Journal of EVOLUTION & Technology

A peer-reviewed electronic journal published by the Institute for Ethics and Emerging Technologies

ISSN 1541-0099

24(3) – Sept 2014

Whom Would Animals Designate as "Persons"? On Avoiding Anthropocentrism and Including Others

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Journal of Evolution and Technology - Vol. 24 Issue 3 – Sept 2014 – pgs 44-

Abstract

Humans are animals; humans are machines. The current academic and popular dialogue on extending the personhood boundary to certain non-human animal species and at the same time to machines/robots reflects a dialectic about how "being human" is defined, about how we perceive our species and ourselves in relation to the environment. While both paths have the potential to improve lives, these improvements differ in substance and in consequence. One route has the potential to broaden the anthropocentric focus within the West and honor interdependence with life systems, while the other affords greater currency to a human-purpose-driven worldview–furthering an unchecked Anthropocene. The broadening of legal personhood rights to life systems is underway with a ruling for dolphins in India, for a river in New Zealand and with Laws of the Rights of Mother Earth in Bolivia. Many philosophers, ethicists, and ethologists define personhood within the confines of the dominant anthropocentric paradigm, yet alternate eco-centric paradigms offer an inclusive model that may help dismantle the artificial wall between humans and nature. In this paper, I explore these eco-centric paradigms and the implications of an associated worldview for human perceptions, self-awareness, communication, narrative, and research.

Introduction

The human being is becoming more animal-like and more machine-like at the same moment in time. Academia is now brimming with new disciplines and courses on human-animal relations, animal studies and also on the human/machine interface and related ethics. Our technologies are closer than ever to merging forces with human life, but also our despair at the destruction of the earth's life forms seem to awaken a need to find the animal in ourselves before we destroy all

traces of what that means. Boundaries are certainly shifting but in what direction will they move? The technological fix for the imperfections in our humanness, our biology and our civilization is calculated by our own definitions of what it means to be human. Where the imperfections lie is a point of challenge. Machines can enhance our knowledge base and our intelligence, but what can becoming more animal enhance?

In many nations simultaneously, governments and legal frameworks are offering certain animals and other life systems inclusion within the bounds of "personhood". This leveling movement, which puts humans on the same moral and conceptual ground as some other species will benefit those included and perhaps others greatly, through access to legal rights and inclusion into a domain that has been reserved for humans in the West for centuries. Not only will other species gain rights but the model of humans as separate from and superior to other animals is also called into question. This human-centric paradigm–a legacy that runs from ancient Greece as Aristotle claimed animals lack souls, to Descartes, for whom animals were mechanistic, instinct-driven machines–is rattling from inner tensions. As Thomas Kuhn (1962) explains, when holes or anomalies become apparent, a new paradigm begins to take hold. The many studies on animal emotions, language, cognition, and brain structure are exposing incongruities.

This broadening of personhood and attendant rights follows from a cultural progression of increasing enslavement of millions of non-human animals within industrial farms and extinctions due to degrading and lost habitats. As humans have moved farther from their food resources, farther from farms and from even cursory knowledge of the food system, animals pay an unbearable price as own-able objects subject to insatiable consumption patterns. At the same moment, in 2010 pet owners spent $55 billion in the US, and did not decrease spending during the recent recession (Martin 2011). Humans want to be in relationship to animals, but only those in our home and towards the rest we will turn a blind eye. Humans are not animals; humans are machines; animals are machines; animals are kin. Confusion abounds, brought to clarity at times in legal actions that bring animals closer to a status in which bodily freedom is a given right. Legal rights help to structure relationships (Nedelsky 2011) and as legal cases are won for bodily freedoms for non-human animals, relationships will shift. Yet these important legal cases perhaps should not set the course of this new boundary, but only carve out one crucial component. Dialogue and introspection may serve to guide the process away from the fault lines of anthropocentrism. A world driven by human purpose is a world losing its balance, with change so rapid for so many species that there seems to be no time to adapt.

Granting personhood based on anthropocentric notions of rationality and morality may ultimately be riddled with Kuhn's anomalies and holes, in part due to a falsely anthropocentric ontology. Personhood and attendant rights may be granted to certain species based on scientific data indicating self-awareness, autonomous action, mental time travel, and yet are these markers not drawn with the pen of the this dominant paradigm that separates humans from nature? When we study self-awareness are we not imposing our human understanding of "self" and "awareness", seeing through an anthropocentric lens?

Cultural studies of indigenous ontologies and work by indigenous researchers present an inclusive model of personhood and a relational approach to the world that is mirrored in the philosophical tradition of phenomenology. Alternate paradigms exist in which relationships with animals and all life systems are honored as a reciprocal matrix, in which humans do not occupy the central role but share the stage with the rest of the world. Understanding these paradigms and their implications points to how becoming more animal may enhance human experience. Indigenous ontologies present an inclusive model of personhood and offer alternate concepts of self and

awareness. This paper explores this more inclusive approach and its implications for human perception, knowledge, communication, narrative and research.

Are Humans Animals and/or Machines?

The human as animal and machine represents a dialectic, a dynamic polarity of forces. The pull of this polarity has the potential to define the human role on the planet and has sweeping implications for other life and land forms. Are humans mechanistic and should these qualities of supreme intelligence, reliability and controllability become the hallmark of our humanity, the features we are most proud of? Or are the connections to our ancestors and roots, our honoring of these relationships and our dependence on all of the earth's systems be our defining attribute, what we honor most? Vertical, top-down management styles seem to be flourishing in many parts of the world, and are also becoming outmoded. Drawing a larger circle of personhood reduces the verticality of human uniqueness and creates a more horizontal model of participation and rights. What led to this moment?

The "animal" and "machine" within humanity have been instruments of repression. Political repression has been justified through invoking human "animality", the masses as "animals"– non-thinking, irrational and guided by desire which can be manipulated for corporate control and benefit (Lipmann 1925, Bernays 1955, Chomsky 1996). Going back in time to the origins of this debased view of animals, the transition from nomadic to sedentary lifestyles after the last ice age is what some view as the most significant cultural revolution in human history (Harrison 1992). Deemed the first literary work, the Sumerian epic of Gilgamesh tells of a hero who aims to destroy the protector of the forest, one indication of a monumental paradigmatic shift from mythos to logos (Harrison 1992, 26).

Machines and technologies, both in the early 20th century and today, are considered hallmarks of progress, of human evolution even, enhancing humans' lives. And yet the technologizing of production removed the human from production, and reduced the human worker to a body, a mechanism of production (Ingold 2000, p. 318). The technology "religion" of the moment in which Apple computers and Steve Jobs are virtual god-heads has helped to push the literal and metaphoric machine into our lives at the expense of the living world. Westerners and many others today spend more time with machines than with humans or with other aspects of the world and thus crave a re-connection to life and participation. For many weeks of the year, the most popular online stories and videos are about animals.

The Cartesian mechanistic view of nature, the elevation of human minds above debased nature, devalues all elements of life systems, removes the personal powers inherent in the landscape (Ingold 2000), disrupts a balance, an inherent reciprocity that indigenous peoples say drives all of life. This mechanistic model divorces us from our senses, our experience. We absent ourselves from relations through objectifying and immobilizing the experience of contact and reciprocity with the world. "To define another being as an inert passive object is to deny its ability to actively engage us and to provoke our senses; we thus block our perceptual reciprocity with that being" (Abram 1996, 56). Today's ever-present mechanization may be exposing its limits.

Human animality in the last decades has emerged as a renewed kinship, a re-entry into a lost family through the works of Donna Haraway, Tim Ingold, Marc Bekoff, David Abram, Paul Shepard, and too many others to name. The broader understanding of animals' complex capacities–rats that show behavioral flexibility, a marker of consciousness, and macaque monkeys with mirror neurons that allow one to grasp the mind of another through direct

stimulation (Bekoff 2007) – raises human awareness and treatment of their "kin" to a more equitable position. This re-entry is akin to a human who had been isolated in a cave for decades, coming back into their family of origin but needing to relearn how to honor and uphold relationships, how to know and honor the interdependence of their life.

Defining Personhood

What are the roots and meanings of the "personhood" concept? Demarcation of the personhood line is not arbitrary, but rather the line reveals much of the underbelly of a particular culture. Personhood is a concept, it is metaphoric and the shape of the definition aligns closely to that culture's matrix of values, attitudes, beliefs and with each individual's sense of personal identity. How the self relates to the world is reflected therein, as well as relations to the "other". A "person" is someone who shares a commonality and who might share in the "we" of each. A "person" has a form of standing, becomes a subject.

Cultural differences in the definition of a "person" reflect alternate ontologies and epistemologies. The personhood concept is a metaphor for ethical frameworks for treating others. Kant's emphasis on rationality and reason gave further strength to the selection of intellectual qualities as a criterion for inclusion and boosted an already entrenched human exceptionalism. The inclusion of all life systems acknowledged by the indigenous cultures' of the circumpolar north and elsewhere expresses the value placed on interdependence and a reciprocating web of life. The value of a being is not related solely to intellect, to rational thought, but lies in the connections with all life.

While the fields of psychology and philosophy emphasize the cognitive and intellectual markers of personhood, anthropology offers a cultural perspective; a cross-cultural look at personhood gives the westerner access to alternate paradigms and reveals assumptions inherent in the western model. In certain non-western cultures or indigenous cultures, the concept "person" may apply to animals, plants, humans, life systems, climatic events, landscapes, and spirits (Ingold 2000, 90).

Western Definitions

Designating the qualities that constitute personhood is controversial and has been actively addressed in recent years in the pursuit of rights for non-human animals by philosophers, legal scholars and biologists (Cavalieri & Singer 1993, Francione 2000, Midgley 2005, 132-142, Wise 2008). Three of the primary hallmarks of personhood within western philosophical traditions are rationality, autonomy and self-awareness. Legal scholar Steven Wise (2002) speaks of "practical autonomy" as necessary for personhood. This has three elements-- enough cognitive complexity to want something, the ability to act on one's intentions, and a sense of self complex enough that achieving one's goals or purpose matters. On similar grounds, philosopher Peter Singer (1993) draws a line between the numerous beings that are sentient and the few eligible for personhood on account of possessing self-awareness, or self-consciousness. DeGrazia (2009), however, shows that self-awareness comes in manifold forms, which differ from one non-human kind to another.

Despite the commonplace western assumption that "persons" are exclusively human–barring pets considered extensions of human families and animals in folktales, modeled on humans (Ingold 2000, 90)–non-human animals and other natural forms are attaining standing within courts (New Zealand, India, Switzerland, Bolivia). Animals are coming to be acknowledged as subjects of

their own lives with intentionality, emotionality (Bekoff 2007), self-awareness (Reiss & Marino 2001). This wave of legal challenges, the breakthroughs on animals' behalf in advocacy and discoveries in academia, comes along at a relevant moment, during the current sixth great extinction, a result of the Anthropocene, the first human-driven geologic period. The current course of ecological devastation is a hint that the current anthropocentric paradigm, originating in ancient Greece and carried forward in many Jewish and Christian traditions, is reaching the limits of its own rationality. This is a crisis in the disciplinary matrix, as Thomas Kuhn (1962) might say, yet the crisis is not just to the standing scientific order. For many species, it threatens their very existence: 30-50% of all species face extinction by mid-century (Thomas et al 2004, Chivian & Bernstein 2008). An alternate paradigm may provide better models of co-existence and resilience and a way for humans and other natural forms to share the planet without destroying it.

With court cases in the United States to obtain personhood rights for chimpanzees, definitions of a "person" within much of the recent debates and literature are aligned within the current paradigm, within the reign of anthropocentrism.The principal personhood markers, such as self-awareness that can be proven with mirror recognition tests and mental time travel are constructs of the current paradigm that values rationality and the autonomous self. These cases must work within the existing paradigm to succeed, and the legal system in the US is tied in origins to ancient Greece (Wise 2002). Yet studies of other cultures reveal inclusive models of personhood that are relevant in allowing non-humans a sense of standing. Taking a deeper look at one of the primary markers for personhood, self-awareness, may help us unravel the cultural and human-centric assumptions inherent in this concept.

The Marker of Self-Awareness

What is the "self" that is experienced as part of self-awareness, and what are its boundary lines? Is it an interior being, hard to reach or describe, shaped within the body's confines, or is the self multi-faceted, comprised of relationships, both within and beyond the body? For decades, anthropology has compared the individualized, "bumper car" qualities of the western self to non-western relational approaches to self (Conklin & Morgan 1996). Many describe the Western self as insular, bounded, occupied with its own processes. Perhaps the closed-off self is a compensation for a loss of relationship to the cosmos, a loss of the celestial dome as a boundary (Sloterdijk 2011).

A closer look within intra-cultural studies reveals a more complex and socio-centric picture than earlier depicted (Gilligan 1982, Murray 1993). Philosopher Nikolas Kompridis (2009) and others (Mead 1934, de Waal & Thompson 2005) write of self and identity as fundamentally relational, such that if relationships were to disappear, then self and identity would cease to exist as well. (Kompridis is also known, along with Derrida and Fukuyama, to point out the potential crimes of genetic manipulation and transhumanism on the essence of humanity. A relational approach to self is not compatible, in their eyes, with technological fixes and interfaces with machines.)

What can we know about a non-human animal self? As practices such as tool making, which seem to indicate anticipation of the future (Krutzen et al 2005, Whiten et al 2005), dialects which reveal an awareness of inter-group differences (Deecke et all 2000, Nelson 2000), and cross-generational pedagogy (Freeberg 1998, Ellers & Slabekoorn 2003) are discovered among non-human animals, the question of the animal "self" becomes amenable to investigation. Anthropologist Bateson (2011, 309), in observing dolphins, describes a different communicative center of gravity for humans and non-human animals. Animals seem to perceive and

communicate about relationships, and thus define relationships through their communication, while humans communicate about things.

As we have already seen, self-awareness is a primary marker for personhood within the Western paradigm, and certain species seem to pass this gold standard through their performance in the mirror recognition study, in which an animal seemingly recognizes itself in a mirror. The kind of self-awareness revealed by a mirror recognition studies is taken, in the West, to be a condition for and a marker of moral sense and conscience (Sloterdijk 2011, 192-205). What then is the nature of the Western self that holds such currency? This insular self, this interior being that strives for the Western values of autonomy and independence, is this self a moral agent more than a relational self ?

How do animals experience self? In the following passage, cetacean researcher Leah Lemieux explores dolphin's perception and sense of self.

> Dolphins are supremely aware of their bodies and the lightest touch and give every indication that any touch or contact that is made is, like their breathing, a conscious effort (or allowance). As they travel and crisscross among themselves, they may indeed caress and touch amongst themselves, or they may maintain what the late Dr Ken Norris referred to as the "envelope"--a communicative, flowing space around each individual, which at the same time seems to bind the group together as they keep cohesion and synchrony even at speed.
>
> The magic "envelope" is destroyed in the chase and chaos of encirclement as may be cetacean vocal communications by engine noise or pole-banging in the case of the Taiji [Japan] hunts. So many of us are familiar with the frustration of why dolphins, even when they are about to be killed in Taiji, simply don't jump the nets and rush for freedom.
>
> I suspect a large part of the answer may be this group sense of self. Why don't a couple of dolphins jump and run for it and leave the rest behind? Simply because (in theory) this would be hardly more plausible to them than your elbow running off and leaving the rest of your body behind! Those several dolphins are not so much individuals perhaps, as parts, as limbs of the greater body of the POD. They do not escape in ones and twos because perhaps they must leave together or not at all. And in order perhaps to organize that kind of exodus properly, they need to be able to reconstitute their magic "envelope" which the chase and drive has at least temporarily destroyed. –Leah Lemieux (pers. commun.)

How does one experience a group self, in which awareness of self and of the group in creating an envelope of movement is simultaneous and interlocking like fingers entwining? The passage cited above from cetacean expert Leah Lemieux suggests that dolphins have a self-awareness built around awareness of others. This dolphin self which may encompass their entire pod is stronger than their own physical danger, their own life. Western philosophy places strong emphasis on morality as a characteristic of personhood, and yet wouldn't this relational concept and design of self have greater moral concern, greater empathy than the insular western concept? And what if we could uphold this concept as a marker for personhood? Perhaps this is the marker that an animal would use to determine personhood.

Emotions are the glue of our lives, our family ties, and perhaps our moral sensibilities. Morality in the West is founded on mental ability to reason, to be rational and objective, yet more likely it

is intimately connected to emotions and relational concepts of self. When viewing video footage of a mother or daughter African elephant mourning the loss of a parent or child, a grief that allows for no food, water, sustenance, that can lead to death, one cannot question the empathy, relationality, and genuine honoring of another among non-humans. As Mary Midgley (2005) writes, emotionality can serve as a more useful marker for personhood, or a holism of emotion and intellect, as one cannot be realistically detached from the other. Midgley says that emotional bonds distinguish humans and animals from machines.

Personhood as defined by self-awareness, for example, in the work of Peter Singer has broken through the barrier of human exceptionalism while yet perpetuating the western notion that intellect and rationality are criteria for inclusion in the moral society, in the community of those entitled to rights of bodily freedom. If a more inclusive indigenous perspective of personhood were to infiltrate academia and popular mindsets, then what would this mean for our current ontology, epistemology, communication, and ethics? This inclusive concept of personhood does not stand on its own but is intrinsically connected to philosophy of being.

An Alternate Paradigm for Personhood and Awareness

Culture is an ontological lens that marks the limits of personhood at differing widths of inclusion. The western anthropocentric concept of personhood is in sharp contrast to indigenous cultures such as that of the Ojibwa, for whom animals, such as bears, climatic phenomena such as the winds, objects such as rocks, landscape features such as mountains and heavenly bodies such as the sun and moon can all be persons (Hallowell 1960, 27-31). In Yup'ik societies in Alaska, similarly, some fish are persons (Morrow & Hensel 1992). In indigenous communities in the Yukon, bears are persons who evoke respect (Clarke & Slocombe 2009). Among the Cree, Scott (1989) explains that animals, humans, geophysical events, and spirits can be persons.

For indigenous groups of the circumpolar north and elsewhere, "persons" are not a small select group of rational-minded individuals, rather personhood is ascribed to a vast range of diverse phenomena. Humans are not in a position to demarcate personhood, for they are just one part of a matrix of reciprocating persons, many of whom hold great power. For the Ojibwa, persons all share an inner vital part that is enduring, and an outward form, which can change (Hallowell 1960, 41). Persons of either human or non-human kinds possess autonomy, identity, volition, self-awareness, understanding (Ibid, 41-42), and have the power of metamorphosis (Ibid, 34). Dreams and daily experiences are not distinguished as either fact or fantasy and visitors in dreams are persons of power (Ibid, 40). Stories of persons are told in Ojibwa myths, in which they are addressed as kin, by terms such as "grandfather". The telling of myths is ritualized and seasonal, out of respect for the persons mentioned (Hallowell 1960, 26). In Hallowell's account of his time with the Ojibwa, it seems that non-human persons were held in greater respect than humans, a reversal of Western anthropocentrism.

An inclusive personhood is here tied to an ontology in which the entire world undergoes continual (re)generation through relationships. Each being has a place in a vast web of interconnecting and reciprocal relations, and each does well to honor this web. Lack of humility, boasting, signs of indifference can lead to danger and death, as these breach life's web. A Sufi poem describes the folly of the moon in thinking its light comes from within itself– a deluded and dangerous idea.

Self-awareness and awareness in general derive from a different source in this alternate paradigm than in the West. Navajo people say that air is what provides awareness, thought and speech

(Abram 1996, 237). These qualities that in the West are aspects of independent and autonomous "mind" are in this cosmology, dependent on the world, on breathing *in* of air to create. "Mind" is not internal; it is not "owned" by the self, but is achieved through participation with the "psyche of the land" (Abram 1996, 237). In the Hebrew tradition, air is a sacred, life giving power and thus breath and speech must respect the nature of air and wind. Respect is intricately tied to practices, codes of conduct, and speech as a force of great power that must be reigned in to honor persons who may be affected. The absence of vowels in ancient Hebrew can be understood as a restriction of a similar kind to free-flowing breath, in contrast to breath to produce vowel sounds (Abram 1996, 241). Language as an act of the mouth, throat, and lungs must be restricted to respect the powerful nature of air and breath. These notions of self-awareness are perhaps closer to the dolphins' envelope that Lemieux describes, than to the Western concept.

Implications

What are the implications for individuals in western societies of embracing an inclusive personhood? An approach that is expansive and inclusive of a vast network, a vast diversity of beings both seen and unseen, could not co-exist with industrial farms that raise animals or plants for that matter, with the corporate control of media, agriculture, the economy. The implications for biology and the sciences are difficult even to imagine, although trends in systems and complexity theory offer ideas.

If certain "self-aware" species such as chimpanzees, dolphins, and elephants gain rights of personhood, then what are the implications for our Western culture? Clearly many species would be released from and protected from captivity, enslavement in entertainment venues, and from research labs. Eventually these rights may lead to international laws that protect these species in their own habitats from poaching and other human-caused harms, and which would provide legal frameworks for an animal-focused type of Amnesty International. If the boundaries become looser and if more species enter the inclusion zone, central features of our economies and way of life would change. I cannot begin to explore those implications here. Instead my focus will be on questions of human perception.

For many decades, anthropologists have worked with hunter-gatherers who live in close proximity to other species. Cross-cultural comparisons reveal an ontology that exposes perceptual implications of inclusive personhood. Would personhood include only animals, or only animate life, or would the circle of inclusion extend to all of the earth's forms? Indigenous cultures of the circumpolar north and elsewhere embody an inclusive paradigm, a personhood concept that dissolves "the very boundaries of the animate", and acknowledges "that in a certain sense the entire world is an organism, and its unfolding an organic process." (Ingold 1988, 2).

Though I discuss Ojibwa and other indigenous perspectives on inclusive personhood and participatory states of being, were an inclusive approach to personhood to take hold in the future, the underpinning ontology would not necessarily resemble that of the Ojibwa or any other indigenous peoples of the circumpolar North. Adopting an inclusive model of personhood would certainly alter many aspects of our lives and economies, but would it bring about a radical shift in ontology, in perception? If the Cartesian separation of mind and body and de-valuing of non-humans recedes, what takes its place is certainly unfolding, unknown, and unformed. If time moves in a spiral formation, as Mircea Eliade (1960) reports that people of many cultures perceive, perhaps the shape of this perspective will borrow aspects of this inclusiveness and participation from indigenous ontologies, yet take a new form. From his study of polarities and

the union of opposites in traditional societies, Eliade (1959, 245) dreamed of a future humanism that would form in the cross pollination of cultures. One western tradition reflects this emphasis on participation, and may ultimately be integral in forming a renewed ontological kinship.

German philosopher Edmund Husserl's rejection of positivism in science and the development of phenomenology as a science of experience, provided the West with a coherent critique of Cartesian thinking and offered a radically alternate paradigm that has some parallels with indigenous ontology. Husserl, Merleau-Ponty and others attempted to study the nature of the world in a direct way, without imposing their own assumptions and filters. The world would come to them and they would study this point of contact between the subject and the world, the experience. Husserl adopted the term "intersubjectivity" to describe the connection of subjects through experience, a kind of awareness that extends one's attention and awareness to others. Husserl's student Edith Stein extended the work on intersubjectivity to empathy, which is the source of our experience of "otherness", of other persons as centers of agency (Thompson 2005). In the 1980's and 90's, the discovery of mirror neurons in the premotor cortex and other brain areas of primates, birds, and humans gave these concepts a neurological corollary and some posit these neurons are the centers of self-awareness that is more literally a reciprocal awareness of self and other (Oberman & Ramachandran 2005). Intersubjectivity and empathy have influenced fieldwork in sociology more than in other fields, such as in the natural sciences, yet new work is emerging to suggest applications for research (Ruonakoski 2007). Ultimately these concepts and the methods drawn from them could alter the field of biology and how we relate to non-humans and non-human animals in research and in wildlife management.

Perception

Perception is conceived of differently in various disciplines, and has parallels with the concept of personhood. How one describes and understands perception and personhood within western traditions is a legacy of philosophical and scientific traditions. Is perception an activity of the brain, the body, or both? Is it more passive or active? Perception is also tied to personhood in that an anthropocentric focus serves to block other species and fields of perception; conversely, one can broaden the inclusionary zone for each. If one conceives of personhood as a solely human domain and views the rest of nature as mechanistic, one will not be receptive to perceptions or messages from other beings.

Ingold (2000, 168) describes the philosopher Merleau-Ponty's emphasis on the body as a subject of perception and of an immersion in the world that makes all else possible. Perception is not an overlay of meaning upon sensual experience but is a process of dwelling and immersion in the world; the world and the perceiver are not separated by distinct boundaries. Each reaches into the other. For example, Merleau-Ponty writes (in Abram 1996, 54), "as I contemplate the blue of the sky…..I abandon myself to it and plunge into this mystery, it 'thinks itself within me'."

If I see a rock on the ground as a potentially powerful person, my relation to it will be unique to that perspective. My perception of the rock, according to phenomenology, is fundamental and not determined by my awareness of its personhood, but my receptivity to these perceptions is blocked by limitations in thinking about the rock's possible personhood. One's approach to experience shifts in a world in which categories of animate and inanimate don't exist. If an animal, a squirrel for instance, is a person, how does this change my perception of him or her? First of all, she is not a mechanism fired by chemical responses, as many biologists still assert. She is a person, who has intentionality, has capacities for communication, and an encounter with her may provide

information or reveal new elements of a relationship. On some level, she is kin. What about other "things" in the environment?

Phenomenology offers one of the clearest models of experience within an alternate paradigm from within the Western tradition. Perception is "open activity, this dynamic blend of receptivity and creativity by which every animate organism necessarily orients itself to the world (and orients the world around it…."(Abram 1996, 50). Merleau-Ponty, from whom Abram draws, describes perception as a reciprocal process, a silent conversation with the beings in one's space. Both the perceiver and the perceived are active participants in this conversation. The apples sitting on my countertop may have something to reveal, and if I am open, receptive to my environment, viewing all aspects as animate, I may indeed find a communication happening. Within this framework that feels so foreign, the distinction between animate and inanimate no longer has meaning.

Ingold traces back to Aristotle and Plato our western habit of viewing the world as a series of discrete objects (2000, 96.). The discovery of the DNA molecule provided a tangible answer to the difference between animate and inanimate. Yet in his work with the Ojibwa, Hallowell discovered that many words for stone, tree, bird, pipe, kettle are all within the animate noun category (1960, 22). He explained that not all stones are considered "alive" within Ojibwa society but their aliveness emerges through involvement with others; they are alive through their position within a relational field. This echoes Merleau-Ponty's approach to perception as reciprocal encounter. Experience is a sensory participation, a joining of one's awareness to the awareness in the world (Ingold 2000, 99).

Indigenous epistemology has an almost opposite emphasis from the Western approach to knowledge. Just as the distinctions between animate and inanimate fall away, and "objects" can be alive and move and speak, so do they hold a right to exist on their own terms. Ownership is a mode of relating to the world that holds little value in hunter/gatherer societies. Knowledge in the West is a commodity to be owned, through expensive education, through scientific research that involves grants and financial support, and even experience through travel or reading are connected to luxury time, which has financial prerequisites and implications. Knowledge in many indigenous cultures is part of the cosmos and as such, can only be received or interpreted by an individual, not owned (Wilson 2008, 38). While the individual's claim to ownership of knowledge shrinks in the indigenous paradigm, the potential to build relationships through communicative experience increases exponentially.

Inter-species Communication

Human language became the hallmark of human exceptionalism after Darwin's evolutionary continuum de-throned Cartesian notions of a immaterial mind opposed to mechanical nature (Abram 1996, 78) Our vocal expressions are unique, but not as unique as many in the West believed. As Con Slobodchikoff's prairie dog studies reveal, these members of the rodent order distinguish color of predators in alarm calls (et al 2009), distinguish shape and size of predators (Akers & Slobodchikoff 1999), and possess regional dialects (Slobodchikoff et al 1998). Dolphins, elephants, apes and primates have a broad range of vocalizations that scientists are documenting into species-specific dictionaries (Hauser 2000, Downer 2011, Ferrer-i-Cancho & McGowen 2009). Human language is no longer useful as a criterion of human exceptionalism.

If non-humans are capable of intra-specific vocal language, does this mean that inter-species communication is possible? How does one communicate without a shared verbal language?

Scientist Francoise Wemelfelder has bridged this divide with her body-oriented method of human-animal research, influenced by phenomenology. Wemelsfelder developed an animal welfare assessment system in which observers describe an animal's state, reading body language (Wemelsfelder et al 2001, Phythian et al 2013). Her method is both qualitative and quantitative and statistical analysis of the words gives reliable results. Non-verbal, body-oriented communication is possible with other species.

Indigenous ontologies, epistemologies, and practices point to other means of communicating with non-humans. Animals and plants and other features of living systems are subjects unto themselves, and as such, can be recipients and producers of communications. One implication of inclusive personhood is the broad range of inter-species communications possible, even with "in-animate" aspects of the environment. Donal Carbaugh (1999) writes of the Blackfoot practice of listening in certain landscapes, how the land will speak, and listening can bring healing and information. "The raven, the tree, the mountain lion, all of the animals, plants, rocks, water, trees, breeze, and so on can 'speak' if one just 'listens'". Each thus can be consulted and listened to as a source of important, inspirational, and powerful messages (Carbaugh 1999).

A common language once existed among plants and all animals, according to Koyukon Indians of northwestern Alaska (Nelson 1989, 110). Nature for the Koyukon and for many indigenous people is aware and utters meaningful words, phrases, songs to those who listen. The owls' calls gave them the weather report (Nelson 1982, p. 106), the common loon and the yellow-billed loon's songs are both beautiful and carry meaning. Ice on a lake in the fall utters sounds that hold meaning that Koyukon people understand (1982, 26). Living systems also communicate through non-verbal messages: flight patterns of birds, movements of animals all can reveal success or failure in hunting, speak of possible danger coming.

Kinship and harmonious relationships are nurtured through the terms used for or toward an animal (Clark & Slocombe 2009). In the bear/human relationship, which in the southwest Yukon requires a balanced and reciprocal use of salmon fishing areas and other hunting practices, the social nature of the relationship is stressed through language. "Attention to subtlety", one non-indigenous researcher described, as the practice of respect demonstrated to bears in this region (Clarke & Slocombe 2009). This implies a careful and sensitized approach to animals, almost an intimacy that Westerns might apply only towards family members. This "subtlety" reflects the broad scale kinship that westerners only practice on a fraction of the scale.

Stories and Myths

For hunter/gatherers, stories do not overlay the world and experience with meaning and metaphor, but rather they allow entry into the surface and depths of the world, dissolving boundaries between self and landscape (Ingold 2000, 56). It is through stories that people "become their ancestors and discover the real meanings of things" (Ibid 56). Both the activities of hunting and gathering and the stories, myths, and songs are forms of dwelling in the world allow the world to "open up" to people. Storytelling among the Yukon First Nations build connections where there might be rifts, and dissolve conflicts by providing a larger context (Cruickshank 1998, 3). These stories are told within oral traditions, and as such, carry a different center of gravity than written traditions.

Speaking of animals can be forbidden, unless under certain circumstances, as the animals may perceive the talk as disrespectful (Abram 1996,151). Non-human animals must be honored through various protocols around speech, stories and also conduct. Respect is shown by using

circumlocutions, or an honorific such as "our brother" when referring to bears in the Yukon (Clarke & Slocombe 2009). Animal stories in North America before 1900 were told mainly in late fall and winter when many animals have gone south or were hibernating and would be less alarmed by hearing themselves spoken of. Protocols for respect in speech are especially relevant in hunting, when intentions cannot be spoken of directly, or one can expect a poor outcome (Abram 1996, 152). And some stories recount what occurs when a hunter disregards this etiquette. For Koyukan people, Distant Time and the stories about Distant Time connect human and non-human speech, and inform about moral ties and interconnections (Abram 1996, 163). Distant Time stories express the emergence of the world and relations of one to another (Ibid, 151). Just as fiction, with interweaving plot lines, reveals counterpoints between oneself and the main character and understandings develop, so animals and powerful non-human persons in many indigenous stories weave through plot-lines and integrate and raise awareness among a vast array of persons.

Science and Research: Indigenous Methodology

The scientific method, the separation and objectivity of researcher, the emphasis of quantitative work on p values, the division of a system into parts to analyze, the separation of science and advocacy all are aspects of the current paradigm that could be influenced by an inclusive personhood. Complexity theory, coming from information science, is an example of a holistic approach to knowledge, perhaps representative of what is to come. Indigenous researchers are writing up their own methodology to guide those within indigenous communities. And these methods are intriguing for western scientists and social scientists to contemplate an alternate model.

Research is ceremony, Shawn Wilson writes (2008). Research, he explains, within an indigenous worldview is primarily accountable to relationships and to relations, rather than solely to the pursuit of knowledge. Research honors the relationship of researcher to participants and should benefit participants, improving realities for participants. Thus research should bring about healing.

Working within a participatory model that values all voices, both heard and unheard, indigenous research is collaboration and draws no lines between subjects and researcher (Wilson 2008). Dichotomies of body and mind, human/animal, animate/inanimate are avoided. Experience and participation are valued over expert knowledge. This holistic approach zooms out to context and the zooms in to details. Researchers may include their own experiences, knowing that the project may likely alter their own experience of relationship. This model of research so upends the ivory tower of science that it may take generations to gain credibility, yet aspects of this holistic approach are appearing in the biological sciences (Marino & Frohoff 2011).

Conclusion

The circle of inclusion for personhood expands with the synergy of scientific discoveries of animal minds and emotions and increased awareness of the limits of human-centered society. Experiences and communication with non-human animals have gained in media exposure and in value. The bears that frequent the woods just behind my house teach me about co-existence with a large and awe-inspiring mammal. The woods are merely a city forest and I marvel at the small area these bear families live in. When I encounter the mother with her cubs, as I do frequently in summer, I remember what I have read about indigenous approaches to communicating with bears.

Instead of fleeing from the spot, I speak to the bear in tones of respect, telling that I pose no threat but am curious and would like to see and know more of her life. We have had long sessions of watching one another from a short distance and she has gotten comfortable enough, even with cubs nearby, to turn her back away and stare at other noises that seem more interesting. I am such a naïve and inexperienced friend to this bear, but I crave more time, more experiences. I am touched to my core through the privilege of her acquaintance.

Personhood is extending to other species and gradually more than the most "self-aware" species may enter the circle. Distinctions of "most intelligent", "most aware", fall away in the face of real encounters with animals in one's life. As experience and alternate modes of knowledge gain value in the West, and align with mainstream knowledge systems, animals and other parts of life systems will become persons and have value. Anecdotes about experiences with animals in the plural will become data and will also become stories to inform, receive and hold the values of respect towards animals and other kin.

Acknowledgements

I wish to thank Tim Ingold for his generous help with the manuscript. I also wish to thank my friend, Donna Fishbein, for conversations that always enrich my thinking.

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