perfection . . . the more you are playing a rarefied and lofty form of the old ego-game. (Watts, 1974: 71)

Studies of work and Organization show how occupations can provide a major source of meaning and identity in our lives, while simultaneously provoking insecurities and doubt (Grey, 1994; Knights and Willmott, 1989). It seems that the veterinary profession is no exception for it is presumed to involve expertise, prestige, wealth, and intellectual competence in caring for 'sick animals, and offering comfort and support to concerned clients' (Kahn and Nutter, 2005: 293). In practice, it has frequently been reported that vets experience considerable stress (Buzzeo et al., 2014: 16), doubts, anxieties, insecurities, mental health problems, drug addiction and high levels of suicide (Bartram and Baldwin, 2010; Platt et al., 2012). Nevertheless, there is limited understanding of how insecurities and concerns might partly reflect veterinary colleges not preparing students adequately for 'a career in practice', especially relating to fears about making mistakes and issues of self-confidence (Tomlin et al., 2010). For example, in their first year of practice 78% of graduates admitted to making 'iatrogenic'[4] mistakes owing to inexperience, time pressures and lack of supervision and some 'suffered a loss of confidence . . . felt guilty or upset . . . and questioned whether they should continue to work as a veterinarian' (Mellanby and Herrtage, 2004: 762).

Bartram and Baldwin (2010) suggested a 'complex interaction of possible mechanisms' as salient for mental health issues and suicide rates including: characteristics of those joining the profession; work stressors; knowledge and means to commit suicide; professional isolation; drug misuse; contextual attitudes towards euthanasia; and even suicide contagion. Other studies (Batchelor and McKeegan, 2012; Hamilton and Taylor, 2013) have focused on the ambiguous nature of veterinary practice in an attempt to understand the stress involved, while responsibility for stress has been formally devolved to individuals via a code demanding that they 'take steps to protect their own physical and mental health' (Magalhães-Sant'Ana et al., 2015: 654). A brief look at the frequency and severity of 'posts' by vets at www.vetconfessions.com, shows how these organizational deflections (Newton, 1995) are as fantastical as they are ineffective:

It's a career I've mostly hated, convinced that if I just worked harder, learned more, specialised . . . there would come a point at which I would suddenly start enjoying the job, or at least find it bearable. That point has never come and I now know it never will. (www.vetconfessions.com, Anon)

Our interest in vets eschews 'individualistic, naturalistic, decontextual and apolitical' (Newton, 1995: 77) explanations of stress, for these serve to reinforce rather than challenge, the reduction of public problems to private issues (Wright-Mills, 1959). Instead, our focus is the insecurities and anxieties that are entangled with notions of self, society,

perfectionism and expertise that lead many in this specific occupation to be so troubled. Such neoliberalism is culpable in legitimizing anxiety and doubt as a 'personal short-coming, or shame' (Schwartz, 1987: 333), whereupon we 'feel bound by success' to the extent that any failures are interpreted as our 'personal inability to mobilize the right tools in the right situations' (Deslandes, 2016: 16). This resonates with reports from vets who often attribute 'bad' outcomes to their personal incompetence (Platt et al., 2012), where a series of 'unsuccessful' encounters may pose a threat to their sense of competence, credibility and expertise, prompting them to challenge their ability to practice (Mellanby and Herrtage, 2004).

For both medics and vets the 'audience has high expectations of competence' (Haas and Shaffir, 1977: 71), for the obvious reason that there are grave consequences when things go wrong. Even when 'backstage', this performance cannot stop completely because, as Butler (1990) argues, there is no essential self that escapes the pressures; rather performance is inexhaustibly tied to the identity that is routinely constituted and practiced through it. Moreover, Schuurman and Franklin (2015) suggest that working with animals exacerbates the 'situated' and 'risky' nature of their expertise, for at any moment it can be undermined. It could of course be argued that vetting has always been an occupation requiring a performance of uncertainty (Carr, 2010):

> It's a funny profession. It offers unparalleled opportunities for making a chump of yourself. It helps to be good at the job . . . but even if you're a positive genius, humiliation and ridicule are lurking just around the corner. (James Herriot, 2010)[5]

However, in contemporary times, marketization and the internet may present increasing and more explicit challenges to expert practice, where vets are confronted with clients that will 'question, compare and treat all advice with a skeptical ear' (Haug, 1975: 212), while also seeking to avoid 'conflict and a loss of business' (Hamilton and Taylor, 2013: 147). We now turn to vets' anxieties about idealized notions of what constitutes 'perfect' knowledge, and their tendency to conflate this with ideas of competence and expertise.

Scientific relations and professional education

According to Collins and Evans (2007: 140), the highest level of proficiency is *contributory expertise*: 'to do an activity with competence'. Although predicated on knowledge, this requires additional elements, particularly *interactional expertise*: social skills concerning talking, reflecting and translating, and located 'in the middle ground between practical activity and books' (Collins and Evans, 2007: 30). In veterinary terms, client consultations are the mediating point between education and clinical skills, where expertise is *enacted* in the moment, but is dependent on an 'audience willing to recognise [vets] as experts' (Treem and Leonardi, 2016: 1). We are sympathetic to the view that much rests on the veterinary surgeon's persuasiveness in presenting a 'cloak of competence' (Haas and Shaffir, 1977), rather than to ideas about fixed attributes or qualities. Like any identity, expertise relies on confirmation from the Other, and herein lies the anxiety; without perfection the potential to be undermined is omnipresent.

How can we understand this attachment to a preoccupation with perfection or obtaining 'right' answers? As the practical consequences of contingency and uncertainty in vets' professional lives has been relatively neglected (see Enticott, 2012; Herriot, 2010), we draw heavily from research regarding parallel practices of medics, where one possibility is to consider how dominant modes of educational training are deeply embedded in the physical and biological sciences. These disciplines are predicated on epistemological beliefs that the material world can only be understood when separated out from human beings, as though each is entirely independent of the other (Barad, 2007).

Much insight may also be gleaned from recent autobiographical confessions of medical surgeons and their iatrogenic mistakes, juxtaposing the certainty of science and the uncertainty of practice (Carmel, 2013; Gawande, 2003), where myths concerning surgery as a 'calm and rational appliance of science' are firmly debunked (Marsh, 2014: 6). Heavy expectations placed on medics by themselves, and their patients, often turn into disappointment and doubt, since the 'sheer complexity' of medicine, and limitations regarding 'the profession's understanding' (Dawson, 2009: 102) remain opaque, despite attempts to demystify medical practice: 'We look for medicine to be an orderly field of knowledge and procedure but it is not. It is an imperfect science, and enterprise of constantly changing, uncertain information, fallible individuals, and . . . lives on the line' (Gawande, 2003: 4).

This view of medicine echoes a broader critique that 'the "canonical model" of science has never been able to coincide with the practice itself' (Collins and Evans, 2007: 1), so these struggles are both inevitable and inescapable because any pursuit of predictable certainty is inherently flawed (Miller, 2005). In our analysis, we draw on these ideas to illustrate how individuals find it difficult to disentangle the limitations of science from their own performance, or acknowledge how science is 'always too fragile . . . too pure' because its strength resembles 'glass – hard and rigid but vulnerable to a single dislocation – and cracks are always appearing' (Collins and Evans, 2007: 9). Research has suggested that the embedded nature of objective knowledge in training has consequences for students of (human) medicine in practice, which we believe is replicated in vets: '[P]ractically and pedagogically, there is evidently some difficulty experienced by trainee doctors in applying scientific biomedical knowledge (as learned at medical school) to clinical practice' (Carmel, 2013: 732).

Interestingly, Delamont and Atkinson (2001: 88) claim that 'the pedagogic practices of undergraduate science are in themselves potent devices for the mobilization of students' trust in the methods and outcome of scientific investigation' that can never materialize in practice. Relatedly, Berg (1997: 1081) suggests that protocols, those instructions that tell 'medical personnel to do A in situation B . . . through a sequence of steps' are 'ambivalent endeavours', for they promise to 'smooth out' any, and all medical variation, purporting to bring order to 'those practices where messiness reigns' (1997: 1083, 1087). Of course, attempts to reduce medical practice to a set of standardized protocols, using linear rational procedures helps to legitimize knowledge and 'recreate medicine as a science' (Berg, 1995, 1997; Carmel, 2013).

Despite good intentions, this reconceptualization of medicinal *practice* as a scientific process through the application of protocols and other techniques has resulted in problematic consequences (Berg, 1997; Carmel, 2013), mostly because their ideological

(rational-scientific) nature means they can never be realized in practice (Carmel, 2013). We argue that these explanations transcend 'tired old' discussions about medicine in binary terms as either art *or* science (Enticott, 2012), and are highly pertinent for our study of veterinary surgeons. First, protocols exacerbate the tendencies to view patients and their 'trajectories as a sequence of individual, formally rational decisions' (Berg, 1997: 1082), a recipe book or guide that eschews the 'continual popping up of practical contingencies' requiring an improvised response. Second, these seemingly simple linear rational steps point to predictable certain outcomes that appear to reconstitute medicine as a practice 'tied to *individual* limitations and failures', eclipsing or obfuscating any '*institutional* shortcomings and contradictions' (Berg, 1997: 1083, original emphasis). In other words, contemporary neoliberal demands may enable institutions to neatly side-step responsibility about their *organization* of work, by passing it down the line. Third, protocols come to form a particular regime of truth inviting both practitioners and patients to succumb to the 'widespread *illusion of the single answer*' (1997: 1083, original emphasis), and one peddled by those who 'have [a] stake in throwing sand in our eyes . . . to persuade' us that one's very own 'manufactured knowledge is . . . a desired form of very objective power' (Haraway, 2003: 22–23). Unsurprisingly, answers may prove elusive when grounded in ideas of a singular optimal solution, often rendering their experience one of 'practical failure', very different from what has been promised: '[S]tudent accounts of initial socialization thus reflect a potential source of anxiety, in that the world of practical science is no longer experienced as stable and predictably manageable' (Delamont and Atkinson, 2001: 90).

In summary, like other professions based on scientific or technical expertise, veterinary work involves a clash, where positivist epistemologies and objectivist ontologies confront the application of knowledge in everyday practices, and where decisions have to be made 'on the hoof', within numerous constraints, such as those of the paying client as well as the limitations of science itself (Berg, 1997; Enticott, 2012). In common with other forms of scientific training 'the uncertainties' and 'tacit knowledge required' to make decision are 'not discussed' (Delamont and Atkinson, 2001), and neither are the ways that students within these professions may need to supplement and adapt their training, which has been grounded in 'the straightforward application of established laws, principles and facts' (Handal et al., 1990: 324). Perhaps then it is not surprising that only 34% of vets stated that their degree prepared them 'very well for the work they wanted to do' (Williams and Jordan, 2015).

Methods

By witnessing and discussing the everyday, mundane peculiarities of vets' working lives, this research sought to develop an ethnographic understanding of the culture, controls and problems (Tracy, 2013) arising from veterinary work. In veterinary practice, ethnographies are rare but highly appropriate for understanding how cultural practices are performed, enacted and organized, while also providing 'the potential to acknowledge other-than-human life and to advocate for its inclusion in social science studies' (Hamilton and Taylor, 2017: 15). Most, though not all research with vets has taken the form of quantification, where 'statistical investigation grasps the material of these practices, but not their *form*'

(De Certeau, 1984: xviii). By contrast, alongside intensive interviews, we combined observations and general lurking to explore what vets get up to during quotidian routines and practices, including how pervasive are their tensions, conflicts and ambiguities.

Data collection

The study comprised two stages: Stage 1 – a pilot study comprising 12 interviews and observations carried out in January 2013. Stage 2 followed from April 2013 to September 2014 with a more substantial observation and interview programme with a final count of 75 interviews of around one hour with vets of varied experience, stratified to ensure representation of the three main types of vets: Small Animal (household pets), Large Animals (farm stock) and Equine (horses owned for leisure or sport), as well as early career vets through to partners/directors. Access was partly negotiated through an anonymous group of vets,[6] with a written invitation sent by email to practices throughout the UK. From the 12 practices that responded there were 39 males and 36 females with an age range from 25 to 63; a fairly typical representation.

We sought to understand how veterinary surgeons experienced their working lives through watching and talking to them informally during car journeys, in between the consultations we observed, and formally through semi-structured interviews. Despite their ubiquity, interviews are valuable because they go beyond what can be observed and also facilitate more intimate perceptions. Our questions were varied, prompting participants to talk of veterinary work as a passionate vocation: 'can you describe a perfect day at work?'; as well as reflecting on issues widely reported to create anxiety and stress in their profession: 'have you ever considered leaving the profession?'. As part of our immersion, we observed vets during consultations, routine visits and, on occasions, we literally 'entered into the [surgical] theatre of action' alongside them (Wacquant, 2015: 6). In loitering and lurking around staff and waiting rooms, we were able to witness serendipitous events and appreciate vets' relationships with important 'others', such as nurses, clients and, of course, animal patients.

Data analysis

Our methodological approach seeks to avoid mechanistic ways of working (Knights and Clarke, 2017) for we believe that research is much more organic where ideas and data merge and overlap with one another, rarely in a linear logical fashion but rather as a 'messy, iterative, interactive and non-linear' process (Baptiste, 2001: 2). Analysis is a practice like any other that involves embodied engagement, such that separating out discrete elements can be inappropriate, if not impossible; especially *where it renders the relationship between researcher and researched disembodied*. That said, participants' accounts have to be translated into our analytical interpretations, so after transcribing our digitally recorded interviews and field notes, we coded our text in NVivo[7] and analysed the data to 'identify the ways in which dominant meanings emerge from the power-laden nature of organizational contexts' (Grant and Hardy, 2003: 5).

We are reluctant to construct our theoretical ideas as principally grounded only as an outcome of the data (Goulding, 2009) since we believe that significant qualitative

research emanates less from the mere execution of strict 'methodological procedures', and more as a result of 'the unrelenting cultivation of theoretical ideas' (Puddephat et al., 2009: i), derived from a great many sources and not least our own personal academic development. Having observed during fieldwork several examples of participants speaking about 'getting things right', seeking 'perfection' or looking for 'a right answer' to an animal's condition, we became curious and re-examined our transcripts and notes to verify the plausibility of our interpretations. We became particularly interested in those instances where vets drew out any problems or discrepancies in terms of enacting their practices of vetting and made comparisons with their experiences of preparatory training, and found that their routinely reported practices were quite discrepant with the linear rational way in which they were taught at college. We then theorized this phenomenon as 'a faith in the scientific model and epistemological certainty' and looked more broadly at related concepts such as 'expertise', 'doubt', 'competence' and 'failure'.

Whereas representational epistemologies understand words as self-evidently related to the 'objects' to which they refer, we see words as also creating the objects they may merely purport to describe (Latour, 2005), so rather than a benign mechanism, discourses constitute both a condition and consequence of embodied practices (Frank, 1990). Talk, then, has purpose insofar as it cannot stand outside knowledge/power relations, and so it is possible for people to 'emerge more or less expert . . . through the discursive process of [representation]' (Carr, 2010: 23). As stories are not out there 'waiting to be told . . . only . . . yet to be constructed' (Denzin, 1997: 267), we turn now to one possible representations of our fieldwork, presented as follows: first, we illustrate how scientific expertise is frequently 'undone'; second, we explore how expertise can be demonstrated through skillful accomplished performances; and finally, we show how limitations of science can be acknowledged, negotiated and successfully crafted in practice.

(Mis)managing uncertainty: Our findings[8]

Competence undone

> Making mistakes is normal. Repeating mistakes is careless. (Nap, 2009: 29)

Vets spend five years studying at veterinary college, but knowledge is infinite and dynamic, especially in relation to unpredictable organic materialities (Carmel, 2013). Collins and Evans (2008) suggest that contributory expertise is achieved through a *competent performance*, but given the uncertain and unpredictable elements involved in practicing in veterinary or human medicine this is problematic (Berg, 1995). We argue that thinking *exclusively* in terms of how rational-linear and causal scientific models, or protocols, lead to the *achievement* of expertise, form part of the problem, rather than the solution (Gawande, 2014; Marsh, 2014). Veterinary education and training was often criticized in this respect:

> Undergraduate learning is black and white. Come out to the real world and it's just grey. You struggle with things, and as you go through your career you realize that it never really was black and white, just it was easier to digest if it was presented in that way. But, it's a form of stress, certainly for types we select that are slightly prone to perfectionism, it's quite hard to deal with

sometimes. If things don't fit into the way you're told it's going to happen, mentally 'how do you deal with that?' (SAV, 16yrs)

Many participants reported how certainty or what academics may describe as ontological absolutism, combined with notions of competence were inextricably tied to omniscient views of (scientific) knowledge. However, in practice certain techniques were rendered less than helpful in dealing with ambiguities, or in those situations requiring tacit knowledge and an appreciation of local nuances, rather than the application of universal rule (Carmel, 2013; Delamont and Atkinson, 2001):

> [I]t's never black or white but [Vet schools] aren't very good at giving you that realistic picture. (LAV, 8yrs)

> We view ourselves as high achievers, we like to be right, don't we? I don't like being wrong. When it doesn't go well, you see it as a mini failure, don't you? (EV, 19yrs)

Here, while displaying elements of self-doubt, the participant reflects and reproduces discourses of omniscience, omnipotence, and a reification of objective reality. In her terms, the world is divided into dualistic representations of right and wrong, notions that are partly rooted in subjects that privilege 'fact' based solutions; precisely those that vets must excel in, so that they may enter and succeed in vet school: 'I like numbers; I love the notion of doing an exam where there is a right or wrong answer. Vets always want to solve the puzzles and need the answers' (SAV, 18yrs**)**.

Larson (1979: 61) states that 'in childhood . . . science is presented as the measure of objective truth', but some vets report a continuation of this experience in vet school (Berg, 1997). So, when images of the world fail to coincide with everyday experience, rather than challenge their ontological presumptions of a reality where 'correct' solutions to problems always exist, participants tended to turn in on themselves in distressing ways and question their own competence:

> I came out from vet school anticipating that everything should always go right, and when things went wrong it was very traumatic. (LAV, 6yrs)

> There are good spells; everything works. Then a few where you doubt yourself. 'Is it that I'm not good enough to find out what's wrong with this animal and fix it?' (EV, 5yrs)

Such concerns may also partly reflect and reproduce hegemonic notions of neoliberalism, where individual success can become narcissistic, or conversely, failure means 'I am not good enough' (Sennett, 1998: 118):

> [A]t vet school, they come to realise other people in the world are perhaps equally as fantastic . . . never failed at anything. Yet, the first dog that dies, they view it as a failure. Absolutely I think that's a real problem. (SAP, 28yrs)

These ideas about the world and insecurities can themselves fuel misplaced quests for omniscience, certainty and occasionally even omnipotence:

I know things can't be perfect, but . . . you just don't want things to go wrong. When they do you're still hard on yourself even though you know, *I suppose*, that they can go wrong. A real conflict; it's probably the root of everything. (SAV, 6yrs)

[I]t's very frustrating the amount of uncertainty that we've got, and it would be nice to be *more right*. I think the biggest problem we have is that we make educated guesses 99% of the time . . . the more you read and do these advanced qualifications, the more you realise *how hopelessly limited we are*. (EV, 8yrs)

Quotes such as these illustrate how some veterinary surgeons still view competence as being predicated on ideas of certainty; a yearning to be 'more right'. As part of its appeal, science offers a 'refuge from uncertainty' (Gray, 2002: 19), but this participant recognizes how this promise (Berg, 1997) can never be fulfilled, even by taking 'advanced qualifications'. This is of course a form of knowledge or wisdom itself, reminiscent of the Socratic declaration 'I know only one thing; that I know nothing' (Plato). However, eight years in practice has not yet persuaded these vets that clinical knowledge can never be a safeguard against 'practical failures' (Delamont and Atkinson, 2001), such as the vagaries of no/misdiagnosis, or accepting unexplained outcomes: 'If there has been a complication that we can't fix that is a massive kick in the teeth, that is just awful, we probably beat ourselves up more than the client would beat us up for that' (SAV 3yrs). As our title intends to convey, vetting is never an exact science, so all decisions always constitute a leap of faith (Derrida, 1995), without guarantee. Nevertheless, vets often seemed to ignore the limitations of medicine (Carmel, 2013), by colluding with clients' expectations of predictability. One consequence of this is where the '*stress of not knowing what is going on*' (SAV, 15yrs), coupled with responsibility for life/death decisions, is experienced as burdensome: '[Y]ou're always doubting yourself' (EV, 5yrs); 'I feel a bit adrift. I don't feel as though I'm particularly good at anything' (SAV, 30yrs).

Participants strived to 'find ways of getting validation for intellectual competence' (Clance and Imes, 1978: 243) intimately linked with ideals of securing themselves through 'having' expertise, but this very desire for security can engender further, and more extreme insecurities:

I continuously need approval, need to be rewarded, being told I'm doing a good job. And, I seek reinforcement of that. (EP, 25yrs)
Some vets slip into cycles of worry and self-doubt. That's a real problem in a profession with access to drugs you can very easily kill yourself with. (SAV, 30yrs)

As we have seen, some vets report extreme discomfort with conditions of 'perpetual uncertainty' (Carmel, 2013) surrounding medical practice, which can provide a fertile ground for ruminations and mental post-mortems, especially in terms of iatrogenic mistakes: 'Lying awake at night, questioning, going through things again and again' (LAV, 6yrs); 'I've made many, many cock-ups and [occasionally] something died because of it. It's painful even now to remember' (LAV, 31yrs).

Not surprisingly fallibility was a hard lesson and one that illustrated veterinary surgeons' desire for 'socially prescribed perfectionism' (Bartram and Baldwin, 2010: 391):

> I still remember, a couple of animals that died because I took too long with the surgery. (SAV, 17yrs)

> It was my own mistake. It was bravado. The cat deceased for a reason unknown to me. I know now what I did wrong, but it was very very shocking. (SAV, 9yrs)

Shupe (2005) characterizes stressful work as an over-attachment to 'outcomes' combined with high levels of ambiguity and uncertainty (Mellanby and Herrtage, 2004). This may partly explain why many vets reported bouts of depression and stress, and how subscribing to 'perfection can turn tragic' (Hyde, 2010: 6):

> [W]hen you can't do the job perfectly, it does really get you down. I can understand why people might commit suicide. (Field Obs, SAV, 5yrs)

> One girl committed suicide quite soon after we qualified. I think it's probably the nature of the person who become vets: very high expectations . . . wanting everything to be perfect. And of course, it isn't. (LAP, 43yrs)

Some vets tended towards perfectionism to assert control over themselves and their 'surroundings' in an attempt to 'get rid of the possibility of mistakes' (Watts, 1989: 41):

> The vet nurse enters: 'Mrs X says Poppy's no better, in fact she's worse; she's coming back in.' Brian looks perturbed 'an incorrect diagnosis is the worst news. These things are trial and error, but it reflects badly on me.' (Author 1, Field Obs, SA practice)

Clearly, attempts to eradicate error, or find individual solutions to social or systemic problems (Bauman, 1995), can never be other than futile, but when coupled with idealised notions of expertise, the conditions of possibility for doubt become firmly established. We now turn to our findings concerning client–vet encounters, which have the potential to reinforce impossible demands and expectations placed on vets, both by themselves and others.

Competence as accomplished performance

> Once you have graduated from veterinary school, your education just begins. (Nap, 2009: 13)

This section focuses on matters of 'interactional expertise'; the 'tacit knowledge-laden expertise . . . acquired through enculturation' (Collins and Evans, 2007: 69), which for vets means the ability to 'talk the talk' in the consultation room, translate knowledge effectively, and also to reflect on 'service' encounters. Life as a veterinary surgeon involves a broad skill set, and clinical expertise with animals represents only one part of this. Participants voiced fears and anxieties about being found `lacking' in one (or several) respects of their own (and others) idealized views of what being a vet meant in practice (Knights and Clarke, 2014). Romanticized accounts of life as a vet may be partly to blame, with many citing Herriot or Rolf Harris as an initial inspiration, albeit perhaps more of a favourable representation when compared to practice. Such images could persist, as indicated by this story of a final year student:

[H]er vision was 'I'm going to help "Misty" and "Molly" . . . drive a land rover, be a mini James Herriot'. A lot go to vet school for prestige, and have no clue about what this job entails . . . . She's definitely going to have a shocking experience when she's in a practice. (SAV, 12yrs)

Part of that shock relates to the level of demands and expectations of clients (Hansez et al., 2008), for a significant source of stress occurs where performance must be skilfully accomplished, persuasive and often has to privilege clients over animal patients. This is perhaps because 'telling people what they want to hear is precisely what experts do well' (Carr, 2010: 26): '[I]t's a real service industry; you have to keep people happy an awful lot' (EV, 9yrs); '[A] cynic would say your job is to keep the client happy, regardless of whether the 'thing' is getting better or not' (SAV, 15yrs). Referring to the animal as a 'thing' could be interpreted as odd given how most vets declared a 'love of animals' in justifying career choice, but it may also be an indication of the extent to which client–vet relations, rather than client–patient relations, have become paramount. This form of 'interactional expertise' was, vets reported, intensive and mainly confined to learning 'on the job': 'The first five years, [it's] relentless . . . like a second university. A second training course, dealing with people' (LAP, 19yrs). The inference here is that veterinary college tends not to equip vets quite as well with the social and political skills required for human–client interaction:

[W]e were essentially just taught clinical skills – that was all we were taught . . . we weren't taught anything at all about dealing with clients, or other people . . . suddenly you're thrown out into the real world and it's a hell of a shock. (SAV, 32yrs)

The word 'shock' was used many times to describe the experience of practicing veterinary medicine, in comparison with the form of learning at vet school (Delamont and Atkinson, 2001). Recently, graduates have received more 'communication skills' training at vet school, but the political aspect of client–vet relations is still reported as difficult to manage; for example, ethical conflicts (Batchelor and McKeegan, 2012) over financial hardship or convenience euthanasia. Relatedly, many vets spoke of the need to be constantly attentive to clients to ensure a smooth encounter, and to be recognized as experts (Treem and Leonardi, 2016): 'I actually look on coming into work sometimes as like you're acting, a certain act for certain people' (SAV, 18yrs). 'No matter how you feel, the show must go on. You have to go out smiling' (SAV, 22yrs).

In common with service workers such as sales persons, competence means you are only as good as your last consultation, so the effects '*can be quite wearing, like you're always on stage*' (LAV, 11yrs). Over time, for a variety of reasons, the practice of interactional expertise remains imperfect:

As your confidence builds up, you might rub people the wrong way for a different reason. Because you're over-confident or didn't listen. (LAP, 25yrs)

Skills of relating and dealing with people come with age . . . but I always think, you could do better at the old social skills. Even after 30 years of doing it. (EV, 30yrs)

The imperative to perform reflects the way in which veterinary surgeons, like medics, metamorphose into service providers, where enactments of 'expertise may involve *talking to*, even more than it entails *talking about*' (Carr, 2010: 23): '[T]he expectation of what's achievable has gone up. Individual respect for vets I think has gone down' (SAP, 22yrs).

There was some recognition that accomplished performances focus on attachments to beliefs in predictability and calculability, learning how 'to communicate' from an 'authoritative angle' (Carr, 2010: 19) by assuming a cloak of competence (Haas and Shaffir, 1977): 'Farmers like certainty. You never display your thought processes in front of them, even when you are unsure' (LAV, 21yrs). 'You have to be quite secure in your knowledge' (SAV, 6yrs).

Arguably, skilful performances may be more important than clinical knowledge, enabling 'the expert's competence [to be] transmuted into social authority' (De Certeau, 1984: 77). Regardless of clinical skill, these performances rooted in culture/language appear credible for 'individuals may or may not possess expertise independently of whether others think they possess expertise' (Collins and Evans, 2007: 3). However, peers are not so easily persuaded by social skills alone:

> I've seen some really bad vets, people love them . . . but people can't tell, they just like the way that [s/he] interacts. If they've got that, you really don't need to be any good at treating, or diagnosing anything. (SAP, 35yrs)

This resonates with the claim that 'most people do not know what expertise looks like' (Treem and Leonardi, 2016: 2). In contrast, a failure by the vet to convince, even where clinical expertise is present, may create the conditions for doubt and insecurities about the ability to practice:

> Breeders I find the worst pressure. I perform worse when they look and think, 'oh, he's a young chap, he doesn't know what he's doing'. It makes me falter. (EV, 6yrs)

> [O]n a particularly bad day you worry about word-of-mouth, and others' perceptions of you 'are they right? Am I crap? Should I be doing this?' (LAV, 11yrs)

Vets reported additional pressures from 'pseudo knowledge' gained through the internet, and parallels may be drawn with those 'expert patients' who visit GPs, 'empowered' to challenge the expertise of those whose advice they seek (Fox et al., 2005): 'Just more questioning of everything, people are more likely to go and ask for a second opinion and look on the Internet' (SAP, 24yrs). For vets, 'Dr. Google' comprises ubiquitous tacit knowledge, originating from 'popular' understandings or 'primary sources', which tend to produce 'brutal simplifications of what are deeply complex scientific matters' (Collins and Evans, 2007: 19–21): 'Google's a nightmare for us, people will say, "oh but I read on the internet"' (EV, 8yrs); 'The biggest challenge right now is "Dr. Google". He causes a lot of problems' (SAV, 27yrs). However, 'knowledgeable patients' (Prior, 2003) challenge hierarchical and elitist assumptions that laypersons are disinterested, unaware, or ignorant, while also dismantling

exclusivity formed at the intersection of power and knowledge (Larson, 1979). Conversely, different pressures occur where clients bestow magical healing powers on vets, or expectations that they have the ability to grant immortality to their animals, where treatment will follow a linear path in restoring or maintaining health: 'Vets in general are put under quite a bit of pressure to deliver . . . if the animal doesn't get better there is a slight blame culture' (EV, 17yrs). However, some vets colluded with these illusions of omnipotence, so when combined with a desire to satisfy and be liked, vetting could be experienced as pressurized and toxic: 'I suffer with depression, you're desperate to please people. When you don't, you feel bad. You're also a high achiever, very hard to sustain in a high-pressured job' (SAV, 15yrs).

Here, rather than viewing ideals of omnipotence and omniscience as unachievable distortions, she turns the inability to satisfy clients back onto herself as a failure; a departure from perfect achievement. It has been argued that managerial ideologies 'shift control to commitment by exploiting employees' desires for perfection, wholeness and validation' (Ekman, 2013: 1163), so these concerns simply become attempts to secure the self: '[T]hough I rationalise it as needing the approval of others, what it really comes down to is approving of yourself' (EP, 27yrs).

Our final data section focuses on nuanced data to illustrate how our participants struggled to know whether they had 'mastered' the art, or craft, of vetting. We also explore how discourses of control and certainty are embedded in power-knowledge relations, while their effects are never totalizing.

The art of imperfection

We have argued that concerns with positivistic epistemologies, absolute ontologies, client negotiations, and a preoccupation with ideals of expertise contribute to feelings of failure and insecurity among vets. Relatedly, our data suggests how such problems may be exacerbated by most vets' inability to determine whether they have 'mastered' their craft. Other than an *absence* of client/practice complaints, animal recovery was one potential source of validation: 'If you cure something or operate on it, it's a success, that's one way' (SAV, 26yrs). However, using this outcome as a barometer for competence was said to be problematic, for not all animals recover, a realization that was articulated, at least from an intellectual perspective: 'You can't go by your success rate, can you?' (LAV, 11yrs); 'You might sometimes do the right treatment option, but it may not necessarily work for that particular animal. Or . . . the client hasn't followed the instructions' (EV, 3yrs). Here, the vet deploys similar criticisms against 'functional' linear-rational models of expertise concerning, 'whether the quality of expert intervention can be judged by evaluating the result' (Berg, 1995; Dingwall and Lewis, 1983: 42). One reason that newly-minted graduates exit the profession early is reportedly a lack of support and feedback (Routly et al., 2002) when events 'go wrong', but experience can appear to mitigate these effects:

> It's been a shock to the system since qualifying four years ago, getting used to the reality of the job. You grow in confidence; the more experience you have, the more competent you become. (LAV, 4yrs)

Experience tells you that what you're doing is fine, and some animals get better, and some don't, I guess. (SAP, 26yrs)

However, returning to our title, mitigation is not eradication so it would be a simplification to suggest that practice really does make perfect, when it is clearly not always the case: 'I find it immensely distressing, putting animals to sleep, still. I don't think I've become hardened to it. Quite the opposite' (SAV, 21yrs).

Like any profession, it would be disingenuous to suggest that vets are homogenous, or that all participants sought perfection or 'right' answers. A few articulated clearly how illusions of a single answer or 'objective truth' (Berg, 1995) were in practice, unhelpful fictions:

[V]ery rarely is there a single solitary route forward with a clinical case . . . you try one thing first and if it doesn't respond, try something else. (EP, 16yrs)

You know, there are more questions out there than answers . . . it's the nature of our job to deal with uncertainties. (LAP, 20yrs)

With experience, some vets were more sanguine about uncertainty and ambiguity, harnessing it positively to develop and refine their practice, rather than resorting to 'gendered' conceptions of expertise that focus on control and strength (Azocar and Ferree, 2015):

The moment I stop experiencing doubt is when I'm not effective. I need to be very truthful with myself . . . consider changing what [I'm] doing. (SAV, 15yrs)

I don't think doubt ever disappears. I hope doubt never disappears because you should never presume. (SAP, 24yrs)

These participants spoke of expertise as a dynamic, temporary and negotiated process requiring constant work 'to maintain [its] status' (Carr, 2010: 21). However, others treated knowledge as something to 'monopolize' (Reed, 1996: 575), and expertise as a 'finished' possession:

The client's exact words were 'there's no science behind you seeing my animal every three months for checking it over, just to give it more medication. I can do it myself.' So I said, 'O.K., so you bring me down to just prescribing the medication for you. I'm nobody then.' (SAV, 9yrs)

Here, the client fails to provide necessary confirmation for the vet being a scientific 'expert', by undermining both the esoteric (Wilensky, 1964) and exclusive (Friedson, 1964) nature of her knowledge. Since the monopolization of expertise/knowledge is a prerequisite for any profession (Haug, 1975), the client's challenge transforms veterinary work into a series of unskilled tasks, provoking insecurities (Owens, 2015). However, not all vets were attached to knowledge in this way, for experience taught them that competence was more about '*mastering the art*' or craft of practice, rather than living up to illusory ideals of science: 'If clients are coming back and asking to see you again they

perceive you as a good vet. It's because you've mastered the *art*, if not the science' (SAV, 30yrs).

This next participant also readily exposes 'the aura of mystery' about vetting, while also dismantling some of the myths around its effectiveness (Haug, 1975): '75% of animals will get better on their own, or despite what you do' (MAV, 25yrs). Still, very few of our vets acknowledged these limitations, but some did resist the 'narcissistic pleasure' derived from notions of 'competence and accomplishment' (Roberts, 2005: 624), in relation to both themselves and their profession. In removing the mask of 'glory', we argue that they became both vulnerable and capable (Deslandes, 2012; Marsh, 2014):

> I've come to realise more and more the limitations of what we do. No matter how much we convince ourselves that it's us, our magic treatment, would it have got better anyway? Well, probably. So, it's important not to overplay our role, the percentage of cases where we actually alter the outcome, is small. (EV, 9yrs)

In summary, our data suggest that while practice does *not* make perfect, experience may bring greater realization that imperfection need not be viewed as either pathological, or a failure of expertise. For perfection is 'both a benefit and a burden, life fulfilling and life threatening' (Hyde, 2010: 4), but to take its constant attainment seriously such that our well-being depends on it, is to be exposed to the danger of 'becoming our own worst enemy' (p. 6). That said, we do not dismiss the value of scientific knowledge and clinical skills in veterinary practice for there is an equal danger to ourselves, and others, in becoming 'rotten with imperfection' (p. 4), or slapdash, as our data also illustrated.

Drawing from Carmel, we argue that like medicine, vetting resembles more craft than art or science for it involves 'skilled interaction with the material world' (2013: 734), requiring two sets of skills: 'using (applying) different kinds of knowledge and practical action' (2013: 731). As such, any rigid devotion to scientific principles of calculability and predictability are merely traps, and ideals of an illusory nature (Berg, 1997), since expertise-in-practice can only ever comprise transitory and temporary enactments, based on the imperfections of applied knowledge in a unique situation.

Precarity at work: Towards a theoretical understanding

We posed the question as to whether vetting is a craft that must be learned owing to the limitations of scientific discipline, or if it is simply a question of practice making perfect. Our findings illustrated how the 'canonical model' of science does 'not coincide with the practice itself' (Collins and Evans, 2007: 1), so like medicine (Berg, 1997; Carmel, 2013) vetting cannot be viewed as a purely scientific endeavour, but rather it is enacted in ways that reflect hybridity (Latour, 2003). Like Enticott (2012), our study shows how vetting is a work in progress, a craft involving 'skilled interaction with the material world' (Carmel, 2013: 734), where plans can, and must, be altered as 'difficulties arise'. Rather than being interpreted as 'a threat to the latent scientific character of medical practice' or personal failure, this merely reflects how vetting is a form of 'situated work' (Berg, 1997: 1084). In crafting their practice, vets will inevitably experience episodes of 'practical

failure', but if recognized as part and parcel of a contingent world, combined with theo-retical techniques of training that cannot deliver on their promise of certainty and pre-dictability (Berg, 1995, 1997), these need not automatically form the conditions for doubt and insecurities.

In the absence of empirical, qualitative and ethnographic studies of vets (see Enticott, 2012; Hamilton and Taylor, 2017), we have drawn heavily from those illuminating accounts of the medical profession (Berg, 1995, 1997; Carmel, 2013; Gawande, 2003, 2014; Marsh, 2014), from which we can draw many parallels. These literatures have sought to challenge the erasure, and sometimes deliberate omission (Delamont and Atkinson, 2001), from narrower functionalist discourses of expertise, particularly those deployed in undergraduate training schools, where difficulties and uncertainties encoun-tered later in practice often result in a sense of 'reality shock' (2001: 104). Our findings show a great deal of resonance with these studies, for these beliefs, partly rooted in onto-logical and epistemological training, and discursively crafted to organize expertise, ren-dered many vulnerable once in practice, particularly in that transition from graduation to 'real world requirements of service delivery' (Haug, 1975: 203).

Our participants frequently described their transitional experiences as 'shocking', yet our analysis showed that time did not extinguish many of these difficulties and uncertain-ties, even if they were sometimes mitigated. This finding partly undermines Haraway's argument that only non-scientists believe in 'ideological doctrines of disembodied scien-tific objectivity – enshrined in elementary textbooks' (2003: 26). While some vets did acknowledge the limited, 'trial and error' nature of their practice, there was a tendency for them to ignore, or fail to recognize, evidence that undermines or questions their epis-temological and ontological assumptions. We argue that this is partly because it lies outside the interpretive paradigm of many vets, so even when vets express reservations about the rigidity of the scientific model, and its failure to recognize the random nature of many treatment outcomes, most cannot set aside their perfectionism and the *possibil-ity* of there being one correct solution to a problem (Berg, 1997).

Although we acknowledge how doubt and insecurity are pervasive both inside and outside of work, vets seem to suffer more than their fair share of anxieties. Many vets, regardless of age, or where they were trained, expressed feelings of not being fully prepared for what transpired in practice. In matters relating to perfection this leads us to conclude that their experience and response to veterinary training does not disavow them of an attachment to positivism, and perfect solutions, such that they become entangled with notions of expertise. So, in managing the ethical, political and profes-sional dilemmas they face every day (Batchelor and McKeegan, 2012, 2015), the departure from well-rehearsed rational-scientific models predicated largely on 'a logic that suppresses the possibility of failure' (Deslandes, 2016: 20; see also Berg, 1997), renders professional veterinary work problematic, for they frequently project any shortfall in outcomes back on themselves. Arguably these ideals may be both a product of the comparatively elite process of entry to the profession, and the omnipotence that seems to derive from the certainty conveyed by positivist epistemologies and objectiv-ist ontologies within veterinary pedagogy, which may not always concede that 'striv-ing to eliminate variation in the name of Rational Medicine is a useless enterprise' (Berg, 1997: 1084).

Despite being frequently subject to challenge in everyday practice, we argue that science has legitimately secured a distinct place in the order of knowledge, apparently unfettered by more interpretive paradigms reflecting the precariousness of lived 'socio-material practices' (Mol, 2002: 7). Although understandable that vets would want to deny ontological insecurity, to do so is self-defeating insofar as it is part of the human condition (Knights and Clarke, 2014). While knowledge and expertise might be seen at the common-sense level to relieve insecurity, its ontological nature means it cannot deliver on this expectation, so it is precisely this undeterred faith in knowledge and expertise to provide perfect solutions that render us trapped in this cycle, for they evoke the very uncertainties they claim to resolve.

In relation to what counts as knowledge in veterinary practice, we found many aspects of Collins and Evans' framework helpful, in particular their claim that 'there are many different ways of being an expert' (2007: 4). This was especially illuminating in terms of differentiating between 'contributory' and 'interactional' expertise, and the 'primary source' knowledge that clients draw from during consultations. We also agree that 'interactional expertise', or the ability to talk the talk, can create the *appearance* of expertise without the substance, for some vets excelled at 'successful' performance without necessarily demonstrating clinical competence, endorsing suggestions that 'the more confident [people] are in proclaiming their expertise, the more likely we are to believe them' (Treem and Leonardi, 2016: 4). In contradistinction, other vets appeared less than credible when beset by situations of indeterminacy, despite good clinical skills, because their contributory expertise was lost in translation. It is clear that on their own, those clinical skills purporting to underpin discourses of expertise were insufficient, because being 'recognized publicly' also requires experts to 'act the part' (Lambek, 1993: 87). While social skills are clearly necessary, many of our vets reported how their training elevated the linear rational scientific model and so by default, marginalized the non-clinical, which helps us understand why our participants often complained that veterinary education tends to reduce complex matters to 'black and white' explanations, or eschews the political nature of client–vet relations (Delamont and Atkinson, 2001). While we agree with Hamilton and Taylor's assertion that 'veterinarians remain in a precarious position owing to their own training' (pp. 160–161), we think it is not just because it 'leaves them emotionally distant from clients', but also because we are all 'inherently fallible', so we must resist the illusory 'lures of perfection and wholeness [that are] offered by work" (Ekman, 2013: 6).

We disagree with Collins and Evans' tendency to treat expertise and competence as permanent acquisitions, like personal property, rather than a precarious process of enactments, requiring constant endeavour. In interpreting our findings, we regard this as a significant shortcoming, since it was precisely the insecurities of not living up to idealized conceptions of 'achieving' competence and expertise that were the most pressing concerns raised by participants. Such disembodied conceptions of expertise (Collins and Evans, 2008), obfuscate the contingent nature of the world (Knights and Clarke, 2014), and tend to redefine medical problems as being 'tied to *individual* limitations and failures' (Berg, 1997: 1083). In contrast, we follow Carr's (2015: 265) view that 'any one actor's intentions have little to do with whatever actually happens, since action is always necessarily a product of a system of interaction'.

We are equally critical of the way that expertise is often deployed in ways that indicate a form of neutrality, requiring little need for interrogation, while neglecting the 'inescapably ideological' constructions that lie in 'the evolving hierarchies of value that legitimate particular ways of knowing' (Carr, 2010: 17). This is obviously part of the way that professions claim elitism, through the organisation, legitimisation and 'essentialization of [their] expert enactments' (Carr, 2010: 17), and yet, certificates qualifications and even advanced credentials from the RCVS were insufficient to eradicate doubt in vets, once their 'expertise' was called into question. This reminds us that vetting is far more complex and fragile in practice than textbooks and higher education can ever convey, because practical contingencies persistently `pop up' (Berg, 1997: 1083), ensuring that any grasp of certainty remains `slippery' and seemingly perpetually out of reach.

We suggest that it is precisely the recognition and admission of such vulnerabilities, that could lead to the dissipation of self-aggrandizing power-knowledge relations that are so firmly embedded within notions of expertise, alongside misplaced desires for security that only ever leave us even more insecure (Watts, 1989). Perhaps these contingent and precarious aspects of practice are largely set aside when taught as a grounding for professionals, so long as they are not exposed by philosophical and ethical reflections, for the unquestioned 'appeal' of science (Verrinder and Phillips, 2014) implies 'a body of truths that exist independently of any other truth or knowledge' (Cohn, 1987: 712). Despite being highly pertinent, matters of a complex nature may be silenced, bolstering those regimes of 'truth' (Berg, 1995, 1997) that are so productive in rendering vets vulnerable to doubt and feelings of failure, when their practices fall short of their ideals (Mellanby and Herrtage, 2004). Although they 'constantly run the risk of a decisive failure' (Bouilloud, in Deslandes, 2016), vets seem unable to abandon their quest for perfection, despite it being based on erroneous beliefs that uncertainty can be eradicated. As we have seen, such practices manifest themselves in the profession through high exit rates, a propensity for self-blame, tendencies towards anxiety, insecurity, mental illness and suicide.

Finally, we might suggest that many problems raised in this study are fuelled by neoliberal assumptions whereby organizations are able to pass responsibilities down the hierarchy (Newton, 1995) eschewing their own 'institutional shortcomings and contradictions' (Berg, 1997: 1083). This results in individual subordinates being held responsible for organizational outcomes, where any failure to deliver on imposed demands is at best perceived as weakness, a lack of resilience, or worst, demonized and pathologized. Yet in their relentless desire to establish and maintain expertise, the vets in our study displayed virtually no self-awareness of this problem, or how it invokes a constant source of guilt about being inadequate (Berg, 1997). The combination of individualization and the need to compete on service, so characteristic of neoliberal regimes, pushes vets to continually strive for perfection, while ensuring that they will never be quite 'good enough' to feel competent and secure (Ten Bos and Rhodes, 2003: 420). Only by treating their work as neither wholly scientifically clinical nor as artistically transformative can they craft their practices to accomplish adequate performances.

Conclusion

Our focus on expertise has been restricted to how vets, and perhaps other professionals (e.g. surgeons as reported in various studies), always have self-doubt and are therefore

vulnerable to exposure for not delivering on the expectations clients have of them. This frequently translates into self-regulatory attempts to 'attain' mythical perfection in their expertise. While extensive literature on expertise includes 'imposters' who *pretend* to have credentials and pass themselves off in this manner for many years, there is little interrogation of those who *have* both credentials and the ability to practice, but constantly experience doubt over decisions. We see this affective component as fundamental, and potentially beneficial to the field of expertise, where professionals experience problems not just in persuading their audience of their competence, but also in persuading *themselves*.

Part of the problem is the professional attachment to expertise as a source of identity that renders them vulnerable to the unrealistic demands placed on them by clients and others. Only if they were able to challenge identity and its preoccupation with illusory expectations of order, stability, certainty and predictability (Knights and Clarke, 2017), could this vulnerability to ever inflating demands be relieved. One escape from this burden is to distance themselves emotionally, so as to treat their work as merely technical, such that failure results in an unreflected move on to the next case, for 'so much of what happens in an operating theatre remains impersonal, which is perhaps best when operating on those who may not survive' (Westaby, 2017: Chap 5, Loc. 749). One difference between medical and veterinary surgeons is that it is more difficult for vets to distance themselves insofar as they have to mediate through the animal owner, whereas except where medical patients are children, unconscious, or suffering from mental impairments, the surgeon can bypass the relatives, thus avoiding much human engagement until after the final outcome.

This reflects a quite widespread common-sense view that is not contradicted in vet schools, where experts of all types are expected to display infallibility and particularly around medicine that exhibits a sacred 'alliance of public and profession against the common enemy, "disease"' (Dingwall and Lewis, 1983: 93). Discourses of expertise contribute to forms of aggrandizement that encourage vets to become preoccupied with themselves as potential saviours, but in practice they are pained by the not insignificant number of 'failures', and clients who may seek to challenge their 'expert' status. We suggest that the only way of coming to terms with this, as some of our participants did, is to acknowledge the limitations surrounding themselves and their profession (Berg, 1997). However, this would demand humility, courage and vulnerability in debunking hegemonic notions of 'gendered expertise' that tend to emit a powerful 'aura of masculine rationality' (Azocar and Ferree, 2015: 853), one that is often conflated with strength, infallibility and invulnerability.

An absence of hybridity (Latour, 1993; Miller, 2005) in the training of medics (Marsh, 2014) and veterinary surgeons, among others, poses problems for their craft, for as Gawande has also observed: 'practice, it turned out, did not necessarily make perfect' (2003: 9). Vets are inevitably confronted by the limitations of science when exposed to ambiguities, tensions, unequal power relations and the uncertainties that prevail, but which their practices are expected to eliminate in order to satisfy both clients and themselves. Many participants seemed preoccupied with 'getting it right', and we believe that a large part of what encourages this is an attachment to linear scientific logic, where clinical intervention is expected to have predictable causal effects, and where notions of expertise only serve to reinforce these ideals (Gray, 2002). In contrast, our study illustrates how veterinary work is an arena where 'struggles between law, science, magic, and

medicine play out in improvisational and contingent' ways (Carr, 2010: 23), and where successful outcomes as evidence of 'attaining' expertise are flawed (Berg, 1997; Dingwall and Lewis, 1983).

Moreover, because most literature (excluding anthropological studies) treats expertise as an 'end' that can be secured, even novice graduates might have little reason for doubt until they face the raw experience of daily practice where much can go 'wrong'. Consequently, veterinary graduates are not always well prepared for this shock, but it is precisely their pursuit of security through attachments to the holy grail of 'expertise' that renders them insecure, for their 'necessary fallibility' (Gawande, 2014) can bring shame and guilt (Delamont and Atkinson, 2001). While the only antidote is omniscience, veterinary practice is a fragile and precarious occupation, involving highly unpredictable patients and clients, and subject to unforeseeable contingencies that collide with fantasies of perfection, predictability, and neoliberal masculine assumptions concerning individual responsibility and control. It is difficult to see how even the least sensitive among those in the profession can be immune to the slow, yet inevitable realization that ideas of competence, skill and expertise can only ever be temporary and routinely negotiated, rather than secured.

This analysis has important pedagogical implications for veterinary schools, where expertise could be taught not 'as something one has but something one does' (Carr, 2010:26), and where vulnerability becomes wisdom through the recognition and acceptance of restrictions relating to self, profession and science (Dawson, 2009). Then vetting can be seen as neither art nor science, but like medicine an activity resembling 'a craft in terms of how contingencies are dealt with' (Carmel, 2013: 734), and uncertainties acknowledged, rather than denied. While both the medium and outcome for doubt and insecurity, a combination of ideals of perfection, responsibility and striving for the unattainable has the potential to become excessive and dysfunctional. As we have implied, many others fail to live up to 'over-ambitious norms' of practice, where a tendency to individualize problems conspire to ensure that they 'feel themselves to be failures' (Ford et al., 2008: 175), by interpreting the institutional and philosophical limitations of science as their own (Berg, 1997; Carmel, 2013; Enticott, 2012).

In liquid times (Bauman, 1995), regulatory discipline, routines, and ways of personally advancing 'depend upon the acquisition, mastery, and augmentation of specialist skills over time' (Howard, 2012: 118), pushing individuals back on themselves, as they struggle to find personal solutions to problems that are public in scope and intensity (Berg, 1997). Vets are no more able than any of us to render their world orderly and predictable but perhaps because of knowledge, training, notions of 'attaining' particular forms of (idealized) expertise, and problematic protocols, together with the life and death consequences of 'failure' they feel more troubled by these outcomes. We anticipate that further research of this nature within the professions more widely would enable us to establish the extent to which an *unadulterated* scientific logic can be almost as dangerous as the magic and myth that it displaced.

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Notes

1   All eight of these vet schools are in universities.
2   Veterinary medicine is highly competitive and demands excellent academic achievement both to gain entry to college and secure the degree. See http://www.ed.ac.uk/schools-departments/vet as an example of entry requirements.
3   Doctors by contrast are estimated at around 198,000 (Alpha Research, 2014, quoted in Williams and Jordan, 2015: 4).
4   Iatrogenic refers to conditions in a patient that are directly caused by the diagnosis, manner, or treatment of a medical practitioner.
5   James Herriot (real name James 'Alf' White) was a vet who wrote several semi-autobiographical books about his experiences of practicing as a vet in the Yorkshire Dales. Although partially fictionalized, these stories about animals and their owners were based on actual experiences, the most famous being *All Creatures Great and Small* in 1972.
6   Our central group of vets describe themselves as 'a group of like-minded, independent veterinary owned practices, working together to share experiences, knowledge and skills in order to define and deliver the highest standards of animal health and client care. We did, however, also extend our sample using more informal contacts and means.'
7   Not because of a sense that this would generate proper science but merely to acknowledge that the mind cannot process 'big data' in any way as comprehensively as computer software.
8   Key: E = equine, SA = Small animal, LA = Large animal, M = Mixed, V = Vet, P = Partner, Yrs = years qualified.

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