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Evolving Notions of Nonhuman Personhood: Is Moral Standing Sufficient?

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Abstract

Decisions regarding the attribution of personhood to nonhuman animals have implications not only for the rights held by a particular species but also for the moral obligations of humans as moral agents. Since humans decide which species are accorded moral standing, thus becoming candidates for legal standing as legal persons, we need to be aware of our own vested interests in where the boundaries of duty are drawn. This paper argues that simple determination of moral standing is not sufficient to induce relevant changes in moral behavior. It examines six problems that emerge for us in determining the personhood of nonhuman animals: identifying which capacities we believe to be morally relevant, separating the identification of capacities from the duty consequences, designing appropriate methodologies for assessing morally relevant capacities in nonhuman animals, identifying relevant claim rights for nonhuman animals, resolving competing moral interests among species and between nonhumans and humans, and ensuring appropriate moral behavior. The conclusion of this examination is that we have a long way to go in order to be consistent in our moral behavior.

Hidden in discussions of personhood is a vested interest that is seldom acknowledged: if we attribute moral standing to a group or class of nonhuman animals, we create accompanying moral obligations for ourselves as humans. The concepts of morality with which we are dealing are human concepts, not species-neutral concepts. Moral considerability, in the context of nonhuman personhood, is asymmetrical in that nonhuman animals may have moral claims on humans without humans having reciprocal claims on them.

Discussions of personhood are *not* about who is a moral agent – by definition, humans are. Rather, any exploration of moral standing, which underlies personhood, is an examination of the boundaries of our moral duties to other entities, not of theirs to us. So why do we need to accept or impose any restrictions on our actions? Is the ascription of moral standing to various nonhuman animals enough to discharge our ethical responsibilities to those other species or does actual behavior change need to follow?

Moral Standing and Legal Standing

Our understanding of what constitutes personhood in nonhuman animals determines whether or not we attribute moral standing to those animals, which in turn shapes, or should shape, our behavior towards that class of animals. Both our ethics and our legal system are based on notions of moral standing, distinguishing between two primary categories: persons with intrinsic value and due our respect, and things available for our use without regard to their interests or preferences.

We apply different standards of conduct and censure to ourselves and others if we believe we are interacting with a "thing" (an entity with no moral standing) or with a "person" (an entity with moral standing). So being a "person," or "personhood," becomes about having moral standing.

When we talk about a nonhuman animal having moral standing (or moral status), we are referring to whether or not we feel we ought, when making moral decisions, to take that animal's welfare into account for the animal's own sake and not merely for the benefit of ourselves or someone else (Jaworska and Tannenbaum 2013). Acting unjustifiably against the interests of an animal with moral standing, so as to cause harm to that animal, is considered both wrong and as wronging the animal.

If we examine the concept of moral standing more closely, we find that a nonhuman animal has moral standing *if*, when making moral decisions, *we feel we ought to* take that animal's welfare into account for the animal's own sake. The critical words above are "if we feel we ought to." The assignment of moral standing is a social choice, not an inherent attribute independent of human preferences, and reflects an often-unspoken set of values. So recognizing how we make the choice to assign moral standing becomes relevant.

The concept of moral standing is intricately related to that of legal standing. Legal standing refers to the ability of an entity (or its advocate) to demonstrate that: (a) the entity has or will certainly suffer harm from a particular action, (b) the harm is directly attributable to the party engaged in that action; and (c) it is possible for the court to redress the injury. Since only an entity with moral standing can, by definition, experience harm or injury, moral standing is a necessary condition for legal personhood.

The assignment of legal standing, too, is a matter of social choice. For example, corporations (as groups of humans, or natural persons) have been designated as legal, or juridical, persons. "The law then can, if it chooses, create persons; it is not merely a passive recorder of their presence" (Midgley 1985, 53).

Whether or not we grant legal standing as a person before the law (based on having ascribed moral standing), has significant and possibly mortal consequences. Matthew Hiasl Pan is a case in point. This chimpanzee was abducted from Sierra Leone in 1982 and transported to Austria where he was placed in a shelter. In 2007, when the shelter threatened to go into bankruptcy and close, friends of Matthew tried to intervene and establish a fund for his care. The Austrian courts found that Matthew existed only as an

asset of the shelter and had no legal standing to either receive funds or even to have a legal guardian appointed who could receive funds in his name. The case was appealed unsuccessfully to the European Court of Human Rights.

> If, however, Matthew were recognized as a person, the damage done to his life would count and he himself could start legal procedures against those responsible for it. He could sue the animal dealers, who abducted him and killed his mother. He could sue the company, who paid for his abduction in order to do experiments on him. And he could sue the governments of those countries, who gave permits for his abduction or for those experiments. All those are responsible for his situation, and all those should therefore be held liable to undo the damage as best they can (Balluch 2008).

Based on all of the scientific evidence available regarding the complex cognitive functioning and emotional intelligence of chimpanzees, Matthew qualifies for moral standing and hence for personhood; however, he faces an uncertain future because that status has not been acknowledged. So the matter of moral standing and personhood is not simply philosophical; there are life-altering consequences.

Moral Standing and Inalienable Rights

A nonhuman animal with moral standing is automatically a "rights holder" or a possessor of certain inalienable rights. By "inalienable" we mean that the rights cannot be taken or given away, though even with other humans they are all too often ignored. When we think about the possible rights of animals, we are primarily concerned with negative rights or claim rights – i.e., rights that automatically impose a duty on humans to refrain from acting in a manner that would violate that right.

What might those claim rights be? Again we humans are the ones who would define them, and they might include:

- Freedom from the threat of unnatural death (e.g., from hunting, research, etc.)
- Freedom from slavery or being owned by another
- Freedom from kidnapping
- Freedom from torture or experimentation
- Freedom from servitude or inhumane treatment
- Freedom to live in their own natural habitat

In the context of legal rights, the first four rights listed above are encompassed in the concepts of bodily liberty (freedom from confinement) and bodily integrity (freedom from physical harm or harassment). Whether we would want to accord such rights for our companion animals is an illustration of how intertwined our duties as a moral agent and our vested interests can become.

Problems with Determining Personhood

As a human race, we have been gradually broadening who we would consider to be "persons with moral standing" – i.e., groups or classes of entities with rights towards whom we have a moral duty or obligation. We generally consider all humans to be persons with moral standing, though that is not true in terms of the treatment of the 29.8 million humans currently enslaved around the world (Fisher 2013). We also have a category of entities that we generally agree are things (e.g., objects such as rocks, shoes, cars, buildings, etc.).

But there is a vast middle ground in which various scientists and philosophers have offered different definitions and frameworks for defining personhood. The boundary between "person" and "thing" is not that clear cut. Instead, we experience what phenomenologists (see Laughlin 1993) refer to as "fuzzy sets," or a middle arena of gradual transition from thing to person. Zadeh (1965, 339), who originated the fuzzy set concept, indicated that "such a framework provides a natural way of dealing with problems in which the source of imprecision is the absence of sharply defined criteria of class membership." Where we choose to place the boundary line between species classified as persons, to whom we owe a moral duty, and those to whom we do not is very inconsistent and is influenced by our values and our vested interests.

In addition, we are being confronted with a growing scientific literature on the unsuspected capacities of a wide range of species. Bekoff (2013) has summarized research demonstrating sentience not only in mammals but also in animals as diverse as ants, spiders, bees, chickens, birds, fish, and octopuses. Dunayer (2013) expands the list to include a range of invertebrates such as crustaceans, insects, and even flatworms. She concludes

> there's strong evidence that all creatures who possess a brain are sentient and growing evidence that all creatures with a nervous system are sentient…Evolution would be inexplicably discontinuous if only humans, only mammals, or only vertebrates could suffer (Dunayer 2013, 35).

Embedded in the scholarly literature, though not always explicitly acknowledged, are at least six problems related to that fuzzy area. These can call into question whether the simple designation of moral standing is sufficient to result both in identifying all those to whom we have a moral duty and in ensuring that claim rights are not violated.

#1: Identifying morally relevant capacities

Humans have been accustomed to considering themselves unique among species, differentiated by their rationality or complex cognitive abilities. Since researchers began demonstrating that other species (particularly chimpanzees, elephants, dolphins, and whales) are also intelligent, as well as self-aware, various writers have suggested candidate capacities that could distinguish humans from nonhuman animals.

DeGrazia (2008, 193) argued that "personhood…is a cluster concept that serves as a summary placeholder for other concepts such as moral agency, autonomy, the capacity for intentional action, rationality, self-awareness, sociability, and linguistic ability." So are these the necessary and sufficient, morally relevant capacities? Is linguistic ability, for example, constrained to a language spoken or

understood by humans? Could it be a chemically- or color-based language rather than being an orally- or manually-based language? Could that language exist in a visual or auditory spectrum outside of the ability of humans' usual capacity to detect?

Taylor (1985, 97) has proposed that

> where it is more than simply a synonym for "human being," "person" figures primarily in moral and legal discourse. A person is a being with *a certain moral status*, or a bearer of rights. But underlying the moral status, as its condition, are *certain capacities*. A person is a being who has a sense of self, has a notion of the future and the past, can hold values, make choices; in short, can adopt life-plans. At least, a person must be the kind of being who is in principle capable of all this, however damaged these capacities may be in practice.

As we sort through the various candidates for capacities related to moral standing, we can see that the focus has gradually shifted over the centuries from rationality to sentience, from intelligence to the ability to suffer or feel pain. We can think of *sentience* (the ability to perceive and feel) as a threshold capability that distinguishes at the most basic level between those with and those without moral standing. Without sentience, the argument goes, no harm can be felt and thus could not have occurred.

Is simple sentience enough to confer full personhood with its inalienable rights? Probably not. Probably it is enough only to invoke a duty of care, in the same manner that we owe a duty of care to infants or persons with severe developmental disabilities who are not able to make decisions for themselves. Thus, nonhuman animals with only sentience could be considered as having limited moral standing but not actual personhood. Based on current research, crabs and lobsters would fall into this category of limited moral standing, with moral implications for the human food industry (Magee and Elwood 2013).

Once past the threshold of sentience, what other capacities matter and how much do they matter? There are three other categories that we can consider as worthy of exploration: self-awareness; agency, including cognitive abilities; and social relationships or culture. As a test of this approach, we can review the research from a range of different nonhuman species.

Self-awareness: The most common measure experimentally of self-awareness has been the mirror test. Does the nonhuman animal display behavior indicating that they are aware that the image in the mirror is themselves? The answer is clearly "yes" for elephants, chimpanzees, dolphins (Reiss and Marino 2001), and magpies. However, the mirror test methodology relies on visual cues, which predominate in human experience. There are other species, such as bears and dogs, who rely primarily on a sense of smell and so would need to be evaluated with a different methodology.

More important, though, than simple self-recognition is being what Regan refers to as subject-of-a-life (1983). Does the entity have a sense of continuity over time, of engagement in a life process? If the answer is "yes," then harm would limit or cut short those future possibilities. A corollary of that sense of having one's own perspective is metacognition, which recent research has demonstrated to occur in chimpanzees (Beran et.al. 2013).

Agency: Much of the focus of research has been in the arena of intelligence, decision-making, and problem solving, and the compilation of research articles, edited by Corbey and Lanjouw (2013), provides ample evidence that elephants and cetaceans are very intelligent, second only to humans. Chimpanzees

(along with other great apes) have demonstrated that they are intelligent, good problem solvers, and often better than humans at math. Black bears can also count as well as primates (Dell'Amore 2012). Crows are at the top of the avian IQ scale (Rincon 2005) as well as being very handy with tools (Greenemeier 2007). Even octopuses have been proven to have excellent problem-solving ability as well as a range of strategies for evading predators, including changing shape and color (De Waal 2013).

Social relations: Wild elephants live in extended matriarchal groups with complex network of individual relationships (Gruen 2012). They display a range of behavior to assist each other. When members of their herd die, they engage in mourning rituals. In fact, dozens of elephants arrived at the home of Lawrence Anthony, the late "elephant whisperer," to mourn his death (Kerby 2012).

Chimpanzees, too, are highly social and have been shown to starve themselves rather than inflict pain on another chimp. When given the choice, they preferred outcomes that rewarded both themselves and their apparent opponent, as did rats (De Waal 2013). Orangutan mothers stay with their young for eight to ten years, nurturing them (Gruen 2012).

Dolphins and whales live in highly complex societies, with cultural transmission of learned behavior (Marino 2013). They also play together, cross species (Bekoff 2012b). Humpback whales have been observed helping a baby grey whale in danger from a pod of orcas (Bekoff 2012a).

Of all the species reviewed, only the octopus is not social. This may be related to its brief life span, averaging three years.

As the research accumulates, we are finding more and more evidence of a wide range of capacities that humans associate with personhood which are demonstrated by an extraordinarily wide range of nonhuman animals (Hamilton 2011). Does this mean that actually all sentient animals have moral standing? Would we be willing to accept such a broad mandate of duty?

#2: Separating capacities from consequences

Since moral standing is socially determined, one of the complicating factors is that declaring a nonhuman to be a (claim) rights holder results in a limitation on humans' liberty to act. While we may recognize and intellectually accept scientific evidence of sentience, consciousness, complex cognitive functioning, or future orientation, that does not mean that we are prepared to act towards that species of nonhuman animals as we would towards another human. For example, scientists are divided on whether lobsters feel pain when plunged into boiling water but agree that they do cringe (Switek 2013) and would certainly condemn plunging a human into water of killing temperatures. The intelligence and social culture of elephants is not open to dispute, though, and still zoos and other "owners" keep single elephants chained to stakes in concrete yards separated forever from their family herd, a practice that would be loudly condemned if perpetuated on humans.

If debates within the scientific community are examined, humans' vested interests are clearly at play. While there is clear evidence of the grounds for moral standing for great apes, their use as "things" is still of paramount importance to some. The following statement has been attributed to Professor Blakemore of the Medical Council of Great Britain: "It would be necessary to perform research on great apes if humans were threatened by a pandemic virus that afflicted only human and other great apes."

Our own preferences and habits often intervene and slant the data we receive so that we can buffer ourselves from any need to change. One of the methods we use is in our choice of vocabulary. "Culling" has a less disturbing sound than "murdering" or "slaughtering." How we can achieve objectivity or awareness without reverting to vested interests is unclear.

#3: Designing appropriate methodologies

Immediately, at the threshold of sentience, we run into methodological difficulties. How are we to measure the sentience (or indeed any other attribute) of entities quite different from ourselves? Newkirk (2012) has pointed out that

> for years we blithely believed that humans were the only species to use tools, until researchers documented that wasps were using pebbles as hammers, octopuses were carrying coconut shells as portable hiding places, crows were using sticks to dig in the ground for grubs and many other examples. The mathematical abilities of fish have proved to be on a par with those of monkeys, dolphins and bright young human children.

It is easy to anthropomorphize and miss what is actually occurring. The 2012 Cambridge Declaration on Consciousness addressed some human biases:

> Young human and non-human animals without neocortices retain these brain-mind functions. Furthermore, neural circuits supporting behavioral/ electrophysiological states of attentiveness, sleep and decision making appear to have arisen in evolution as early as the invertebrate radiation, being evident in insects and cephalopod mollusks (e.g., octopuses)….The absence of a neocortex does not appear to preclude an organism from experiencing affective states (Newkirk 2012).

There has been a recent controversy over whether or not fish feel pain, the resolution of which has clear implications for the sport of fishing. One group of scientists has announced that it is not possible for fish to feel pain because they do not possess a neocortex (despite the Cambridge Declaration on Consciousness), which is involved in humans' experience of pain; instead, they assert that only nociception occurs (Rose et.al. 2014). Other scientists assert that they have controlled for nociception and fish do indeed feel pain, just processed differently than in humans (Braithwaite 2010; Chandroo et.al. 2004; Randerson 2008)). Similar issues have arisen in regard to the intelligence of octopuses as they rely on a nervous system that is fundamentally different than that of vertebrates.

There are also prejudices that affect our evaluation of the dynamics we witness. The most pervasive is the association of "sameness" with personhood and a rejection of difference. We more readily attribute personhood to chimpanzees who are structurally similar to us, while distancing ourselves from elephants and dolphins who are actually more intelligent and more similar to us in emotional intelligence. Marino (2013, 104) has commented about dolphins:

> Their intelligence, self-awareness, emotional sophistication and social complexity mean that they are similar to us…But cetaceans (unlike great apes, for instance) look and move differently, lack changes in clearly recognizable facial expressions, communicate in strange modalities, live in a very different physical environment, and seem to possess a level of social cohesion foreign even to us.

Indeed, in the midst of the horrendous annual slaughters in the dolphin hunt drives, dolphins call out to each other in panic and pain and yet still appear to us to be smiling.

Because of our focus on sameness, we tend to measure other species against a human yardstick. We affirm that they have language if they learn our language (without giving any thought to the fact that our language would be a second or third language for them). We assume, in the design of our experiments, that visual cues are the primary mode of interacting with the environment. We privilege species that use hands or feet as we do.

It has become clear that we need to evaluate attributes within a meaningful context for the nonhuman in question. Researchers are becoming more creative and less anthropomorphic in their approaches. De Waal (2013) has provided some intriguing examples: Because elephants use their trunks for smell, they are unlikely to reach for a stick (as a chimpanzee or human might) and block that sense organ if they can find other alternatives to solve a problem. Chimpanzees can tell the faces of other chimpanzees apart, though they might not distinguish as well between human faces. Elephants are clearly able to demonstrate self-awareness once the mirror being used is increased in size to 8 feet by 8 feet.

We need to be careful not to assume that just because we are not finding a capacity it isn't there. The shortcoming may be our own approach to measurement.

#4: Identifying relevant rights

In the debate around what constitutes personhood, it is clear that being of intrinsic value or being acknowledged for one's own sake is a central tenant. Yet we easily slide into defining moral action in terms of its benefits to the moral agent rather than as a duty towards a rights holder. The initial movement to prevent cruelty against animals had its roots in a belief that exhibiting such cruelty would brutalize humans, rather than in any concern for the animals themselves. A similar sentiment continues in virtue ethics today.

Once past the bias towards our own perspective and the benefits to ourselves, we need to determine what claim rights usually accrue to a being with moral standing. We can compare two declarations by scientists to see how the debate has evolved.

In 1994, the *World Declaration on the Great Apes* was launched as an attempt to secure a recognition of entitlement by chimpanzees, orangutans, gorillas, and bonobos to three basic claim rights: the right to life, the right to individual freedom protection, and the prohibition of torture. The 2010 *Declaration of the Rights of Cetaceans: Whales and Dolphins* went considerably further (see also Pyys.org 2010):

- Every individual cetacean has the right to life.
- No cetacean should be held in captivity or servitude; be subject to cruel treatment; or be removed from their natural environment.
- All cetaceans have the right to freedom of movement and residence within their natural environment.
- No cetacean is the property of any State, corporation, human group or individual.

- Cetaceans have the right to the protection of their natural environment.
- Cetaceans have the right not to be subject to the disruption of their cultures.
- The rights, freedoms and norms set forth in this Declaration should be protected under international and domestic law.
- Cetaceans are entitled to an international order in which these rights, freedoms and norms can be fully realized.
- No State, corporation, human group or individual should engage in any activity that undermines these rights, freedoms and norms.
- Nothing in this Declaration shall prevent a State from enacting stricter provisions for the protection of cetacean rights.

How far are we as humans willing to go in granting rights to nonhuman animals? So far we have talked only about negative or claim rights, what we must refrain from compromising. Are we also interested in considering positive rights such as being treated with respect and dignity, being allowed to develop one's own personality, receiving just and favorable remuneration for work (which could provide support in old age), the right to rest and periodic holidays, and the right to develop within one's own community?

#5: Resolving competing moral interests

In real life, we frequently have situations where the rights of one group come into apparent conflict with those of another. Given all of the scientific evidence, we can no longer assume that human interests are always most important. How are we to decide what takes precedence?

Up to this point, we have been concerned primarily with moral considerability, or whether a species has or does not have moral standing. We can turn now to moral significance or how much weight we give to the possession of particular capacities, to which interests are pertinent to moral standing (Singer 1975), to the circumstances in which those interests occur, and to the relationship existing between the entities involved. While a detailed examination of how we might value different interests or weight relationships could be useful, again we can point out that these choices are based on our own values hierarchy and are intricately bound up with our vested interests. In general, as moral agents we are expected to ensure that, of all interests to be considered, more are satisfied than frustrated.

Gruen (2012) has noted:

> That non-human animals can make moral claims on us does not in itself indicate how such claims are to be assessed and conflicting claims adjudicated. Being morally considerable is like showing up on a moral radar screen – how strong the signal is or where it is located on the screen are separate questions.

Competing moral interests can occur between any species. Most troubling for us are the conflicts between humans and nonhuman animals. Crows, for example, are clearly deserving of moral standing based on their intelligence and self-awareness yet they are an opportunistic species and are generally regarded as nuisance animals. In the U.S., crows are protected as migratory birds and several species have been listed

as endangered. This has not prevented individuals and communities from launching campaigns to confine, kill, poison, immobilize, or harass crows.

These questions bring us up against our values again. How would we ever decide to privilege a nonhuman species over humans?

#6: Ensuring moral behavior

A key challenge in discussions of personhood beyond the human is that, as humans, we are engaged in a conflict of interest. Where we draw the boundary between person and thing will determine what duties we then assume as moral agents. So there will be a temptation to draw the boundary within our comfort zone or the zone of our present behavior.

Once the boundary is drawn, is the recognition of moral standing a sufficient condition to reverse centuries of anthropocentrism? Threaded through recent debates around the concept of personhood as a basis for the moral standing of nonhuman animals is an assumption that stipulating moral standing will result in a sense of moral obligation and treatment of those nonhuman animals in a manner that is respectful of their right to determine their own destiny. Unfortunately, the issue is not that simple. As we have seen in other areas of prejudice, such as racism and sexism, simply stating that an individual or group has moral standing has not ended the rampant bigotry and violence that still exists (Anderson 2010).

The complicating factor is the fact that anthropocentrism (in a similar fashion to racism and sexism) is not unidimensional. Rather, its underpinnings are complex. What we could call "hostile anthropocentricism" is easily recognized and, while still widespread, is also clearly unsupported by current science. This attitude holds that humans are superior and have the right to dominate and exploit nonhuman animals at will, not only out of apparent need but also for their own entertainment and the pleasure derived from gratuitous killing (e.g., elephant hunts, dolphin drives). It presumes that there is no overlap in capacities or moral standing between humans and all nonhuman beings, and any apparently intelligent action by a nonhuman is explained away as instinctual. A modified version of this attitude is expressed when humans reserve the right to experiment on nonhumans "only if necessary to save human life."

There is little doubt, at least in Western cultures, that personhood in both the legal and moral sense extends among humans to all ethnic groups and to both genders. However, the simple assertion of moral standing and thus being a rights holder has not prevented ongoing discrimination and violence against women continuing to be the number one human rights violation worldwide. We can draw on the research conducted on prejudice to identify four dynamics that often play out despite the affirmed moral standing of the other party:

Dismissiveness: This attitude assumes that, while nonhumans may have moral standing, their needs and interests are too trivial to be of concern. For example, dolphins are being used by the U.S. military to place mines on the hulls of enemy vessels without any regard to their possible feelings about participating in violence, though there is research evidence of their collaborative, rather than aggressive, nature.

Stereotyping: This attitude assumes that all members of a particular group or species have the same capacities and interests. No recognition is given to individuality or the possible interests as subject-of-a-life. For example, dogs of a particular height and temperament are selected and trained as guide dogs for

those blind or visually impaired without regard to whether or not the individual dog is interested in pursuing such a vocation.

Instrumentality: This attitude views nonhuman animals primarily in terms of their usefulness to humans. The nonhuman may be cared for with compassion; however, the best interests of humans come first. For example, although elephants are highly intelligent and social, they are typically segregated from their family units and trained (often painfully) for entertainment or physical labor.

Benign anthropocentrism: Most subtle of all is this paternalistic attitude that views nonhuman animals as overlapping with humans in capabilities but less mature and inferior or deficient in some manner. The human appears to act in the best interest of the nonhuman but is actually acting in their own best interest – motivated by wanting to appear compassionate and caring while actually refusing to see the nonhuman as an active agent. Unfortunately, relationships with many companion animals fall into this category.

Where To From Here?

It is clear that, over time, our attitudes change and we become accustomed to a shift in the moral landscape. We used to assume human slavery was an economic necessity. Now human slavery is anathema in most social circles. We used to decry anti-smoking regulations as infringements on our rights. Now anti-smoking regulations in public spaces are commonplace in western societies. We used to assume that animal experimentation was justified. Increasingly, animals are being released from research labs and transferred to national sanctuaries (Associated Press 2013).

We can trace this shift in attitudes as moving from viewing nonhuman animals as resources to be exploited to viewing them as resources to be protected for human use to viewing them as persons with moral standing, equal partners deserving of respect. As De Waal (2013) has stated:

> We have moved from viewing animals as instinct-driven stimulus-response machines to seeing them as sophisticated decision makers.…This is no insult to human superiority. It is long-overdue recognition that intelligent life is not something for us to seek in the outer reaches of space but is abundant right here on earth, under our noses.

Does this mean that we can simply wait for the tides of time to unfold a new and accepted definition of personhood for nonhumans? Unlikely. We humans have too much of an attachment to the status quo. There will need to be a compelling reason to make the shift.

Assigning personhood to a nonhuman animal implies that that entity has become a rights holder and that we now have a moral duty to uphold those rights. The implications are far-reaching. They would entail a fundamental shift in the manner in which we interact with nonhuman animals. As an example, Byrne (Smet and Byrne 2013) has said that

> elephants seem to understand us humans in a way most other animals don’t. Elephants are cognitively much more like us that has been realized, making them able to understand our characteristic way of indicating things in the environment by pointing.

At the same time, we have received the horrifying news that 11,000 forest elephants have been slaughtered in Gabon’s Minkebe Park since 2004 (Wildlife Conservation Society 2013).

In fact, we fail in our moral duty collectively, on a daily basis, to a range of nonhuman persons by actions such as separating individuals from family units in particular, and from others of their kind in general; killing or maiming millions each year for research, sport, food, or as a consequence of human activities such as sonar testing; enslaving millions each year in inhumane living conditions; and decimating or polluting their natural habitats. Militaries continue with sonar testing that kills or deafens thousands of whales and dolphins a year (Llanos 2012). Another example of how our behavior can have lasting negative consequences is demonstrated by the disruption of key decision-making abilities in wild elephants when they are forced to live through first the killing of members of their herd and then the experience of growing up without older role models (Shannon et.al. 2013).

Our moral duty may not stop at claim rights for nonhuman animals. What about plants? Plants are even more different from humans than animal species. They do not have a brain or a neuronal network, but their signaling pathways may provide a biochemical basis for learning and memory (Christmas 2007; Koechlin 2009; Martinelli 2007). The Swiss Government has already enacted a Bill of Rights for Plants (2008) that requires that plants be treated with respect and that their reproductive ability and lifestyle be protected. This Bill is based on scientific evidence of plants' autonomy, self recognition, capacity for complex, adaptive behaviors, the ability to communicate (chemically) to warn others and enlist allies, and the management of a complex social life.

Regarding our ecosystem or biosphere, in 2001 scientists issued the Amsterdam Declaration on Global Change stating that the planet was a self-regulating biosphere. Bolivia has already created a Ministry of Mother Earth (Jamasmie 2012) and is lobbying the international community for a Universal Declaration of the Rights of Mother Earth (2010).

Part of being human is acting ethically and assuming all relevant and appropriate moral duties. If we were serious about our moral duty towards nonhumans with moral standing, then we would need to examine the ways in which we presently infringe on at least the negative or claim rights of nonhuman persons. If there are animal species that we are exploiting or even simply minimizing the importance of their legitimate interests, we need to be informed and begin to change appropriately.

What will make a shift possible? Education is part of the answer. For some, the data itself will create enough dissonance that they will move towards change. But we need to be realistic about the scope of the issue. Human-to-human respect has a long way to go, to say nothing of human-to-nonhuman. We do not yet have a shared experience of respectful co-existence with other species as equals. Habits of domination, exploitation, and paternalism are well-ingrained in us all. We will need some public commitment to new patterns of relationship and models that can be practiced and adopted.

After a period of voluntary change, we will need to move in the direction of legislative enforcement. We are used to laws against physical cruelty to animals, but there are other claim rights to consider. New laws will be needed, based on moral/legal standing, not just on protection for the good of humans.

The science is clear. We know that we need to begin living with an awareness of a multitude of nonhuman persons around us. Will a determination of moral standing be sufficient to bring about the attitudinal change needed? No, it is necessary but not sufficient. We will need to reach beyond old stereotypes and prejudices and embrace a new era of valuing difference.

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