Representing Animal-Others in Educational Research

Gail J. Kuhl, Lakehead University, Canada

Abstract

This paper encourages environmental and humane education scholars to consider the ethical implications of how nonhuman animals are represented in research. I argue that research representations of animals can work to either break down processes of "othering," or reinforce them. I explore various options for representing other animals, including concrete examples demonstrating some researchers' methodological and representation choices (including my own). Finally, I consider questions pertaining to evaluating the quality and effectiveness of alternative and less common forms of representation.

Résumé

Le présent article encourage les universitaires œuvrant en éducation environnementale et humaine à se pencher sur les implications éthiques des différentes façons de représenter les animaux non humains en recherche. J'avance que les représentations des animaux en recherche peuvent soit diminuer les processus d'« aliénation », soit les renforcer. J'examine diverses options de représentation des animaux, donnant des exemples concrets illustrant les choix méthodologiques et représentationnels de chercheurs (y compris les miens). Enfin, je me penche sur des questions relatives à l'évaluation de la qualité et de l'efficacité d'autres formes de représentation moins courantes.

Keywords: humane education, environmental education, research representations, animal-others, "othering," alternative forms of representation

As a master's student in education, I set out to research what we can learn from the relationships that grow between mushers and working sled dogs. Having been a musher myself, I believed these relationships could be both deep and rich in quality, and were worthy of study. I completed a qualitative, narrative-style study in which I interviewed eight mushers, encouraging them to share stories, anecdotes, pictures, and art that shed light on their interspecies relationships with sled dogs (Kuhl, 2011). I thought that by collecting stories from mushers about their time with dogs, I could capture some understanding of these relationships. It wasn't until after the study, however, that I gave thought to how the dogs' experiences may or may not have been captured and represented. Obviously, it was the *mushers'* ideas and perspectives about the relationships that I was exploring and representing, not the experiences of the dogs themselves. I wondered, could I have done a better job of also capturing

the dogs' experiences? Later, having had time to reflect on the process as well as read others' research (in education and the social sciences) focused on human relationships with animal-others, I began to critically contemplate research choices involving the representation of nonhuman animals and what these choices may mean for the animals themselves.

The processes of researching and representing other animals puts us, as researchers, in a position of power. Therefore, in developing my PhD research on wolf education (where I will conduct case studies of wolf education programs involving live wolves), I wanted to seriously consider the process, and the possible subsequent effects for nonhuman animals, prior to delving in. Russell (2005) addresses the importance of this issue when she writes that "other beings are likely not remotely interested in our research and writing, busily getting on with their own existence, yet they are profoundly, materially, impacted by our inscriptions" (p. 435).

In this paper I explore the important question, "How do we, as humane and environmental education researchers, represent animal-others[1] in our research?" I begin by situating human-animal relations work within educational research. Next, I provide a brief background of issues pertaining to representing the "other," discussing how nonhuman animals have been "othered." I ask ethical questions and envision possibilities for animal representations in research, in part by looking at examples of other researchers' approaches and in part by intertwining into the discussion examples from my own study of human-sled dog relationships. Finally, I explore issues around evaluating the methodological validity and effectiveness of less traditional forms of representation.

Human-Animal Studies in Education

The study of human-animal relations is, as many fields are, not without historical, socio-cultural, and political complications. Until recently, animals-others were rarely studied outside of positivist, objective science (Noske, 1997). Social sciences were for the study of humans, human cultures, and human relations. Alger and Alger (1997) and Sanders (2003) discuss how difficult it has been for social scientists to study human-animal relations, in part due to the assertion of George Herbert Mead (considered the father of sociology), that social science was solely for the study of humans (Mead, 1962). Mead considered the study of animal-others to be outside of the social realm, due to the fact that animal-others do not use human language. The legacy of this entrenched idea has been difficult for human-animal researchers to overcome. However, in recent years, the idea that only humans should be studied as social beings has been refuted, and human-animal research has concurrently gained credibility as a branch of social science research (Shapiro, 2002). Today, human-animal studies can be found within many fields, including psychology, education, literature, anthropology, health science, sociology, and others (listed in order by quantity

of PhD dissertations produced over two decades) (Gerbasi, Anderson, Gerbasi, & Coultis, 2002).

Generally, human-animal studies in education are conducted through a lens of humane or environmental education, with research questions revolving around topics and issues related to how humans think about other animals and how educators teach about nature and other animals. For example, educational researchers have explored issues related to educating for kindness, care, and respect of animal-others, and have investigated topics such as ethics, critical thinking, educational experiences, educational practice, and issues of oppression (see: Barrett, 2009; Bell & Russell, 1999; Fawcett, 2002; Oakley et al., 2010; Pedersen, 2009; Russell, 2005; Selby, 1995; Warkentin, 2007; Watson, 2006; Weil, 2004; Weston, 1991). As well, human-animal relations, and often the broader topic of human-nature relationships, have been researched in regard to areas such as moral education, educational practice, and ethics education (see: Bonnet, 1997; Bowers, 2001; Jickling & Spork, 1998; Nevers, Gebhard, & Billmann-Mahecha, 1997; Selby, 2000; Weston, 2004).

Although it is clear that the investigation of human relationships with other animals has found a home in the field of educational research, I argue that a closer look at representation is warranted, especially since educational researchers involved in this work are representing not only an "other," but an "other" across species boundaries. It is one thing to represent the voices of human "others," but when that "other" is a member of an entirely different species, creating good, accurate, and ethical representations can be an even more daunting task.

Representing the "Other"

Historically, it was assumed in the social sciences that competent qualitative researchers could objectively observe and report on the experiences of others. However, the assumption that we can truly understand and represent the "other," without that representation being filtered through our own lenses, has been problemized through poststructuralist and postmodern ideologies (Denzin & Lincoln, 2005). Past practices of studying and representing the "other" have had devastating effects for groups of people, a good example being Indigenous peoples: Steinhauer (2002) relates how in the past, research about the Indigenous "other" has been fraught with colonial, patriarchal, exploitive practices that have been destructive to Indigenous cultures. In this way, representations can reinforce stereotypes, prejudice, and ultimately be used to justify continued oppression (Angrosino, 2005), making it especially important to consider and be deliberate about our choices when representing "others." And, as social scientists have increasingly become aware of the perils of "othering," humane educators and some environmental educators have aimed to extend ideas about othering beyond humans.

The Complicated Task of Representing Animal-Others

There are many issues relating to the representation of animal-others in educational research. The most obvious involves the recognition of nonhuman animals as an "other" to begin with. Russell (2005) explores poststructural work and asks, "Who does not quite make it into the lists of those silenced Others deserving to be heard?" (p. 434). She is disappointed by the invisibility of animal-others in poststructural contexts. Similarly, Bell and Russell (2000) write about how, despite the fact that there is an effort in the social sciences to attend to silenced human voices, animal-others often remain beyond the scope of consideration.

Another complication relates to our inability to foresee the consequences of our representations for the animals themselves. For example, in my PhD research, I will look at the value of wolf conservation education. Wolves are one species who have suffered the effects of negative representations. While once the most extensive land mammal in the northern hemisphere, they experienced massive exterminations well out of proportion to their threat to humans (Boitani, 2006; Fritts, Stephenson, Hayes, & Boitani, 2006). Negative depictions and representations have fueled wolf persecution—with some of these negative representations having deep roots. Lopez's (1978) book, *Of Wolves and Men,* examines wolf-human relations and wolves' portrayal in literature, fable, and legend. He discusses Aesop's wolf, for example, where the wolf is depicted as "a base, not very intelligent creature, of ravenous appetite, gullible, impudent, and morally corrupt" (p. 251). Similarly, Antonio (1995) writes:

> So much of our atavistic memory of wolves seems to be dominated by this essen-
> tially religious concept of the devouring demon, augmented in legend by a Grimm
> romanticism of evil…For generations of our ancestors, the werewolf, not to mention
> the she-wolf, became the personification of evil. (p. 220)

While the social and cultural motivation for the massive exterminations of wolves over time is a complicated subject to unravel, historical negative representations of the wolf such as these are one example of how justification for mistreatment of a species can, at the very least, be augmented by negative representations.

Finally, there are issues related to finding a research framework from which to disrupt the human/animal divide. Difficulties arise when frameworks are built on anthropocentric assumptions, and such frameworks may form the bases of even ardent critical pedagogy approaches (Bell & Russell, 2000). Freire (1990) himself emphasized the separateness of humans and other animals and saw the relationship as a hierarchical one. However, he also wrote about how the oppressor dehumanizes the "other" in order to justify the oppression. Even though he did not extend his ideas to animal-others, I suggest his concept of dehumanizing, or emphasizing difference in order to justify oppression, is at work when it comes to the oppression of other animals. If the focus remains on how animals are especially different from and inferior to humans, then their exploitation as

a human resource (e.g., for medical, science, food, or entertainment purposes) can be justified. If we wish to work against these processes of othering (and the subsequent exploitation and mistreatment of animals) through our research and research representations, we need to make thoughtful representation choices.

Exploring Options for Studying and Representing Animal-Others

In a paper exploring representation of the more-than-human, Russell (2005) shares her desire for "research representations which, in their multivocality, create space for the 'voices' of 'nature' to be more audible, and in their polyvocality, take into account our own animality, and in doing both, trouble the 'nature'/culture divide" (p. 439). What exactly would approaches that trouble the divide and recognize our "own animality" look like? Because animals do not use human language to speak to us, how can we represent their embodied experiences and our embodied experiences (as animals ourselves) with them? In my search for discussions about, and examples of research representations of the more-than-human, I found two common underlying themes.

The first theme relates to the importance of representing the intersubjectivity (rather than separateness) of humans and animal-others, working against the western historical human/animal dichotomy. Bell and Russell (1999) talk about the much-needed educational work of "reconnecting words and experience, values and emotions, heads and bodies, stories and life worlds," and the need "to make room for the intimate, sensual, and surprising dimensions of knowing nature and ourselves as part of nature" (p. 82). This educational work of acknowledging human-nature intersubjectivity can be taken up in how we research and represent other animals. Russell (2005) writes about how the process might be one of co-construction (with humans and nature both players in the construction of understanding), while Fawcett (2000) describes it as a process of reciprocal knowledge-making. Fawcett suggests if we work against the historic tendency to view animal-others as objects, and come to know them instead as subjects with whom we can share experiences, then we can rewrite these experiences as narratives. These narratives will acknowledge the intersubjective nature of our experiences with other animals, including thoughts, feelings, and sensations. She proposes that with an understanding that all animal subjects share similar and different perspectives of the same lived world, telling and imagining narratives and stories about our intersubjective experiences can help to promote ethical relationships with animal-others.

A second theme concerning approaches to studying and representing animal-others relates to the idea of embodiment or embodied knowing. Warkentin (2002) discusses "imaginative embodiment" (p. 251) as a means to empathize with other living beings, understanding that while one must respect "the mysteries of 'otherness'" (p. 252), imaginative embodiment can help us

realize our intersubjectivity and interrelatedness with nonhuman others. Using the example of a tree, she explains that through imaginative embodiment, she is able to gain empathy for the tree in part through a process of searching for her similarities and differences with it. Similarly, Fawcett (2000) touches on embodiment in suggesting that "[h]ow our bodies are taught and learn how to sense nature certainly makes a difference to how we know nature" (p. 139). Using the example of a human-moth encounter, she discusses how the experience includes thoughts, feelings, and various senses. She explains how her training as a scientist taught her to separate out the non-cognitive, limiting how she experienced other beings. Embodied knowing, then, involves going beyond the cognitive and attending to the kinesthetic experience with the animal-other.

There are many possible approaches to research and represent animal-others. I have chosen to discuss a small selection of these, together with examples (including my own), in the following sections. The approaches I focus on here include narrative approaches, phenomenology, hypertextual form, pictures, drawings, and art. Obviously, these approaches are a diverse compilation, ranging from methodologies (phenomenology, narrative) to data collection (photos, drawings). However, in my search to discover the ways and means researchers study and represent animal-others, the methodologies (not only the methods) influence how researchers frame, and consequently represent, animal-others in their work.

Narrative

In my master's research on human-sled dog relationships, I used a narrative-like design (Kuhl, 2008). In retrospect, narrative was not necessarily the best method for capturing and representing these relationships. For example, had I used observational methods, the dogs would have at least been bodily present; nonetheless, the observed interactions would have still been filtered through my personal human lens. While narrative in this case falls short in telling the dogs' stories, it may still have done a better job than other methods. For example, had I simply had the mushers answer questions about the relationships via interviews, they likely would have told me *about* the dogs. By encouraging them to share stories and experiences, however, I suspect the dogs themselves were better brought into the equation. There certainly was, in some of the stories, a sense of interaction and "withness" that included the dogs. For example, one musher told me a story about heading out with a dog team to find an old overgrown trail, and the human-dog interaction that ensued. After traveling for some time, they came to a clearing where he disagreed with the lead dog about where the trail took up at the other end—she wanted to go one way, but he thought it was in another direction. Initially, they headed off in the direction he chose, but they ended up having to turn around. He relayed what happened next:

And now I've got to extricate these dogs from all the brush, it's a big pain. Get back into the clearing and I let her [the lead dog] go and she ran right to where she thought the trail was, and down the trail we went. And the whole time I was extricating them from the brush she was like, "Bark, bark, bark, bark!" She was scolding me like you wouldn't believe. (cited in Kuhl, 2011, p. 28)

In this short narrative, it is clear that the lead dog in question is present and represented, at least as perceived through the eyes of the musher.

Other educational researchers have also used and discussed narrative as a means to research and represent other animals and our relationships with them. Russell (2005) believes narratives and/or stories about other animals can evoke images and help us imagine their perspectives and embodied experiences. Fawcett (2000), too, considers narrative as an approach for telling stories that bring to light how our experiences intersect with members of other species. When Fawcett (2002) set out to ask questions about children's perceptions of three common wild animals (bats, frogs, and raccoons), she asked children to tell stories as a means of investigating their beliefs and understandings. She found that, especially the younger (Kindergarten) children, after having a direct experience with the animal, would tell stories of kinship and friendship. Examining the narratives that emerged from her research, she explains that the children's stories "contained the acknowledgement of difference, and elements of mutual empathy and imagination. Many of these children storied the animals as other subjects, like and unlike themselves, subjects capable of reciprocity and agency" (p. 133).

Abram (1996) also explores the potential of narrative. He suggests that the advent of written phonetic language may have played a role in the conceptual separation of humans and the rest of nature due, in part, to the ability of the written word to abstract and separate us from our sensual, everyday lived experiences with the rest of the living world. He compares this to early and present-day oral cultures whose languages often reflect an immersion in the experiences, senses, and sounds of the land. Despite this, he believes that good written stories (or narratives) can write "language back into the land" (p. 273). He proposes that by immersing ourselves in our natural environment with all its myriad beings, we can spin "[s]tories that have the rhythm and lilt of the local sound-scape," that we can create "tales for the tongue, tales that want to be told, again and again, sliding off the digital screen and slipping off the lettered page to inhabit these coastal forests, those desert canyons, those whispering grasslands and valleys and swamps" (pp. 273-274). He hopes that through telling and writing these stories we can reconnect ourselves with an animated living world, as well as develop a better understanding of "right" relationships with the land and our animal neighbours. This understanding could help curb some of the destruction humans are wreaking on the earth and its inhabitants.

Like Russell (2005), Fawcett (2000), and Abram (1996), Dunlop (2001) too sees the benefits of using story and narrative. Dunlop presented (or represented)

her dissertation work as a novel. While her work was not specifically an attempt to represent other animals, the themes of nature and animals are infused in much of her "story." For example, in a poem called *Invocation*, she writes about a coyote, clearly demonstrating both her experience with him (the coyote) as a subject, as well as with the life-world surrounding both of them:

INVOCATION

The coyote stands

in a grainy sea

the fields oceans of heat

crops sucking the air dry

I am surprised to see him

watching me at midday

I thought him a nocturnal creature

his eyes burn into me

becoming me

becoming the falcon circling

the bees droning in meadows of wild flowers

the children's voices

as they pluck blackberries

from the brambles…. (Dunlop, 2001, p. 14)

Dunlop (2001) suggests that using fiction and prose to explore the world can offer us a lens that "opens us to the complexities, the richness and multiplicities of human nature and its possibilities, the infinitely diverse ways of knowing the world" (p. 12). Her idea of discovering "diverse ways of knowing the world" though writing fiction seems to be the same idea underlying Russell's (2005), Fawcett's (2000), and Abram's (1996) suggestions: that using narrative can offer a means to understanding, empathizing with, and representing animal-others.

Phenomenology

Like narrative, phenomenology is a methodology that some social scientists have employed in their attempt to study animal-others. One example is the work of Shapiro (1997), who introduced an empirical phenomenological method called "kinesthetic empathy." Shapiro suggests that because we as humans have the ability for empathy, we can use empathy (especially as related to embodiment or embodied experience) to key in on another animal's behaviour, movement, and postures. The researcher can then get a sense of the animal's experience by combining this kinesthetic empathy with reflections of how the experience is also impacted by both our social constructions of animals (historical and societal) and our history of experiences with the particular individual animal we are studying. Shapiro uses the technique to explore his understanding of his dog, Sabaka. He explains that, "I want to appreciate directly Sabaka's bodily experience, his posture, attitude, incipient and actual moves and be carried along toward them as features of his own intended world" (p. 285).

Warkentin (2007) used Shapiro's (1997) method of kinesthetic empathy in her PhD work that explored human-captive whale interactions at seven sites in the U.S. and Canada, as well as two sites in Australia. She was interested in the ways the humans and whales interacted within a captive space. She writes that:

> Although the sensory perception of the individual whales differs significantly from my human perception, their movements, gestures and modes of being in the inter-active space may suggest that there are features in common, mutual affordances, which can be studied for an understanding of their possible meaning or relevance within the interactions. (p. 111)

She investigated these "mutual affordances" through kinesthetic empathy by attending to things like the smells, sights, and sounds of the site, the experience of being there, the body movements and interactions of both the whales and researcher, a sense of "the presence of authority" (p. 110), and various aspects of the space such as the physical features of the pool—size, shape, depth, and so on. Warkentin's use of kinesthetic empathy represents how this phenomenological approach offers a framework for acknowledging and representing animal-others as subjective, and intersubjective, beings.

Hypertextual Form

While narrative and phenomenology may be more common methodological choices for social scientists attempting to study and represent other animals, there are also unique approaches for *presenting* research involving nonhuman animals. For example, Barrett (2009; also see her paper in this issue) wanted to disrupt the human/nature divide in her doctoral work and deliberately chose a non-linear, "hypertexual" form for her dissertation. Readers who access her website can "click" their way around, listening to frog calls, looking at pictures, or reading different sections of the dissertation at random (rather than sequentially). She explains:

> The hypertextual form, including the music, images, art and perhaps most importantly, the opportunity to 'randomly' choose links, encourages readers to engage in meaning-making processes beyond their discursive, linear rational minds in ways that enable reading *through* rather than just *about* reanimated perception. (2009, p. 20)

Barrett suggests the challenge for her was to create representations that allowed the reader space to consider what animal voices might have to say, but also to provide the reader with an opportunity to acknowledge *who* he or she might be reading along with. By choosing a non-linear form, she hoped to disrupt dominant western ideas about representation and what counts as acceptable knowledge making, which is typically anthropocentric, rational, thinking-focused research. She explains that the hypertextual form may allow readers to be guided by more than intellect in how they read. Instead, they may be guided by:

> [their] higher or intuitive self, spirit, or one of many possible other-than-human persons which constitute animate Earth. With practice, the reader can choose to be more intentional about who they wish to 'read' with, or can also leave the selection of reading partners up to 'chance'. (p. 19)

In her article in this issue, she writes "the representation creates multiple opportunities for other-than-human persons to interrupt human thinking and knowing. It is up to the reader to be a reciprocating partner in this engagement" (Barrett, 2011, p. 135). Essentially, Barrett is hoping that more than a representation, her hypertextual form will be a process: one that allows space for animal-others, at least in spirit, to be present. Whether or not Barrett accomplishes this allowance is another question; however, I believe the attempt to do so is worthy of note.

Pictures, Photos, Drawings, and Art

Text has been the privileged form of representation in the academy; however, like Barrett (2011), some researchers have chosen to move beyond using only text in their attempts to represent other animals. For example, in my work

exploring musher-sled dog relationships, I had the mushers submit photos or art they felt represented some aspect of human-sled dog relationships. I believe representation through pictures allowed for a more holistic portrayal of human-sled dog experiences to come forward (Kuhl, 2008).

One of the emergent themes of my research was mushers' belief that dogs were individuals with unique personalities. Working well with sled dogs meant getting to know and understand these personalities. For example, one musher talked at length about a particular dog, Bear, and his unique antics during a three-month expedition. The participant offered me a photo of Bear (see Figure 1), which I included alongside the text in my thesis. I believe that photos (and artwork) such as this allowed for a richer, more holistic representation of the mushers' stories and experiences with their dogs, bringing particular dogs to life in a way that text alone could not have done.

Figure 1: Dogs with unique personalities.

I was inspired to use pictures and art partly by Fawcett (2002), who explored children's perceptions of bats, raccoons, and frogs, and Hamel (2004), who investigated human/elephant interactions. Both researchers asked children to

draw pictures of animals as part of their research design because they felt that drawing was familiar to children and could perhaps, as Fawcett writes, "tap a deeper level of attitudinal response" (p. 129).

Various educational researchers helped open the way for visual art to play a role in the process and representation of research, as in the examples above. Key among them was Eisner, who was central in both laying the foundation for, and introducing, *arts-based educational research* (ABER) as a method of using arts and aesthetics in the processes of evaluation and research (Barone, 2005). Many educational researchers using artistic research modes (autobiography, dance, visual art, drama, etc.) now take up their work under the ABER umbrella.

Baker (2000), while not an educational researcher, has written extensively on animal representation in art. In his book, *The Postmodern Animal,* he examines the work of postmodern artists who portray nonhuman animals. One theme he discusses is how some of these artists, through their work, resist the concept of "expert" or "expertise" and along with it, hierarchy. They focus on nonhuman animals "at least partly in order to get beyond the pettiness of human authority and closer to something … that the human being cannot understand" (p. 46). He further discusses how some postmodern animal artists attempt to take the viewer away from familiar, meaning-laden contexts in an attempt to work against and disrupt complacency, expertise, and authority. If postmodern art can disrupt complacency and expert thinking, the question arises whether this will have positive consequences for the animals themselves.

This question could also be asked of the work of researchers (myself included) who use alternative forms in their attempts to represent other animals. Does researching and representing animals in unique ways (e.g. via kinesthetic empathy, hypertextual form, photos, or drawings) make any difference to or for the nonhuman animals? I believe alternative forms can work toward disrupting the status quo and the human/animal hierarchy if the representations are "good"—but this begs the question, what makes for a good representation?

Evaluating Alternative Forms of Representation

If we, as humane and environmental education researchers, turn to alternative forms of representations to depict animal-others and our relationships with them, we must consider how we will evaluate the strength and validity of these representations. Eisner (1997) discusses the "promise and perils" of alternative forms of data representation in educational research. He writes that while many of us are more comfortable with knowledge that seems objective, verifiable, and solid, alternative forms of data representation don't necessarily offer us this sense of security. They do, however, open up a variety of ways not only to represent, but also to know or understand (because the methods we select have an effect on what we observe or see). He suggests that alternative forms of representation are more open and edgier, and that, compared to hard facts and

hard data, "[k]nowledge as a process, a temporary state, is scary to many" (p. 7).

Eisner (1997) suggests alternative forms of representation (such as dance, art, poetry, pictures and photos, video, etc.) should be used when the alternative form: (a) does a better job than a traditional method, (b) provides a sense of particularity and authenticity, (c) "generates insight and invites attention to complexity" (p. 8), (d) offers us new ways of seeing and leads to new questions, and (e) allows for those with different aptitudes and intelligences to present research through methods that suit their abilities. He also suggests there are obstacles or drawbacks to using alternative forms of data representation, including the potential for ambiguity where an infinite variety of meanings may be drawn from the representation (Rorschach syndrome); the potential backlash from the research community about authenticity, which often necessitates the researcher providing context for newer, unique forms of representation; and issues related to "publishing" forms of data representation that are not textual.

While Eisner's (1997) thoughts on evaluating the pros and cons of alternative forms of representation are a good starting point, he does not speak specifically to evaluating the ability of alternative forms to represent animal-others. Vance (1995), however, lays out some criteria of what makes for good narratives of other animals, including that: "(1) they should be ecologically appropriate to a given time and place; (2) they should be ethically appropriate in that time and place; (3) they should give voice to those whose stories are being told; and (4) they should make us care" (pp. 178-179). Her criteria could, I believe, be easily transferred to other, non-narrative representations as well.

Based on themes that have emerged in writing this paper, I too will suggest some criteria for research representations of animal-others. It seems that good representations should: first, portray the subjectivity (rather than machine-like objectivity) of other animals (helping to break down processes of othering); second, lead us to understand or empathize with that animal and her or his embodied experience (like in the examples from Shapiro and Warkentin above); third, help us, as animals ourselves, to understand our similarities and/or differences to other animals; and finally, lead us to more ethical relationships with animal-others. This last point is, I believe, especially important: if the representations we create are good ones, they should inspire a more ethical relationship with those we are representing. According to Vance (1995), we can determine a representation's accuracy in part by "the behavior it calls forth from humans. If an animal's 'voice' dictates action that serves human ends but compromises the animal, we had best try listening more carefully" (p. 183).

Conclusion

In this paper I have attempted to explore issues and possibilities around represent-ing animal-others in educational research. I contend that being deliberate about methodological choices and using alternative forms of representation (such as in

the examples outlined above) are ways we might disrupt the status quo where nonhuman animals remain the "other." Incorporating alternative forms of representation may also allow for more varied, holistic, and embodied understandings of human/animal-other relationships and interconnections to emerge. However, I also realize that even if we are conscious and deliberate in choosing and evaluating various forms of representation, all forms have their limits.

Representation is by no means neutral. Clearly, however we (as researchers) choose to represent the "other," we are wielding power as our representations have the ability to change perceptions, and, ultimately, "other's" future realities. As Russell (2005) states, "Whoever does not write is written" (p. 433). Understanding that we have this power will hopefully make us more careful and deliberate as we strive to find ways to listen to the "voices" of our animal neighbours and represent them respectfully. I believe representations will, however, always fall short of the actual animals themselves. Our representations will only ever capture a shadow of the beings who are the subjects of our research. They will only ever be one depiction, a depiction filtered through a lens that has been molded by a particular socially and historically influenced perspective. However, despite the fact that we will only ever attain a partial perspective, I believe that we should still strive for the best possible one. When educational and other social science researchers bring other animals into their work and endeavour to create good ethical representations, a philosophical shift (continues to) take place. In so doing, animals besides humans can be understood as thinking, feeling, beings, with lives worthy of consideration, and humans will start making changes that will ultimately benefit animal-others' material situations—working against circumstances like species extinction, habitat degradation, animal exploitation, and animal cruelty.

Notes

1   For the majority of this paper I have chosen to use the term "animal-others" when discussing nonhuman animals, for two reasons: First, I want to highlight the point that humans are also animals. Second, because in using the term "other," I want to draw attention to the fact that socially, at least from a western perspective, nonhuman animals have been "othered," just as various groups of humans have.

Notes on Contributor

Gail Kuhl is pursuing a PhD in Educational Studies at Lakehead University. Her research involves investigating the value of wolf-education programs. **Contact:** gjkuhl@lakeheadu.ca

References

Abram, D. (1996). *The spell of the sensuous*. New York: Vintage Books.

Alger, J. M. & Alger, S. F. (1997). Beyond Mead: Symbolic interaction between humans and felines. *Society and Animals, 5*(1), 65-81.

Angrosino, M.V. (2005). Recontextualizing observation. In N. K. Denzin & Y. S. Lincoln (Eds), *The Sage handbook of qualitative research* (3rd ed.) (pp. 1-32). Thousand Oaks, CA: Sage Publications, Inc.

Antonio, D. (1995). Of wolves and women. In C. J. Adams & J. Donovan (Eds.), *Animals & women: Feminist theoretical explorations* (pp. 213-230). Durham, NC: Duke University Press.

Baker, S. (2000). *The postmodern animal.* London, England: Reaktion Books Ltd.

Barone, T. (2005). Arts-based educational research and the professional heroism of Elliot Eisner. In P. Uhrmacher & J. Matthews (Eds), *Intricate palette: Working the ideas of Elliot Eisner* (pp. 117-126). Columbus, OH: Pearson Merrill Prentice Hall.

Barrett, M. J. (2009). Taking representation seriously: Epistemological and ontological congruency in hypertextual research/representation. Retrieved from http://www.porosity.ca/pages/hypertextual_congruence.pdf

Barrett, M. J. (2011). Doing animist research in academia: A methodological framework. *Canadian Journal of Environmental Education, 16*, 123-141.

Bell, A. C., & Russell, C. L. (1999). Life ties: Disrupting anthropocentrism in language arts education. In J.P. Robertson (Ed.), *Teaching for a tolerant world: Grades K-6: Essays and resources* (pp. 68-89). Urbana, IL: National Council of Teachers of English.

Bell, A. C., & Russell, C. L. (2000). Beyond human, beyond words: Anthropocentrism, critical pedagogy, and the poststructuralist turn. *Canadian Journal of Education, 25*(3), 188-203.

Boitani, L. (2006). Wolf conservation and recovery. In L. D. Mech & L. Boitani (Eds.), *Wolves: Behavior, ecology, and conservation* (pp. 317-340). Chicago, IL: University of Chicago Press.

Bonnett, M. (1997). Environmental education and beyond. *Journal of Philosophy of Education, 31*, 249-266.

Bowers, C. A. (2001). Toward an eco-justice pedagogy. *Educational Studies, 32*(4), 401-416.

Denzin, N. K. & Lincoln, Y. S. (2005). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed.) (pp. 1-32). Thousand Oaks, CA: Sage Publications, Inc.

Dunlop, R. (2001). Excerpts from Boundary Bay: A novel as educational research. In L. Neilsen, A. Cole, & J. G. Knowles, (Eds.), *The art of writing inquiry* (pp. 11-25). Halifax, NS: Backalong Books.

Eisner, E. (1997). The promise and the perils of alternative forms of data representation. *Educational Researcher*, *26*(6), 4-10.

Fawcett, L. (2000). Ethical imagining: Ecofeminist possibilities and environmental learning. *Canadian Journal of Environmental Education, 5*, 134-149.

Fawcett, L. (2002). Childern's wild animal stories. *Canadian Journal of Environmental Education*, *7*(2), 125-139.

Freire, P. (1990). *Pedagogy of the oppressed*. New York: Continuum.

Fritts, S. H., Stephenson, R. O., Hayes, R. D., & Boitani, L. (2006). Wolves and humans. In L. D. Mech & L. Boitani (Eds.), *Wolves: Behavior, ecology, and conservation* (pp. 289-316). Chicago, IL: University of Chicago Press.

Gerbasi, K. C., Anderson, D. C., Gerbasi, A. M., & Coultis, D. (2002). Doctoral dissertations in human-animal studies: News and views. *Society & Animals*, *10*(4), 339-346.

Hamel, S. K. (2004). *A participatory approach to community-based curriculum development for the Living With Elephants outreach program in Botswana.* (Master's thesis). Retrieved from ProQuest Dissertations and Theses Database. (UMI No. MQ92243)

Jickling, B. & Spork, H. (1998). Education for the environment: A critique. *Environmental Education Research, 4*(3), 309-327.

Kuhl, G. J., (2008). *Human-sled dog relations: What can we learn from the stories and experiences of mushers?* (Master's thesis). Retrieved from ProQuest Dissertations and Theses Database. (UMI No. MR43424)

Kuhl, G. (2011). Human-sled dog relations: What can we learn from the stories and experiences of mushers? *Society & Animals, 19*(1), 22-37.

Lopez, B. H. (1978). *Of wolves and men.* New York: Charles Scribner's Sons.

Mead, G. H. (1962). *Mind, self, and society*. Chicago, IL: University of Chicago.

Nevers, P., Gebhard, U., & Billmann-Mahecha, E. (1997). Patterns of reasoning exhibited by children and adolescents in response to moral dilemmas involving plants, animals and ecosystems. *Journal of Moral Education, 26*, 169-186.

Noske, B. (1997). *Beyond boundaries: Humans and animals*. Montreal: Black Rose Books.

Oakley, J., Watson, G. P. L., Russell, C. L., Cutter-Mackenzie, A. Fawcett, L., Kuhl, G., et al., (2010). Animal encounters in environmental education research: Responding to the "question of the animal." *Canadian Journal of Environmental Education, 15*, 102-118.

Pedersen, H. (2009). *Animals in schools: Processes and strategies in human-animal education*. West Lafayette, IN: Purdue University Press.

Russell, C. L. (2005). 'Whoever does not write is written': The role of 'nature' in post-post approaches to environmental education research. *Environmental Education Research, 11*(4), 433-443.

Sanders, C. R. (2003). Actions speak louder than words: Close relationships between humans and nonhuman animals. *Symbolic Interaction*, *26*(3), 405-426.

Selby, D. (1995). *Earthkind: A teachers' handbook on humane education*. Staffordshire, England: Trentham.

Selby, D. (2000). A darker shade of green: The importance of ecological thinking in global education and school reform. *Theory into Practice*, *39*(2), 88-96.

Shapiro, K. (1997). A phenomenological approach to the study of nonhuman animals. In R. W. Mitchell, R. S. Thompson, & H. L. Miles (Eds.), *Anthropomorphism, anecdotes, and animals* (pp. 277-295). Albany: State University of New York Press.

Shapiro, K. (2002). Editor's introduction: The state of human-animal studies: Solid, at the margin! *Society & Animals*, *10*(4), 331-337.

Steinhauer, E. (2002). Thoughts on an Indigenous research methodology. *Canadian Journal of Native Education, 26*(2), 69-81.

Vance, L. (1995). Beyond just-so stories: Narrative, animals, and ethics. In C. J. Adams & J. Donovan (Eds.), *Animals & women: Feminist theoretical explorations* (pp. 163-191).

Durham, NC: Duke University Press.

Warkentin, T. (2002). It's not just what you say, but how you say it. *Canadian Journal of Environmental Education, 7*(2), 241-255.

Warkentin, T. (2007). *Captive imaginations: Affordances for ethics, agency and knowledge-making in whale-human encounters.* (Doctoral Dissertation). Retrieved from ProQuest Dissertations and Theses Database. (UMI No.NR32073)

Watson, G. (2006). Wild becomings: How the everyday experience of common wild animals at summer camp acts as an entrance to the more-than-human world. *Canadian Journal of Environmental Education, 11*, 127-141.

Weil, Z. (2004). *The power and promise of humane education*. Gabriola Island, BC: New Society Publishers.

Weston, A. (1991). Non-anthropocentrism in a thoroughly anthropocentrized world. *Trumpeter1991*. Retrieved from http://trumpete.athabascau.ca/content/v8.3/weston.html

Weston, A. (2004). What if teaching went wild*? Canadian Journal of Environmental Education 9*, 31-46.