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know your animal: knowing animals within veterinary scientific education

Joachim Nieuwland and Franck Meijboom

What does it take to know nonhuman animals? In this essay, we explore diverse ways of knowing animals in veterinary education, bringing out biases and preconceptions that determine not only which animals are known, but also how they are known. Contemplative pedagogy engenders a more holistic way of knowing by fostering one's ability to be truly present with others.

Keywords: animals, contemplative pedagogy, ethical theory, veterinary ethics, wonder

Nonhuman animals (animals hereafter) feature prominently within veterinary education. While veterinary students get to know animals, we might wonder what this means exactly, as there are many ways to know something or someone (Andreotti et al., 2011). What sort of knowledge about animals do students gain as part of their veterinary training? This concern about knowledge is not merely academically interesting, as it bears ethical implications in the way such knowledge affects human-animal relations.

Not all animals are known. Looking for instance at veterinary education in the Netherlands, domesticated animals like dogs, cats, horses, cows, pigs, and chickens predominate the curriculum. Undomesticated but kept animals, like birds, rodents, reptiles and amphibia, appear more peripheral within the curriculum, with animals living in the wild really on the fringes of veterinary training. In other words, when it comes to Dutch veterinary education, it's dogs, chickens, and cows rather than wolves, geese, and deer.

The animals that are known, are known in a specific way. Of course, students come face to face with animals, learning to physically examine individuals and to provide them with healthcare. Veterinary students gain knowledge on a wide range of topics, including the physiology, pathology, anatomy, biology, behaviour, health, and wellbeing of animals. In doing so, students get to know these animals in rather abstract terms and concepts, for instance familiarizing themselves with the theories that explain the immune response of cats, the metabolization of fat by pigs, or the wound-healing of rabbits. As such, animals are conceptualized in scientific, veterinary terms. The body of scientific literature that informs veterinary knowledge might in part however correlate to some extent to the value attributed to animals in societies. Knowledge about animals that are used by humans could therefore be tailored to the specific use of these animals in question. While there is, for example, a swath of scientific literature available on chickens, not many publications appear primarily interested in chickens in and of themselves. It seems that if animals serve a valued purpose in society, there is a strong incentive to gather knowledge about these animals and how they might function in the husbandry systems that are in place (Marino, 2017).

The supposed purpose of veterinary knowledge has shifted over the last decades. While curing diseases of individuals has been central in much of veterinary education, more recent developments emphasize a more preventive approach, to avoid as much as possible that disease affects individual animals and populations (Lipman & van Knapen, 2009). While preventive veterinary approaches go beyond curing disease, they might still revolve around disease primarily. For instance, rather than curing cows or dogs, one could preventively vaccinate them to protect against disease. There is, however, more to promoting the health of cows and dogs. Taking it a step further, the burgeoning field of health promotion shifts attention to health (rather than disease) and the socio-ecological interconnections it requires (Rock et al., 2015). This development gradually moves attention from animals as patients, to individuals able to thrive in supportive environments.
The rise of health promotion ties in with the emergence of One Health, an integration and cooperation of health disciplines ranging the human, animal, and ecological domains (Chaddock, 2012; Rock et al., 2015; Wong & Kogan, 2013). While One Health is probably foremost known for bringing attention to zoonotic diseases such as COVID-19, SARS, Rabies and Ebola, it allows for a broader overview of the complex interplay between humans, animals, and ecosystem health (Lapinski et al., 2015). As such, One Health holds the potential to open veterinary curricula to previously marginal subjects, such as wildlife health, biodiversity, sustainability and – perhaps most importantly – an awareness of interdependence: seeing individuals and their health as ecologically embedded and related to others (Nieuwland & Meijboom, 2019).

How animals are known is not often made explicit and generally something that can be read between the lines, a way of understanding and even reifying animals that results from the way animals are conceptualized and treated within education, and broader organizational policies. It makes knowing animals part of what Philip W. Jackson described as “a hidden curriculum” (1968, p 33), comprising all the unintended and implicit ways in which beliefs, norms and values are transmitted through education. While some have called attention to the hidden curricula of veterinary medicine (Roder & May, 2017; Whitcomb, 2014), we now turn to the ways in which veterinary ethics has explicitly been integrated in many veterinary curricula during the last few decades.

Ethics as a Way of Knowing – and Being – with Animals

The various veterinary scientific ways of knowing animals already bear ethical implications. Whether one sees animals as recipients of disease, or instead as individuals that can thrive given favourable circumstances, will most likely affect the outcome for the animals involved. More explicitly, in practice veterinarians (and veterinary students) are frequently confronted with ethically charged situations, for instance when animal wellbeing is pitted against other values such as public health or economic profitability. Basic questions underly these moral conflicts, such as what do we, as veterinarians, owe to animals? To deal with these and many other ethical questions, veterinary ethics has been developed since the late 1970s (Kesel, 2022), starting in the US by Bernard Rollin (1978, 1989) and Jerrold Tannenbaum (1985). Since their ground-breaking work, many veterinary curricula have incorporated ethics as part of their training of future vets (e.g. Jensen, 2006; Kipperman et al., 2021; Magalhães-Sant’Ana et al., 2014; Magalhães-Sant’Ana, 2014). Students are invited to reflect upon the moral status of animals and determine in deliberation with others what moral obligations they hold with respect to the animals under their care. As such, veterinary ethics adds another way of knowing animals, stimulating open-minded reflection upon the moral value of animals and its implications for veterinary practice.

Here again, we might ask – albeit from an ethical perspective – how do students get to know animals? For a long time, the classical animal ethics of Peter Singer (1975) and Tom Regan (2004) reigned supreme, providing the main reference points in veterinary ethics. This has begun to shift to a more colourful palette of ethical perspectives. With the work of Rollin as an early alternative to these two main theories, it continued with a broader range of views emerging at the beginning of this century, including relational animal ethics (Palmer, 2010) as well as more political ones (Donaldson & Kymlicka, 2011; Nussbaum, 2007), enriched with a rising interest in feminist and care ethics (Ashall, 2022). Especially this most recent development points towards a possible (and perhaps profound) lack in veterinary ethics education.

The classical theories of Singer and Regan align with a cognitive sense of doing ethics – especially when these books are reduced to a few bullet points rather than read from cover to cover – running the risk of reducing moral deliberation in veterinary ethics to a primarily theoretical endeavour (Ashall, 2022). Whether animals matter morally, and to what extent, could then become mainly a question of logic, of consistently applying rules that are deemed warranted upon philosophical reflection. It invites one to carve up the world in moral terms and apply concepts like consistency to come up with (one true) overarching ethical system to explain away moral confusion (McKenna & Light, 2004). Such an approach is valuable in bringing out inconsistencies of one's own moral thinking. However, in veterinary ethics, it runs the risk of reducing ethics to something predominantly conceptual and overlooking the possibility that moral attunement to animals is contextual, relationally embedded, embodied and infused with not only thoughts but also intuitions and emotions (Ashall, 2022).
Rather than merely changing reading materials, or case-studies, this concern about ethical reduction runs deeper. A change at the level of pedagogy appears warranted to transform ethics education from individual critical thinking to a more holistic moral attunement. Here, a contemplative pedagogy could be helpful. Contemplative pedagogy has emerged over the last two decades as an approach to education "that strives for complete attentiveness" (Zajonc, 2013, p. 91). As a pedagogy, it takes a step back from the unilateral transfer of knowledge between teacher and student, bringing attention back to the quality of mind in education. Contemplative pedagogy strives to cultivate mindfulness, a "moment-to-moment, nonjudgmental awareness" (Zajonc, 2013, p. 84), through a wide range of contemplative practices such as meditation, listening, sharing, open dialogue and fieldtrips (Barbezat & Bush, 2013). By doing so, a contemplative pedagogy engenders space not only for reasoning but also for being present and attentive to whatever is arising (Lin et al., 2019; Nieuwland & Meijboom, 2019; Zajonc, 2013). It is a way to diminish any conceptual reductionism of academic thinking that privileges discursive thought as the fundamental way of understanding reality. As such, it creates space for the senses within academic teaching (Harris, 2021), for instance by bringing attention to what one genuinely feels about a moral dilemma (noticing, for instance a pang of discomfort in one's abdomen, shallow breathing, or a tendency to tune out and not bear witness to what presents itself) in addition to one's ability to critically think about it.

A contemplative pedagogy helps the students to be aware not only of morally relevant arguments in any given situation, but to also actually feel and experience what is morally relevant for themselves. This enrichment of moral engagement opens new ways of interacting with and considering animals in education. Whereas critical thinking has its place and value, we suggest it should be grounded in being with other animals in a more nonconceptual way (Nieuwland & Meijboom, 2023). For instance, veterinary students are frequently asked to reflect on a case without having any direct experience with it. While this could help to train critical thinking in anticipation of such situations,

it could also render the actual animal, for instance a cow, absent to become an abstract generalized species-member, rather than the breathing, ruminating, embodied being she is. It could even hinder genuine moral engagement – a reduction of moral engagement in terms of concepts– if one remains at the level of critical thinking also when faced with the cow herself, overlooking the salient embodied presence of another living being. In other words, not truly being there with animals. While disease reductionism is problematic in missing out what it would mean to promote health rather than combat disease only, ethical reductionism overlooks morally relevant features by relying too much on ethical theory and deliberation.

Animals Make You Wonder

Overlooking the animal brings out the need for a sense of wonder in veterinary education.
An important part of the contemplative practices that enrich veterinary ethics is about fostering deep wonder. Deep wonder makes one see the "world for its own sake" (Schinkel, 2017, p. 538), pushing against any rendering of animals in purely theoretical and instrumental terms. Moreover, deep wonder instils a kind of humility about what one can know, inviting one to bracket presuppositions and knowledge about others and oneself (Fingerhut & Prinz, 2020; Schinkel, 2017). Diminishing this and other conceptual pre-structuring of experience allows one to be truly present with others (Nieuwland & Meijboom, 2023). This sense of presence fosters a humbler way of knowing, tempering any attitude of hubris, of believing that we now know animals. Veterinary students and veterinarians do of course know a lot about animals. Still, wonder invites them to remain truly present with other animals to know them even better.

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