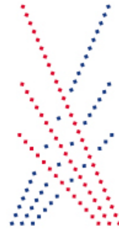

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Track: Identity

Becoming a vet:
The dynamic interplay between self-identity and professional education in professional identity formation among veterinary students

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Abstract

This paper reports on the findings of an exploratory pilot study[1] of professional identity formation (PIF) among veterinary students to gain a better understanding of the interplay between self-identity and professional education / socialization. It examines research participants' accounts through which they explore their emerging and evolving understanding of what it means to be a veterinarian during their programme of study. The study followed three veterinary students over an 18-month period through repeat interviewing to understand how their professional self-understanding develops while moving from the pre-clinical to the clinical phase of their studies as well as through the clinical phase towards graduation. The analysis posits that personal interests, likes and dislikes act as stabilizing identity anchors and that professional education / socialization provide identity resources that inform students' professional identity work.

Key words:

identity work, professional education, professional identity formation, self-identity, sensemaking, social identity

Word count: 7,466 words

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Introduction

Professional identity formation (PIF) is the process by which individuals gain an understanding of who they are as professionals (Slay and Smith, 2011). It is affected by an individual's background, values and motivations for taking up a particular profession and their interaction with other professionals (often in multi-disciplinary teams) as well as relevant stakeholders (such as clients and professional bodies) (Palmér, 2016). PIF is regarded as particularly pertinent in professional training (Reid *et al.*, 2008) as in addition to developing relevant knowledge and skills individuals are socialized into a profession and begin to experience the realities of work in their chosen field. While the different factors affecting PIF have been examined in some detail (see Reissner and Armitage-Chan, 2019 for a summary), the dynamic interplay between students' experiences of professional education / socialization and their sensemaking remains largely understudied.

This study seeks to provide an in-depth and quasi-longitudinal analysis of the identity work underpinning PIF among veterinary students. The veterinary profession is plighted by poor mental health and high attrition (Disillusionment among young vets, 2016; Hume, 2018), which has led veterinary educators to introduce carefully considered curriculum interventions aimed at helping students develop a professional self-understanding through which they can thrive (Armitage-Chan and May, 2018; Cake *et al.*, 2015, 2017). To better understand how veterinary students – as an example of individuals undergoing professional education more generally – engage in PIF, this exploratory study has followed three individuals from a UK university for an 18-month period. In this developmental paper, individuals' emerging and evolving professional self-understanding is examined with a particular emphasis on the stable and grounding elements of self-identity and the more fluid and exploratory elements supported by professional education / socialization.

The analysis indicates that individuals' self-identity acts as *identity anchor*, stabilizing individuals' identity work around who they really are and what really matters to them. Simultaneously, professional education / socialization provide *identity resources* supporting the exploration of individuals' emerging and evolving professional self-understanding as they journey through their programme of study. The findings thus contribute to a better understanding of the dynamic interplay between self-identity and professional education / socialization effected by individuals' sensemaking and identity work.

Theoretical underpinnings

Conceptualizing PIF

Identity comprises of the dynamic interplay between a person's self-understanding (self-identity) and the values, norms and accepted behaviours of his/her social, cultural and professional context (social identity) (Stryker and Burke, 2000). Self-identity is the answer to the question 'who am I', the outcome of individuals' ongoing attempts to develop a meaningful understanding of what makes them who they really are across time. The cognitive process by which self-identity is developed is widely conceptualized as *identity work*, that is 'people being engaged in forming, repairing, maintaining, strengthening or revising the constructions that are productive of a sense of coherence and distinctiveness' (Sveningsson and Alvesson, 2003, p.

1165). Identity work further involves consideration of wider expectations on individuals, such as the prevalent social and cultural norms and, in a professional context, the professional and occupational norms, values and expected behaviours. An example is the Royal College of Veterinary Surgeons[i]' *Day 1 Competences* (RCVS, 2014), comprising sets of knowledge and skills that veterinary students are expected to possess upon graduation and that are systematically developed in veterinary education in preparation for professional practice.

Such an understanding of identity encompassing personal, social and professional elements is widely accepted in the extant literature on professional identity formation (PIF). For example, Palmér (2016, p. 682) has defined PIF as: 'what [professionals] know and/or believe but also who they are, how they view themselves as [professionals], how they relate to [others], how they deal with problems, how they reflect on issues, and how they identify themselves within the profession'. In this definition, PIF is explicitly and simultaneously linked to individuals' self-identity ('who they are' and 'how they view themselves'), social identity ('how they relate to [others]') and professional identification ('how they identify themselves with the profession'), which highlights the complexity of the PIF concept. The extant research on self-identity and professional education / socialization in PIF is discussed next.

Self-identity in PIF

Professional identity is influenced by individuals' personal interests, values and beliefs (Reid *et al.*, 2008), which remain relatively stable over time (Helmich *et al.*, 2017) but must be interpreted within the professional context. For example, Eliot and Turns (2011, p. 631) argue that 'individuals must come to terms with the demands and opportunities of the professional role, weighing these against their own personal interests.' This represents a sense-making process (Weick, 1995), including self-discovery and solidification of personal and professional goals. Personal narratives are written and rewritten as newly found interests and abilities are considered in the context of prior ideas of self-identity. When examining such sensemaking among engineering students, Eliot and Turns (2011) have found that individuals review their personal background and life experiences in the light of professional norms and expectations, which aid greater clarity of who they might be as professionals.

In this context, self-authorship (Baxter Magolda and King, 2004), which refers to people's 'internal capacity to define one's beliefs and social relations' (Evans, 2010, p. 184), has been an influential concept. It seeks to 'explain how people develop their personal identity and become controllers of their destiny' (Nadelson *et al.*, 2017, p. 702). The argument is that when individuals are prompted to explore their personal interests, values and beliefs in the context of their chosen profession, they are able to articulate their personal and professional values and the link between the two (Eliot and Turns, 2011). Such exploration typically leads to greater self-awareness, self-understanding and reflective ability (Rabow *et al.*, 2007), equipped with which individuals can find their place in the profession more easily as they know who they are and what matters to them. Alignment between self-identity and professional self-understanding has been found to improve resilience and wellbeing (Wald, 2015), which is of particular concern among the veterinary profession. There is much that professional education / socialization can do to support such alignment, as discussed next.

Professional education and socialization in PIF

Professional education / socialization has a major role in PIF as students explore 'how they relate to others' in their chosen profession (Palmér, 2016, p. 682). For example, Ibarra (2004, cited in Eliot and Turns, 2011, p. 631) suggests that professional education / socialization offers students three main opportunities to foster their professional self-understanding: (1) engagement with pertinent professional activities as part of professional training or practice, (2) development of professional networks to get access to accepted practice and the latest knowledge and expertise, and (3) sensemaking of what it means to be a professional in one's specific context, often supported by reflective learning. An example in medical education is the notion of *narrative medicine* (Murphy *et al.*, 2018), a programme aimed at building reflective capacity, fostering the use of multiple perspectives on complex clinical events, enhancing appropriateness of ethical and societal concern as well as sustaining curiosity and empathy among medical doctors (Branch and Frankel, 2016).

Workplace opportunities foster students' identity work: learning about the profession, its inherent expectations and potential challenges to their self-understanding as well as exploring who they are expected and could choose to be as future professionals. For example, Armitage-Chan (2018, p. 62) argues that individuals use 'social experiences to question prior identity understanding, and reconstruct a version of the self that is informed by context and remains open to further intentional reconstruction'. PIF thus draws on individuals' past, present and possible future identities in a quest for a professional self-understanding that aligns who those individuals are personally and professionally. Such alignment is crucial to enable them to thrive in their future career, as Hirschy *et al.* (2015, p. 778) suggest: 'individuals who perceive that their professional work is related to their own sense of self will characteristically take a personal approach to their future profession and actively integrate their learning with other aspects of their life.'

Knowledge gaps and research questions

The research discussed above implies that PIF involves elements of self-identity that are enduring and elements of self-identity that are changing in the light of individuals' professional identity work. However, it remains largely unclear which elements of PIF are enduring, which elements are evolving and how this process occurs. This research thus seeks to expand further on the understanding of the PIF process. Examining veterinary students' experiences during the professional socialization that forms part of their professional education, the analysis presented below is guided by the question of which experiences are constructed as stable and which experiences are constructed as evolving. The methodology and research approach will be discussed next.

Methodology

This exploratory study, funded by the British Academy of Management, was informed by a social constructionist philosophy and a qualitative methodology to enable rich insights into professional identity formation among veterinary students. Data were collected via qualitative repeat interviews with three veterinary students from a university in the United Kingdom (UK)

between August 2017 and July 2019. In UK veterinary degrees, five years of study combine classroom learning (lectures, tutorials, scenarios), placements (extramural studies, called EMS) and intense clinical work (rotations). The first two years of study are predominantly pre-clinical, in which students learn the scientific knowledge underpinning clinical subjects, and in which they engage in 12 weeks of placements focusing on animal husbandry (care of the healthy animal). The following 1.5 to 2 years are also typically classroom-based but focusing on clinical subjects (disease, medicine and surgery). The final year to 18 months is spent in rotations, which are intensive blocks of clinical work, typically lasting 1-2 weeks, either within a university hospital or in university-managed external placements. Further workplace exposure is found within 26 weeks of EMS that are not overseen by the university. Instead students source their own placements, in which they are typically the sole student within the clinic. There is a degree of personal choice in practice type, although the emphasis must be on first opinion (rather than referral) work. As such, the learning of knowledge and skills as well as socialization into the profession takes place in the classroom, in EMS and rotations mainly during the third, fourth and fifth year of study.

To date, eight interviews have been conducted between the three students participating in this study, who were recruited using personal contacts. The students are referred to by a pseudonym to protect their identities. Kathryn was interviewed twice – at the end of her first year and halfway through her third year of study (a third interview is planned before the conference). Jack was interviewed three times –at the end of his third year, at the start of his fourth year and at the end of his fourth year. Marian was interviewed three times –at the start of her third year, at the end of her fourth year and at the end of her fifth year. As such, the sample covered the pre-clinical phase and transition into the clinical phase for Kathryn, the clinical phase for Jack and the clinical phase through to pre-graduation for Marian. While PIF is undoubtedly a personal process, contextual analysis of their accounts of professional identity work at different stages of their studies generates novel insights – and questions – about stability and change in students' emerging and evolving professional self-understanding and the role of professional education / socialization therein as discussed below.

On average, the largely unstructured interviews lasted for about an hour and explored the students' background, motivations for becoming a veterinarian, key learning in the classroom and in work placements, and what in their view makes a good veterinarian. The interviews were audio-recorded, transcribed verbatim and shared with research participants to check and comment. The transcripts were then imported into the NVivo software to aid data management. Thematic analysis (King and Horrocks, 2010) was applied in an inductive manner with themes emerging from the data. In this developmental paper, the relationship between the themes 'manifestations of self-identity' and 'professional education / socialization' are explored using students' accounts as discussed next.

The dynamics of professional identity formation

Manifestations of self-identity

A key theme running through the three students' accounts is a connection between a personal characteristic (regarded as an expression of self-identity) and their choice of profession. For example, in her first interview, Kathryn explained:

> Well I know you're not supposed to say you've always wanted to be a vet but I really have. I mean if I trace it back, I was always that annoying child going, "Why does this work this way? Why? Why? Why?" and it's just I've always loved science and understanding how things work so I think that was one side of it and then I just loved animals. […] My gran, she had so many cats all the time that I just used to love going up [to visit her] and interacting with them. Any chance I got to interact with animals, I loved it. So as I grew up it was kind of love of science, love of animals.

For Kathryn, the motivation to become a veterinarian is anchored in a love of science and of animals, which for her are ideally combined in the veterinary profession. The way in which she describes herself ('that annoying child going "why does this work this way?') positions her love of science and animals as something that is central to her self-understanding. Marian's motivations are similar as her reflections on her first encounter with the veterinary profession, shared in the first interview, indicate:

> Because I am a people person, I'm a very chatty people person, [in my first placement while still at school] I loved the fact that you were dealing with […] different animals' owners. I enjoyed that aspect to it because I thought, "No owner is the same." You would get, um, really empathetic owners or you'd get really short owners that you have to... I thought that was really, really good because they were all different. […] I've always loved animals so I enjoyed the animal aspect to it and I enjoyed the fact that medicine and science went into it as well. It kind of integrated everything that I was looking for when I did like a bit of medicine, I did like a bit of science but I knew I couldn't be a doctor [because I'm so squeamish with people]. Um, it integrated all of that and afterwards I thought, "Well yeah, why did I not think of becoming a vet."

For Marian, the choice of profession is thus anchored in her self-identification as a 'chatty people person' combined with a love of animals and science. Jack's motivations for wanting to become a veterinarian are more scientific as he explains in the first interview:

> [When I was diagnosed with epilepsy as a child] they gave me the little information packets that […] gave you all of the information on the different types of seizure and how they would make people feel or act. I got interested in how that applied to myself. And then I got to the understanding of yes, that's quite interesting, I would like to maybe be a doctor. And then I thought, as much as this sounds incredibly, um, possibly rude, I thought, "Oh, that means I have to deal with people all the time," you know like yes, you have to deal with people in the veterinary profession but not in the same context. So I thought, "I'm not sure I can handle that" […] so I thought, "Well why don't I be a vet instead because they do the same thing but with the animals and you're still engaging with people, just in a different context."

Jack's choice of profession is anchored in an interest in medicine that he developed after having been diagnosed with epilepsy in childhood. Moreover, a self-proclaimed lack of interest in people led him towards a veterinary rather than a medical degree. These themes are maintained in subsequent interviews. For example, Kathryn relates the following incident as part of an

animal husbandry placement in the second interview:

> I did a behaviour placement, […] they had […] a whole bunch of different animals. […] The main placement was actually looking at their behaviour. We were working with a woman who did lots of operant conditioning. So, when we weren't looking after the animals, we were training animals ourselves, which I found really exciting. […] Like, I trained a kid [young goat] to do an agility course. And I trained a gosling to tell the difference between a line-up of objects. So, I would ask for it, and it would peck the object I'd trained it to go for. And then I'd switch them all around, and he'd still go for it. And that was nice because they hadn't […] been trained before.

Kathryn's self-proclaimed combined love for science and animals becomes apparent in this excerpt, which is part of a longer and somewhat passionate narrative of her experiences on this particular placement. Similarly, in Marian's second interview her emphasis on being a people person is retained:

> I do class myself as a people person and in my rotation group I'd say I'm probably one of the most empathetic people and I'll give you an example. The other day there were three women, not very much older than me and it was their horse that was being put to sleep and they were sobbing uncontrollably. And me and a few of my members of my rotation group […] were walking down the pathway and they were at the end of it and […] they said, "Oh no, I can't deal with that. Oh no, […] I'm gonna go and check another horse. I'm gonna go and do this, I'm just gonna like avoid it," blah, blah, blah. And I just said, "Well, you can't really avoid it, it's part of it." We're the vet students, we are meant to go and chat. Um, but they still wouldn't and didn't want to and I was just like, "Right okay, […] I'm good in these situations. I'll go and do that if you [go and take these lab samples to the lab for me]." So that's what I did: I went and I consoled them and, and all of that. I know that's part of the job I am actually very good at, um, and I like that part of the job as well.

In this excerpt, Marian explains how being a people person is an important part of being a veterinarian and that she positions herself as being better at dealing with what above she describes as 'the people aspect' than some of her peers. In the third interview, Marian mentions that she will take up a position as a farm animal veterinarian after graduation, in which she can apply her people skills in addition to the clinical knowledge and skills gained as part of her studies. Similarly, in Jack's second interview his lack of interest in dealing with people is sustained as the following excerpt suggests:

> There was a client that had brought their dog […] to be castrated. […] The dog had its operation, totally fine, um, went home without a buster collar [to prevent the dog from licking the wound] and, you know, we said, "We can put one up for you if you want it," etc., etc. And then [the dog] came in a few days later for its check and it was noted that the site was quite red and seen to be weeping a little bit, you know. And [the vet] said, "Has he been licking?" and they said, "Oh yeah." And it was like, "Okay, would you like us to put a buster collar up for him, you know, 'cause we can do that." […] They ended up dispensed with the buster collar and some preliminary antibiotics, um, and then they came back in again and the wound was a lot redder and definitely

> had some kind of infection going on. [The vet then said] "Well okay, like we need to continue with some antibiotics and we really do need to stop him licking that [wound]" because it was dissolvable stitches, so some of them had started dissolving already because he'd been licking at it. Er, and, you know, they were kind of like, "Oh yeah, yeah, yeah." And then when they went back out to pay, I think they asked whether they could hand the buster collar back in because they hadn't been using it. At this point everybody in the practice is sort of thinking, "We told you that you'd have to use it and this is why your dog's now got this problem." Anyway, they obviously went home [...] and then the practice has a social media presence and there was a one star review left that day and it was actually from this person's partner, very angry about the whole situation [...] saying, "I won't be coming back to this practice, [...] we weren't expecting to have to pay for antibiotics and things like that." But the whole thing essentially boiled down to the fact that, um, you know, they'd said, "Oh well we might not need a buster collar."

In this narrative, Jack's frustration with the situation he witnessed during an EMS placement becomes apparent. He cannot understand why the dog's owners did not use the collar to prevent it from licking the wound and speed up healing, which is standard practice. In addition, he is exasperated by the owners' decision to blame the situation and additional expense on the veterinary practice via the social media post. Not surprisingly, in his third interview, Jack alludes to his desire not to enter general practice (which is what more than 95% of veterinary graduates do) but that instead he is exploring more specialist job opportunities involving less volume of client consultation.

A shared feature of all three students' accounts is the foregrounding of central elements of their self-identity over time. Kathryn positions herself as an animal-loving scientist, Marian as a people person with a love for animals and science, and Jack as an objective scientist oriented in best clinical practice. These elements of their self-identity were highlighted in each interview. It is argued that they act as *identity anchors*, grounding individuals in who they really are and providing stability while they explore who they may want or are expected to be as future veterinarians in the context of their professional education / socialization as examined next.

Professional education / socialization

Three main themes elucidating the role of professional education / socialization have been identified in the dataset.

<u>(1) Repetition of key messages in taught content:</u> Marian and Jack comment in their different ways on the reinforcement of key messages in taught content as part of their clinical training. For example, in the first interview, Marian comments:

> We're taught "you get a good history, then you've got your differential diagnosis", which is basically any disease that the history has told you it could possibly be. You usually have the top few differentials that you really think could be a possibility and then from there, that's when you would do diagnostic tests to narrow down what your diagnosis would be. It would either rule out or confirm one of those differential diagnoses. So you've got your

> history, your differential diagnosis, then you've got your diagnostic tests and hopefully that confirms the diagnosis and then you go on to a treatment plan. It's hammered into us at uni that that is the protocol. […] That is absolutely hammered into you.

In this excerpt, Marian emphasizes the importance of following a certain protocol at the beginning of a client consultation to ensure that diseases are identified systematically and treated quickly and effectively. Her choice of words ('it's absolutely hammered into you') is rather forceful, emphasizing the extent to which she feels that the message is repeated during her programme of study. Jack has a slightly different take on the repetition of key messages, in this excerpt (taken from the second interview) in relation to the notion of professionalism:

> I certainly think the scrub tops do [add to a sense of professionalism] because […] we get told to do this small introductory course before signing to say "yes, I'm ready to do EMS" and that tells you everything. It even suggests "go smart on your first day, see what the practice is like and then loosen it up if you feel that you're out of place". But certainly I think going sort of as I am right now with the […] scrub top [in university colour] on and just a white shirt and black trousers, I think that's perfectly acceptable, bare below the elbow. I think that's perfectly acceptable. I don't feel out of place in the practice that I'm at currently, apart from being [in university colour that differs from practice colour].

Jack's reflection suggests that apparently simple things like choice of dress whilst on EMS placement are covered in class and subsequently discussed to ensure that students look professional – in addition to behaving professionally, although this is not explicitly mentioned. In either interview with Kathryn, there is no mention about the repetition of key messages, which may be due to the fact that she just started the clinical phase of her studies when the second interview took place.

Repetition of key messages during professional education focuses students' attention on the accepted norms and behaviours in their chosen profession and informs their exploration of what it means to be a veterinarian. In the excerpts quoted in this sub-section, students' accounts signal that they have understood the importance of, respectively, taking a structured case history and looking professional whilst on placement. Such seemingly every-day learning is part of their emerging and evolving self-understanding as future veterinarians, alluding to students' ability to do veterinary work and look the part. These accounts thus give insights into the potential role of repeating key messages to inform students' learning about expected knowledge and skills as well as accepted behaviours and values among veterinarians that students have picked up and incorporated into their sensemaking.

<u>(2) Complementarity of theoretical and practical content:</u> All three students comment on the complementarity of theoretical and practical content in their programme of study, which appears to strengthen their understanding of clinical and non-clinical knowledge and skills in professional practice. For example, in the first interview Kathryn reflects on her experiences as follows:

> I'm used to just learning loads of theory but I love it on placement, all the stuff

> I've been learning throughout the year I can see it in practice and I can see it helping animals. It's just, it's so much more encouraging when you can see like practical uses. That's another thing actually, I love it if they ever tell us anything clinical in our lectures because a lot of what we do is theory, what a healthy animal looks like at the moment but sometimes they show us, we have these sessions […] where they give us like a worksheet in our tutor group and we work through it together. And I love the clinical ones of those, if they give you a clinical case and you work through it together and at the end you can find out whether you're right or not. I love that diagnostic where you're kind of, it's like a puzzle. I love that.

Kathryn's passion for science and a good puzzle are apparent in this excerpt but what matters most for the analysis is her statement 'I can see [theory] in practice and I can see it helping animals'. Marian's experiences are similar as the following excerpt from the first interview indicates:

> We had a lecture […] about different questioning techniques. And it would basically be bringing home the message of when it was appropriate to ask open ended questions and closed ended questions. But I mean that was really, really good because I'd never even heard of an open or closed ended question until they did explain this. […] So then obviously we did do these [directed learning sessions]. […] We'd split off into groups of three and we'd be given flashcards again. One flashcard would have client's details on. So there's three members in the group that you're working in, one person's going to be the observer that observes the conversation. One would be the actual vet in the scenario and one person would be the client, the owner of the animal […]. And again, you would have a farm one, an equine and a small animal one and all totally different. So one person would opt to be the farmer […] and they would get a little information pack telling them the relevant information they had to say to the vet but then there might be a little section underneath where it said, "Right, you can also reveal this information but only if the vet asks you this certain question." So it would be whether the vet would then […] ask that to get more information. Then you would have the, the person acting as the vet in that scenario. She would also have a sheet of paper, um, basically explaining the history of the case, why you were going to see that client or why the client was in today and any other relevant bits of information she needed to know. And the observer would literally just watch and give feedback to the other two people. Um, so we've done that twice this year, um, and both of those sessions actually worked really, really well. […] The take home message from it was great because it was forcing us and exposing us to having a person either be really angry or really upset or really concerned about prices. It was all just kind of forcing you to get the relevant information and it was, it did seem like a real-life scenario that they were putting you in. Um, which we all thought actually as a year group was really, really beneficial.

In this excerpt, Marian highlights the benefit of putting theory about questioning into practice in interpersonal interaction between imagined vet and imagined client as practiced in the classroom prior to EMS. In contrast, Jack's focus is more on clinical learning whilst on EMS placement as the following excerpt from the second interview indicates:

> I got to do some blood pressure on a cat as well a few times at one of my other placements, that was quite good. Er, what else did I do? I got to do an

> ophthalmology exam, so I got to have a look at a cat that was unfortunately a bit blind, bless it. And I got to run an awful lot of bloods through one of their machines as well. That was good because I got familiar with […] what the vet nurses would be doing in the practices. So I thought, "Oh okay, I kind of know how it works now."

Here, Jack emphasizes the importance of being able to practice key clinical skills hands-on to fully understand key tasks in a multidisciplinary team involving veterinarians and nurses ('I kind of know how it works now'). In the third interview, Jack explains that such experiences help him to gain confidence as a future veterinarian because he feels that he knows what to do as the following reflection on feedback on his equine rotation illustrates.

> I didn't really feel like I knew a lot, but I kind of had ideas of things. […] Every morning during the rotation, you have to go in and do what we call a SOAP on the patients, which is subjective, objective assessment and plan. [It involves] all of the things that you can do without actually putting your hands on [the horse] and then your assessment is a clinical exam from nose to tail. And then you kind of pull it all together and plan what you're going to do. […] The feedback I got was that I was quite sensible with my approach to the cases that I'd been given. And they said, "You didn't start going along all of these very strange lines that we've seen some students do, wanting to do all of these tests under the sun." They said, "You're very reasonable with how you've approached your kind of diagnosis and planning." Which I thought was good because obviously, if I'd completely missed something or not been as confident, maybe I wouldn't have put some of those things down. But yes, that was quite good from that perspective.

In the excerpts provided in this sub-section, the students' accounts emphasize the bringing together of theory and practice to gain understanding of what veterinarians do in addition to giving them opportunities to practice key skills. In this way, professional education / socialization contributes to shaping students' professional identity formation as they are given the necessary building blocks to develop their professional self-understanding in alignment with good professional practice. Such building blocks thus constitute accepted approaches to veterinary activities and, following perceived successful learning, give students feelings of confidence in their ability to understand and contribute to veterinary work.

(3) Interacting with experienced professionals:

A third theme in the data is interacting with and learning from experienced professionals, which in veterinary education mainly takes place in EMS placements and rotations. It appears that the students choose a role model and identify behaviours that they can mimic in their own practice or analyse more critically and adopt more purposefully. Reflecting on the professional practice of a veterinarian she observed in an early placement, Kathryn explains:

> I might be a bit naive but I like to think most pet owners want to do what's best for their animal but they don't always know what is best for their animal. So I explain to people who have googled something and are completely sure it's definitely what's best for their animal and then it turns out that it will do more harm than good. Calmly explaining to them without being patronizing or making them feel bad because you've got the interests of the animal, you're

> trying to handle the person. The vet I worked [for …] was really good at that. The clients all loved him. I learnt a lot from watching that. […]. He was a really welcoming person and quite down to earth so when explaining things to people, he'd use quite basic language but he'd really try to not be patronizing. […] I think people really appreciated that because no one wants to be talked down to and especially if you're an adult, you don't want to be stood there thinking, "I've no idea what this person is talking about." […] You could see he really cared about the animals as well.

In this excerpt, Kathryn describes the way in which the veterinarian in question approaches client consultations – calmly and informatively without being patronizing – before concluding ‘I learnt a lot from watching that’. Marian’s experiences are, again, similar. Throughout the interviews, she refers to detailed notes she keeps whilst on EMS placements that capture her learning from observing experienced professionals. The following excerpt from the first interview is an example of this.

> [When attending a consultation] I'm thinking, "Right, that worked well, I would do that in the future," or, "Oh that type of statement or that kind of persona or attitude didn't go down very well with that client so you'd have to be more reserved." […] When you are in consultations and you are watching, I am always taking notes as to what does look like […] and again, it's usually absolutely dependent on the client or the vet might have known the client for a while so that's why they can... so it is all to do with that. But I just take it on board mentally what, what looks to work well and what looks to, I shouldn't do that if I come across that type of a client because that's what happened there and things like that, just triggers that might make the consultation spiral a bit, like something that might make the owner absolutely devastatingly upset or for example like the prices of things and how you break the price of stuff to owners and different owners, it'll affect them more if it's a large payment than others, just all about that. So that is constant learning that you do get actually from doing the EMS, which is second to none.

In this excerpt, Marian explains the importance of observing experienced veterinarians in interaction with different clients, of reflecting on the effectiveness thereof and of relating her learning to her future career. In this way, she claims to analyse these interactions and consider potential implications on her own future practice as she is exploring what may make her a good veterinarian. Despite Jack’s overall emphasis on the clinical aspects of veterinary work, in his third interview he reflects on the interaction with an experienced veterinarian whilst on placement as follows.

> I was working with […] this vet, and she’s very experienced and very knowledgeable, and she’s also quite happy to teach. So, she took me into the consultation and it was the very first consultation of the day in this emergency and critical care practice, and she said, “Right, you’re going to do this one.” And I was like, “Okay. How much are you going to let me do here?” And she made me do the clinical exam and fill the triage sheet out, and then she said, “Right, what are you thinking is wrong with this cat?” […] It turned out that […] the owners had said […], “We heard him fighting last night and now this morning, he’s like this.” It was that it had either been bitten or scratched or something on its leg, and I said, “Well I’m thinking it’s either got a brewing

> abscess or something." And [the vet] said, "Yes." She said, "That's what I think is going on as well." She said, "Right, how are you going to treat it?" And I said, "Antibiotics and some pain relief." And she said, "Yes." She said, "What antibiotics and what pain relief?" I said, "How far down the road are you going to let go here and in front of the owners as well?" They said to me afterwards, they said, "We can't help you." I know. But yes, I said, "Well." I said, "I'd probably want to go for this pain relief, this [name of antibiotic] or [name of antibiotic], and maybe a [name of antibiotic] injection. Okay, she said, "What are your considerations for those medications?" And I was like, "What are you getting at here?" She said, "Okay, well let's break it down with the antibiotic. We've got an injection that lasts one day, an injection that lasts two days, but it's the Bank Holiday Friday and their normal vets isn't open until Tuesday anyway. So, you're going to have to dispense tablets as well or do something else to cover that time." And just kind of going through those things with her, and then talking about, "With the [name of antibiotic], can we give an injection?" "Well yes, we can give an injection, but they still need pain relief at home, how are you going to do the pain relief at home, because they've told you that there's another cat in the household, and it's going to eat its food, so you can't give it on the food." And it's kind of like, well, can you just squirt in their mouth? I don't know. And [the vet] said, "Yes, provided [the cat] doesn't have food afterwards." Just kind of going through those things with her, even if it was in front of the owners was still kind of, "Okay, this is reasonable because I'm getting a working knowledge of the case as I'm going through it." Which I don't think you always necessarily get from EMS.

Jack's learning from the veterinarian in question as he was left largely to his own devices in working through the case history, diagnosing the problem and developing a treatment plan is apparent. While emphasizing the awkward nature of this incident ('in front of the owners'), he recognizes the value of working through the case largely independently. Moreover, Jack contrasts this experience with other EMS placements where he is rarely asked to do the work of a veterinarian (see quote above about taking on duties normally done by veterinary nurses).

In the excerpts provided in this sub-section, the students' accounts emphasize the importance of interacting with experienced veterinarians whose approaches and behaviours they can analyse and potentially adopt themselves. Such learning from others (who are potentially role models) provides the students with a repertoire of strategies and tactics through which they can approach and manage different kinds of client interactions and clinical work. It is posited that their observations and analysis feed into their exploration of what kind of veterinarian they are becoming or may want to become.

A shared feature of these accounts is the central role of professional education / socialization shaping students' emerging and evolving professional self-understanding as veterinarians. Students are given key messages about vital skills and acceptable behaviours, repeatedly and often in combination of theory and practice. Moreover, work experience give them the opportunity to interact with more experienced professionals. Whilst in these accounts such messages are portrayed as static, it is argued that they act as *identity resources*, building blocks of social identity (knowledge, skills, norms, behaviours, protocols of professional practice) that are transmitted during professional education / socialization and taken up by individuals in their identity work. These identity resources arguably support students' sensemaking of their experiences and exploration of their professional self-understanding.

Discussion and conclusion

The analysis provided above suggests that self-identity and professional education / socialization fulfil different roles in the PIF process. The former constitutes a stabilizing element, enabling students to draw on features that capture perceptions of who they really are. Each student's self-positioning was retained throughout the 18-month period of the research: Kathryn's description of an animal-loving scientist, Marian's positioning as a people person with a love for animals and Jack's construction of himself as an objective scientist oriented in best clinical practice. It is posited that reference to such personal characteristics acts as *identity anchors*, grounding individuals in their past life experience and providing stability in an environment of intense learning and development (Eliot and Turns, 2011).

Professional education / socialization provide an environment of intense learning and development in which students are expected to acquire significant amounts of knowledge about all kinds of animals and their diseases, clinical and interpersonal skills as well as first-hand engagement with professional practice. An implicit element in the notion of learning is change – changes in knowledge, skills, behaviours – which requires students' exploration of how socially accepted constructions of veterinarians relate to their self-identity. The analysis above suggests three ways in which professional education / socialization contribute to students' exploration of their emerging and evolving professional self-understanding: through repetition of key messages, complementarity of theoretical and practical content and interaction with experienced professionals (potential role models). While the associated learning may simply be used to confirm a particular identity position, there is also scope for students to consider more critically and proactively those incidents that challenge taken-for-granted perceptions of what kind of veterinarian they may be.

In conclusion, the article posits that self-identity acts as a stabilizing element in PIF and that professional education / socialization provide important resources through which individuals can gain an understanding of the requisite knowledge, skills, norms, values and behaviours in their chosen profession. As an exploratory study, the research raises questions about the process by which professional identity is developed. In particular, more systematic longitudinal research is required over the course of a professional programme of study to examine in more depth the identity anchors that individuals evoke in dynamic interplay with the identity resources provided by professional education / socialization. For example, it is possible that identity work takes place mainly when individuals' self-understanding is in dissonance or even conflict with the expectations of professional educators, peers, practitioners or wider stakeholders or when difficult experiences question challenge their emerging and evolving professional self-understanding. A better understanding of these points would enable professional educators to develop appropriate interventions at a time when they are typically needed to support students' exploration of who they may (have to) be as a future veterinarian.

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[i] The Royal College of Veterinary Surgeons (RCVS) is the regulatory body for veterinarians in the United Kingdom. It seeks to 'set, uphold and advance the educational, ethical and clinical standards of veterinary surgeons and veterinary nurses' (www.rcvs.org.uk/home).