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Anthropocentrism's Antidote: Reclaiming Our Indigenous Orientation to Non-human Teachers

Four Arrows, Jessica London Jacobs, Sage Ryan
Fielding Graduate University,

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Abstract

This semi-dialogic essay argues that the traditional wisdom of Indigenous Peoples must supplant the reification of human centeredness currently existing in Western education, if we are to restore social and ecological balance in the world. Our father-daughter-grandson reflections may help to illuminate the epistemology of our assertions and research conclusions. Such authorship represents the multi-generational approach to teaching and learning typical in traditional Indigenous cultures. We begin by attempting to explain how and why dominant rhetoric regarding diversity is delusional and dangerous. We then offer specific ideas for how Western schooling can move toward a more authentic understanding that is the basis for indigenous education; one that embraces a non-hierarchical philosophy about sharing, connecting to and learning from the non-human ecology that surrounds us.



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1

Introductions

2 With humility remaining an important constraint, American Indian presenters
3 realize that personal experience is one's only real claim to "knowledge." Therefore, we
4 typically introduce ourselves at the outset of a speech to help verify that we "speak from
5 the heart."

6 **Four Arrows:** *Wahinkpe Topa*, or Four Arrows, is my "Indian" name, given to
7 me in a sacred Oglala ceremony. Although my blood is Cherokee/Creek/Scots/Irish, my
8 mother raised me to dismiss our Indigenous heritage. Her Cherokee father had committed
9 suicide and she was taking no chances. Fate brought me to the Lakota Indian reservation
10 in Pine Ridge, where I eventually served as Dean of Education at Oglala Lakota College
11 while fulfilling my Sun Dance vows. I now live in Mexico in the winter and Canada in
12 the summer, teaching doctoral students via a distributed learning model for Fielding
13 Graduate University. Although I have read and written many books, chapters and articles,
14 the wild horse and the sea have been my greatest teachers.

15 **Jessica:** My middle name is London, named after Jack London. Dad admired Jack
16 London's writings about nature and animals and wanted to inspire me to live with a great
17 respect for other creatures. I suppose it worked. I am most alive when immersed in the
18 natural world and am saddened that I have to work to make that feeling available to my
19 children. I send them to school for six hours per day, six hours at a hard desk chair in a
20 room with artificial light and controlled temperature. As a virtual public high school math
21 teacher, as a parent, and as a citizen of planet earth, I hope that the research and
22 discussions that have gone into this article, and those that educators will continue as a
23 result of it, will help get our world back to a place of true balance.

24 **Sage:** I am very attached to animals (especially wild ones), and am excited about
25 this article. I mostly eat a vegan diet. This is not only because I love animals. There are
26 many reasons, but the most important is my disgust with the way we treat animals that we
27 raise and prepare for our eating. In general, the way that most people feel about animals
28 needs to change. To be the kind of kid I am in a world where there is so much
29 anthropocentrism (I admit that I just learned this word, but now I use it often when I try
30 to teach my friends about being too much about only people.) I am excited that someone
31 had the great idea to set up a series of articles like this to challenge how education
32 ignores the importance of living creatures besides humans. As a fifth-grader, at ten years
33 of age, I hope this article will get many teachers to help create a new subject in schools
34 that I would call "Our Non-human Teachers." Better yet, I hope that our human teachers
35 will refer to the non-human ones for *all* the subjects they teach!¹

¹ Although Sage just learned the word, "anthropocentrism," for this article, he now regularly refers to it. As lead author, I mention this here because one reviewer thought that his words in this piece might have been augmented by his adult co-writers. In fact, the phrasing in Sage's portions is his own. Sage is admittedly exceptional in his language abilities for a ten year old child. However, since he was seven, he has been a professional child actor, having been directed by Woody Allen and Robert Zemeckis and having worked on stage and screen with many famous people. His ability to do a cold reading for an audition; perform in front of thousands; or engage an adult in a scientific argument tends to make him "ten going on fifty."

1 **Four Arrows:** We also wish to briefly introduce the concepts we intend to
 2 address in our dialogue so the reader might have a more grounded sense about the
 3 problems we hope to address. These problems, essentially, include or relate to the
 4 following assumptions. We believe:

- 5
- 6 • Our world is dangerously out of balance, with virtually every life
 7 system in decline.
- 8 • The great majority of Indigenous cultures throughout the world lived
 9 in a peaceful, ecologically balanced society largely because of cultural
 10 values they came to embrace that were based on close observations of
 11 the natural world.
- 12 • Western civilization has corrupted these wise observations and
 13 education tends to maintain the corruption.
- 14 • Character education in schools is a movement largely designed to
 15 maintain the status quo assumptions about hierarchy and human
 16 supremacy.
- 17 • Non-human entities, from rocks to raccoons, have an intelligence
 18 equal to or greater than that of humans and should serve as "teachers"
 19 for us.
- 20 • Educational systems must change radically to return to a more
 21 authentic commitment to diversity in all of its forms if we are to regain
 22 balance.

23 **Delusions of an Anthropocentric Culture**

24 **Four Arrows:** Most critical educators support alternatives to didactic instruction,
 25 especially the more obvious hegemonic and oppressive versions of it. We usually, if not
 26 always, prefer some “student-centered,” “child-centered,” or “learner-centered”
 27 educational environment, one that focuses on student needs, abilities, interests and
 28 learning styles while engaging students more actively and experientially in the learning
 29 process. The Arizona Faculties Council expanded the definition of learner-centered
 30 education by adding such concepts as “research and discovery by students and faculty
 31 together” and “service-learning experiences” (Arizona Board of Regents, 2000). We did
 32 find one educational organization that referred to “human-centered” learning- the
 33 Guerrand-Hermes Foundation for Peace. The GHFP website is “created as a resource to
 34 explore the essential qualities and practices of a truly human-centered education
 35 (GHFP).” Most of this organization's precepts dovetail with the above-named
 36 approaches, although they do add the notion of *ubuntu*—a concept indicating the
 37 importance of generosity and contributions to community. Presumably, GHFP also
 38 assumes the community is also human. In any case, whether the above terms are used, or
 39 whether we refer to progressive, holistic, experiential or constructivist education, the
 40 general idea remains consistent. All of these approaches are strictly “human’-centered in
 41 practice.

4 CRITICAL EDUCATION

1 In this article, we assert that the well-intended human-centered alternative to
2 authoritarian-based education, although less oppressive of humans, is none-the-less a
3 poison in need of an antidote. We do not believe these progressive approaches to
4 education are problematic in the ways authors such as the conservative educator, Diane
5 Ravitch contends. She argues that child-centered education has been responsible for the
6 decline of Western civilization (2000). We believe that it is the anthropocentric
7 assumptions of Western civilization she prefers that are largely responsible for the
8 imbalances in our world. Although child-centered approaches have mitigated some of the
9 damage didactic education has caused to human freedom and dignity, both progressive
10 and conservative models still inject the poison of anthropocentrism. For example, the
11 well-known John Dewey Project on Progressive Education at the University of Vermont,
12 an organization that emphasizes respect for diversity, defines it as “meaning that each
13 individual should be recognized for his or her own abilities, interests, ideas, needs, and
14 cultural identity” (n.d.). If diversity relates only to humanity, is it truly diversity?

15 **Jessica:** Diversity in education is a hot topic, especially so in the California
16 schools where I have worked. I have attended dozens of workshops, lectures, and
17 trainings as a teacher in five school districts and gave my signature agreeing to abide by
18 the school's diversity policies, and never have I come across a definition of diversity that
19 includes any reference to non-humans. I attended nine universities before beginning my
20 teaching career. All say they are committed to diversity, but their limited definition
21 contributes to the ecological imbalances we are suffering in our world today. I remember
22 how hard dad worked to include the concept of "ecological justice" while working with a
23 committee to develop social justice policies at his progressive university. He argued that
24 social justice must include respect for the entire planet and all its natural systems and
25 creatures.

26 Of course, the current language about diversity is important. However, even the
27 best diversity vision statements are blatantly narrow in their scope. An example is the
28 North Carolina State University whose Vice-Provost for Diversity defines “authentic
29 diversity” as existing:

30 ...when interactions between people are genuine, honest and real. It is a
31 deeper, more personal activity that goes beyond representation, affirmative
32 action and equal opportunity. It is diversity that takes place at the level of
33 individual differences. We may disagree, we may argue and we may even be
34 disappointed. At the end of the day, however, authentic diversity is about
35 people listening, caring, respecting and valuing each other...not because we
36 have to or because it is the right thing to do, but because we share a common
37 humanity that compels us to do so (Picart, n.d.).

38 This is an impressive commitment. Honesty and respect among students and staff is an
39 admirable goal. However, the inclusion of relationships with non-human species would
40 make this goal all the more achievable. The lessons we learn from in nature enable us to
41 better interact with one another. By not being hierarchical to non-humans, we are more
42 likely to treat others of our own species as equals as well.

43

1 **Four Arrows:** I want to emphasize that our critique of child or learner-centered
2 guidance or of educational visions for diversity does not mean that we want to abandon
3 all of the ideas inherent in such education. Nor does it mean we wish to distance
4 ourselves from challenging the corporate and military hegemony that oppresses humans. I
5 contributed to the 2003 text, *Education as Enforcement: Militarism and Corporatism in*
6 *Education*, along with other critical educators, including Henry Giroux, Noam Chomsky,
7 Michael Apple, E. Wayne Ross and the editors, David Gabbard and Kenneth Saltman. I
8 endorse such books and think their message is important, but critical pedagogy tends to
9 continue the anthropocentric delusion. As a back cover blurb states, it shows how our
10 current education system serves corporate and political interests instead of individual and
11 community interests. How much better it would have been if “community” implied more
12 than the human community. Until our collective work realizes and addresses the fact that
13 corporate and political interests are as damaging to non-human life as to human life, and
14 that this is equally vital, we will continue to miss the boat. We want progressive
15 education to embrace a different center for its work, from human based to "creation"
16 based. By creation-based, we mean making all of creation the operating target for human
17 education, not just human benefit. According to indigenous cultures, all “People” are
18 sacred, but these traditional cultures define “People” as including, trees, birds, mammals,
19 fish, plants, humans, etc. “Grandfathers,” whether rocks or frogs or cardinal directions,
20 all teach us how to live in balance. Now, although few educators go as far as this, a
21 number have expressed concern about critical education's anthropocentric tendencies. For
22 example, Anne Bell and Constance Russell’s article in the *Canadian Journal of*
23 *Education* (2000) was entitled, "Beyond Human, Beyond Words: Anthropocentrism,
24 Critical Pedagogy and the Poststructuralist Turn (pp 188-2-3)." Also, Chet Bowers has
25 written a number of texts, including a collection of recent essays, available online at his
26 website cabowers.net, that expose the problem of anthropocentrism in education. So it is
27 not that this issue has not been recognized, but that a deep realization of its effect on the
28 world seems not to have taken hold.

29 **Jessica:** There is no doubt that everything in human awareness seems to be
30 filtered through a human-centered lens. How often do we use the words, "non-human," in
31 front of the word, "animal?" We seem to consider ourselves non-animals. Even if a
32 dictionary may allow for this by definition, we similarly are reluctant to consider
33 ourselves even as mammals. I believe that this is often more about arrogance than
34 ignorance, but I'm not sure. I searched the Internet with the question, "Are humans
35 animals?" I did not look through all of the nineteen million hits that Google reported for
36 these words, however, I looked at enough to see clearly that the majority of the Internet
37 public believe that humans are at least superior to animals, whether or not the definition
38 they accepted for animals included our species or not. For example, a wiki answer reads
39 “We are animals; we just happen to be the most intelligent animals on Earth” (n.d.). It is
40 the flavor and tone of the many comments and their strong assumptions about the
41 “superiority” of humans that causes me to characterize them as delusional. With all the
42 attention given to the idea of “multiple intelligences,” how can anyone today reasonably
43 refute a claim that animals (they) and humans (us) have “different” intelligences that are
44 equally remarkable, valuable, important, intelligent, etc.? Frankly, in light of what
45 humans are doing to the planet, it is not difficult to make a case for us being less
46 intelligent than other species.

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1 For years, scientists looking for intelligence in "animals" based their conclusions
2 on whether behaviors were based on abstract thinking as opposed to instinct. Some
3 researchers have concluded that certain non-human animals demonstrate such cognitive
4 abilities (Faggot, Wasserman and Young, 2001). However, when the same scientists learn
5 that these animals may only have been responding to "clues" rather than abstract
6 thinking, the intelligence assumption was dismissed. The researcher merely claimed the
7 apparent intelligence was just a learned response to the clue, as if this itself were not
8 equally amazing. The famous horse, Clever Hans, for instance, demonstrated an ability to
9 read the attitudes and behaviors of those around him, "an ability far exceeding that of the
10 trained human scientists conducting the experiments" (Rosenthal, 1965, p 19). Yet,
11 because it was only responding to such clues, Clever Hans was not acknowledged as
12 being "highly intelligent."

13 Brio, a horse that Dad gave to my boys and me, displays similar abilities, as
14 Clever Hans. For someone to dismiss Brio's intelligence as being only some "trained"
15 response is, in my estimation, a self-deception consciously or unconsciously intended to
16 maintain a position of superiority.

17 **Sage:** Well, there is no doubt in my mind that Brio is smart, even smarter than
18 me. For example, I was on a ride a couple of months ago on Brio in a place he has never
19 been before. When I could not find the trail back, I trusted Brio to do what I could not do
20 and gave him his head to lead the way. Thirty minutes later, I found myself safely back at
21 the ranch. I think if more people understood how intelligent other creatures are, although
22 in different ways, we would treat them better. Maybe we do this with our dogs, but if we
23 noticed how smart snakes, fish, squirrels, and even ants are, I think we would treat them
24 better. I mean, it seems that we only see animals as something to eat unless they are pets.
25 American Indians eat animals, of course, but if we are living and thinking as we are
26 supposed to do, we respect animals that we are going to eat. Like when grandfather and I
27 go fishing, we say a prayer for the fish before we kill it. Sometimes we cry, not because
28 we are sad but because we are so thankful for the fish giving its life for us. In regular
29 society, people don't even think about this. We don't mind if it an animal suffers for a
30 year until we kill it in factories. There used to be no difference between us getting our
31 food and a wolf killing a rabbit. We worked for our food and appreciated where it came
32 from. Now we just get food from stores, all packaged. We don't see the cow or the
33 chicken when it is alive and so we forget that they act like we do in many ways and don't
34 say thank you. Even when people do kill animals themselves nowadays, like hunters do,
35 they still don't feel connected to them. Some hunters kill for sport. They have killed so
36 many predators that their prey's population is growing too much and now we have to kill
37 the prey.

38 **Four Arrows:** I'm curious, Sage, do you think that hunters who hunt for sport are
39 doing something wrong?

40 **Sage:** I've got to say that my answer is a "yo." Meaning, yes and no. Shooting for
41 sport is okay, maybe, if the hunter uses most of the animal and doesn't just take the head
42 to hang on a wall. If a hunter just takes the head and leaves the rest of the animal to rot,
43 this is disrespectful, of course.

1 **Four Arrows:** Actually, I am happy to hear Sage say this because I recently
 2 endorsed a book by Dr. Randy Eaton entitled, *From Boys to Men with Good Heart:*
 3 *Hunting as a Right of Passage (2009)*. Randy believes that appropriate hunting,
 4 spiritually based, is one of the last opportunities for a right of passage. I think it is
 5 difficult for many people to be able to offer great respect and love for animals, or even
 6 see them as our ultimate teachers, and at the same time condone killing and eating them
 7 unless the spiritual understanding of Nature is deep and the complex mystery of Nature
 8 honored. A right of passage tends to bring a young person into such an understanding,
 9 where respect, appreciation and survival interrelate in a way where appropriate killing for
 10 food is considered sacred.

11 Recently I almost fell into the trap of losing perspective on this when I signed a
 12 petition against the mass slaughter of pilot whales that occurs annually on Feroe Island.
 13 As soon as I signed it, I realized that maybe this was an Indigenous community gathering
 14 food and other supplies from the creatures as they had for thousands of years. I wrote a
 15 friend in Denmark to get more information and she confirmed my suspicion. The end of
 16 her email is worth sharing here: "Here in small Denmark we live "peaceful" while killing
 17 our miljoe with cars and our land with fertilizers and us with too much and too bad food
 18 and habits and with war in Afghanistan and election of wrong politicians. Hurrah for
 19 humanism."

20 **Jessica:** After Sage saw these same Internet photos, he was also angry initially,
 21 thinking it but another example of human disrespect and greed. However, when he
 22 learned about the balance and respect involved in the killing, he understood that it was
 23 not necessarily wrong. I think his ability to consider both facts and values comes from his
 24 early exposure to both critical and non-anthropocentric thinking. For example, after
 25 Sage's first birthday, Dad gave him a drum on which he had painted four animals that had
 26 come to him during one of his vision quests in preparation for a Sun Dance. It showed a
 27 buffalo, a wolf, an eagle, and a bear. Each represented a different virtue; generosity,
 28 honesty, courage, and patience, respectively. Sadly, the drum was lost during one of our
 29 many moves, but its meaning will last with Sage forever. As a new mom, I don't think I
 30 uttered the word "patience" unless it was coupled with "like the bear." Why did that make
 31 it more meaningful to me? Did it make it more meaningful to Sage? I have been a public
 32 school teacher all of my adult life. I have known many children of all ages and never
 33 have I met one with more admiration, respect, empathy, and love for animals than my
 34 son, Sage. Almost everything he says or does relates in some way to animals. He
 35 absolutely considers himself an animal and would likely be confused if someone were to
 36 disagree.

37 **Four Arrows:** Perhaps one reason for Sage's perspective about this is that he was
 38 not brought up practicing one of Western culture's organized religions. Historians,
 39 philosophers and scientists alike have long blamed the Abraham based religions,
 40 especially Christianity, for our heavy dose of anthropocentrism. Noted historian, Lynn
 41 White, contended that Christianity was largely responsible for the environmental crises
 42 back in 1967, saying that it was "the most anthropocentric religion in the world" (p.18).
 43 In blaming religion, however, the same authors saw science as the antidote to
 44 anthropocentric conceit. Stewart Guthrie, for example, who argued that
 45 anthropomorphism lies at the heart of religious experience, believed that the chief role of

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1 science is to "eliminate human features from representations of nature." He said,
2 "Science is one of the most systematized forms of knowledge and one of the least
3 anthropomorphic" (1993, p. 197). Rafael Argüelles writes, "With the scientific mind,
4 modern humans have achieved a sort of colonization of the rest of nature, where only
5 their own benefit makes any sense" (2005, p. 123). In my own book, *Critical*
6 *Neurophilosophy and Indigenous Wisdom*, I contend that many of the conclusions in the
7 neurosciences are filtered through the human-centered lens of Western culture with
8 interpretations that claim generosity is strictly a human enterprise. In fact, I would like to
9 paste a condensation of a dialogue from that book here as I believe it is relevant to both
10 the larger topic and this aspect of it. This is from a dialogue between Indigenous educator
11 Greg Cajete, South Korean neuroscientist Jongmin Lee, and me:

12 **Four Arrows:** ...You said reciprocity is the highest, healthiest state of the
13 human brain, but why just the human brain? Although intra-species
14 cooperation with non-kin is an issue that has attracted substantial attention in
15 neuroscience, it is not at all understood. In the absence of this understanding
16 the research thus far tends to conclude or imply that reciprocal altruism is rare
17 in other animal species, with some exceptions. I have trouble with the
18 interpretation that if animals are generous, it is because of an activation of
19 places in the brain that stimulate "good feeling" chemicals and reward
20 feelings that are also served by food, sex, drugs and money.

21 **Jongmin:** I believe that only human-beings can perform "genesis," like the
22 replanting of trees or a garden, etc. We seem to take joy in doing this and thus
23 it is a high level emotional function. Due to this kind of behavior, human-
24 beings play a major role in maintaining the balance of the world. I think this
25 stems from empathy for other parts of the world.

26 **Four Arrows:** We perceive it as selfish with our Western eyes and our belief
27 that competition is the way of the wild, but it is not true and Indigenous
28 Peoples know this...

29 That we may have a uniquely developed anterior prefrontal cortex that
30 becomes involved when immediate self-interest and moral beliefs are at odds
31 means nothing. Animals don't have such conflicts. That's why they are our
32 teachers!

33 **Greg:** Jongmin, I respectfully disagree also. I think it is a limited view to
34 reduce animal behavior to simple reward/punishment oriented stimulus
35 response mechanisms of brain function. Both Humans and animals exhibit an
36 "emergent" quality called Mind. It is the mindfulness nature of humans,
37 animals, plants, places, the Earth and celestial beings and spiritual entities
38 that Indigenous wisdom is keyed into. So, whether animals are truly generous
39 or are just motivated by instinctual drive, I would point to the countless
40 examples of animals acting in altruistic ways toward each other and toward
41 humans. Acts of "generosity," cooperation and mutual reciprocal relationship
42 among animals of the same species and among interspecies including humans

1 are what Indigenous hunters observed since time immemorial. It is these
 2 kinds of acts that formed the basis for the ethical and mythological construct
 3 which form the basis of Indigenous wisdom of fostering life through rightful
 4 relationship.

5 **Jongmin:** Greg, basically I know about the existence of animal generosity
 6 cases that people enjoy to watch. But I don't think this generosity works
 7 constantly all the time in animal world because it cannot be based on
 8 reasonable consciousness since, in the field of psychiatrics, the superego is
 9 described as specific mental function to human being.

10 **Four Arrows:** But this is just a theory developed by a species that has
 11 continually alienated itself from the "other" animals.

12 **Greg:** There are many stories in Indigenous traditions that relate the
 13 generosity of animals to humans and to other animals as well. These stories
 14 certainly originated from actual observation of animals in their natural
 15 environment as they were from the creative imagination of the story tellers.
 16 The generosity of animals is either related directly or indirectly in these
 17 stories.

18 All scientists would come much closer to "the truth" if they at least tried to imagine other
 19 ways of being in the world beyond the human perspective. "Experimenters not only need
 20 to put themselves in the subject's shoes, they need to wear them – walk, watch, hear, and
 21 act like the subject" (Timberlake and Delamater, 1991, p. 39).

22 **Jessica:** I've not seen this dialogue before, but it reminds me of what the authors
 23 of the book, *A Discourse in Character Education: Culture Wars in the Classroom*, said
 24 about a book Dad and I wrote, entitled, *Teaching Virtues*. "After analyzing a number of
 25 character education programs throughout the U.S., they concluded that ours offered a
 26 uniquely different perspective that stemmed from the ideas that everything is related, and
 27 that animals, not humans, are the original source of such virtues as generosity, patience,
 28 and courage. They referred to our approach as spiritual, saying that:

29 (For them) spirituality pervades the entire process of learning that leads to
 30 good character. Knowledge always is ultimately connected to our spiritual,
 31 ecological, intrapersonal and interpersonal relationships. However, they
 32 remind us that overly anthropocentric assumptions of our current culture
 33 cause us to forget this fact even when we use collaborative models for our
 34 teaching (Smagorinsky & Joel Taxel, 2005, p.59-61).

35 Anthropocentrism's hold on religion, science, and character education reveals how
 36 pervasive the problem is. In his online article entitled, "Recognizing Anthropocentrism as
 37 a Terminal Disease," noted veterinarian, Michael W. Fox, agrees that this problem is a
 38 poison in need of an antidote:

39 What God in dog's name, I wonder, would create such an awesome diversity
 40 of life forms on Earth just for the exclusive use of one anomalous primate

1 species that has opposable thumbs, an evident identity crisis, and that lives in
2 denial of the consequences of its many seemingly insatiable appetites? The
3 belief in human superiority, like our ecological and spiritual degeneration, is
4 a relatively recently acquired affliction; an aberration in human
5 consciousness. It is the cornerstone of anthropocentrism and it spread rapidly
6 into Western civilization after two founders of Catholic Christianity, St.
7 Augustine and St. Thomas Aquinas, embraced the Greek rationalist
8 philosophy of Aristotle. Aristotle contended that men are superior to animals
9 because only humans have the power to reason. He conceived of a great chain
10 of being with the human species above the rest of the animal kingdom, and
11 with men above women and slaves above animals (n.d.).

12 **Four Arrows:** Fox echoes what many in the deep ecopsychology movement
13 believe about how the tendency to feel separate from nature is a dangerous illusion.
14 Daniel Quinn, the author of the popular book, *Ishmael*, says the message in all of his
15 books is that anthropocentrism is “the most dangerous idea in existence” because it
16 necessitates mass extinction, including our own (2002).

17 **Sage:** Mom read some of *Ishmael* to me because it is one of her favorite books. I
18 remember the gorilla talking about the negative parts of religion in the “taker society.”
19 Religious people who are very anthropocentric may think that their “God” put animals on
20 the earth just for humans to use for food, science, pets, clothing, etc. If this
21 anthropocentrism continues, the animals on our Earth (all of them) may become extinct.
22 For example, there are only about 1600 Giant Pandas left according to the World Wildlife
23 Federation (n.d.). I have not researched this and probably should for an article like this,
24 but before someone says “I could live fine without Pandas,” well, Pandas eat bamboo and
25 if there are no pandas, the bamboo might overtake other plants that would then kill other
26 creatures or contribute to global warming or who knows what other ways Pandas do good
27 for the world? More importantly, they have a right to be here the same as we do.
28 Whatever reason we are here could be the same as why they are here. Also, the scientists
29 really don't know enough about animals to make the claim that humans are greater. Just
30 yesterday I watched a YouTube video about a lioness that adopted a baby antelope and
31 protected it from other lions. I mean, normally this was her prey! We don't know how
32 often this kind of thing might happen in the wild. It was just lucky that people were able
33 to video this event (*National Geographic*, n.d.). No one understands really what the lion
34 was thinking and what lessons she might teach us. And if we keep causing animals to go
35 extinct, we will never know.

36 **Jessica:** Sage's story shows that he has been able to partially learn these lessons
37 from technologies like YouTube, but for me the real life exposure was needed. When it
38 came to the editing phase of the writing of this article, I complained to Dad about how
39 many students I needed to work with and all of the projects I had to complete. I passed
40 that responsibility on to him. He was disappointed and reminded me of the importance of
41 this piece. Turns out, all I needed was a bit of inspiration. I needed a lesson from nature,
42 from a non-human animal. Sage saw them first. I ran quickly and jumped in the ocean in
43 an effort to get close to the group of dolphin swimming in the bay. He followed.
44 However, when we were several hundred yards out to sea, Sage complained that we had
45 come for nothing. He was tired and disappointed. I was frustrated with his negativity and

1 asked him to sing. We chanted for several minutes when we were startled by an eleven
 2 foot solid black spouting creature less than three feet from us. He circled us and swam
 3 below our feet and danced. The dolphin gave me a lesson in generosity. He gave Sage a
 4 lesson on patience. He taught us both humility and reminded us how important it is that
 5 we help educators realize the role of animals as teachers.

6 I came across a book entitled, *Animal Pragmatism: Rethinking Human-Non-*
 7 *Human Relationships*. The contents were not all that different from the many animal
 8 protection/animal rights articles out there, but the foreword by John J. McDermott was
 9 exceptional. It begins, "Animals indeed! If anyone thinks that the lives and habitats of
 10 animals are not existentially central to the meaning of human life, I urge them to
 11 reconsider" (2004, p iv). But how do people "reconsider" when human-centeredness is so
 12 pervasive? It is not only a part of religion and science, but it is embedded in our
 13 materialistic language, grammar, myths and metaphors. This is why we need to move
 14 back to our Indigenous model that emphasizes relationships with all life forms. "The use
 15 of relational processes instead of material ones is a gesture towards dehumanization of
 16 world view and an antidote to anthropocentrism" (Goatly, 1996, p.44). I think this is
 17 where we must begin our return to an Indigenous orientation in education.
 18

19 **Indigenous Teaching and Learning Orientations:** 20 **A Multi-Generational Overview of Ways to Teach and Learn** 21 **From Other Than Humans**

22 **Four Arrows:** In this part of our essay, we offer suggestions for a new orientation
 23 for contemporary education, one that offers a sacred and practical view of Nature as the
 24 foundation for ALL teaching and learning. In his book, *Look to the Mountain*, Greg
 25 Cajete writes that "concepts of sharing, connecting and relating one's life to animals
 26 formed the basic premise of Indigenous education" (1994, p 101). All traditional
 27 education of Indigenous Peoples, including rituals, ceremonies, story-telling, art, etc.,
 28 express partnerships with plants and animals. We talk to the plants and listen to the rocks.
 29 Often times kinship systems were based on animal attributes and named for the animal.
 30 Teaching stories for children almost always include non-human perspectives.

31 **Jessica:** Speaking of teaching stories for children, when I was six-years old, I
 32 collaborated with Dad on a children's book entitled, *Happy Exercise*. Dad asked me what
 33 the best way for children to learn about healthy diet and exercise would be and I came up
 34 with the main character, a rabbit named "Reddy." Using the animal character to teach the
 35 virtues relating to a healthy lifestyle seemed natural and logical to me then and it still
 36 does. We believe that animals, not humans, are the original teachers of the virtues. Dad
 37 trained wild horses as I grew up and my character education-learning about generosity,
 38 patience, honesty, fortitude and courage- often related to the horse or to a wolf or some
 39 other creature.

40 **Four Arrows:** It is common for traditional Indigenous Peoples to use close
 41 observation and a spiritually based intuition to refer to the unique lessons that non-human
 42 entities teach us. For example, the Huichol People of Mexico who believe, like many
 43 Indigenous cultures, that humans and animals used to speak to one another, think of the

1 vulture as seeing the future because of its knowledge of life and death; the squirrel as
2 being clever since he avoids trouble by climbing to higher levels; the turtle is thoughtful
3 and patient and teaches us how to protect ourselves without harming others, etc. (Larson,
4 2002, p.29). Similarly, David Abrams refers to animals as:

5 ...another set of senses, another angle from which he can see and hear and
6 sense what's going on in the surrounding ecology, because we are limited by
7 our human senses, our nervous-system, and our two arms and our two legs.
8 Birds know so much more about what's going on in the air, in the invisible
9 winds, than we humans can know. If we watch the birds closely, we can
10 begin to learn about what's going on in the sky and in the air simply by
11 watching their flight patterns (London, n.d.).

12 I'll share a brief story of my own to give an example, though I have many I could
13 tell. One year, I was preparing for a Sun Dance and had learned that for the week
14 scheduled for the sacred event, the temperatures in South Dakota were going to be in the
15 hundreds. Going without water, dancing in the sun and praying for the world in such heat
16 had me worried, so I went up on a hill in the Idaho wilderness to "cry for a vision." I
17 placed my tobacco ties in a circle, held my chanupa (pipe) and prepared for a 24-hour
18 wait for a dream or some sign. As soon as I sat down, a rat-like animal stepped into the
19 circle near my legs and I reacted immediately by shoeing it away. At once, I realized my
20 folly. What if it had been my animal teacher? The more I thought about it the worse I felt,
21 assuming that for the next twenty-three hours, fifty five minutes, I would likely not get
22 another message. I sent prayers out in recognition of my mistake, offering appreciation
23 for the gift, and hoping the creature would return. In a short while, the rat came back. It
24 actually sat on the tobacco ties with its back to me, as if it were a pet guard dog. I studied
25 it. It had very long legs and a long tail. I had never seen anything like it. After five
26 minutes or so it left, taking a tobacco-filled yellow piece of folded cloth with it. Patiently
27 I endured the long night, anxious to get back to the house and learn what the teaching
28 might be. Not being on the reservation, I had no medicine person who had or could get
29 the knowledge in a spiritual way, so I planned on using the computer! In the morning,
30 after making the fire for the purification lodge, I was looking at Internet photos of rodents
31 of various types when I saw it. It was a Kangaroo Rat and the information about it stated
32 that it was the only animal in North America that could go a lifetime without drinking a
33 drop of water! I immediately understood that the animal showed up to let me know I
34 would survive the ceremony. When we teach people to pay attention to animals and learn
35 about them, such opportunities occur often and begin to move us away from human only
36 approach to understanding. Many books are available that offer information about
37 animals and ideas that can help bring students enough knowledge to make connections
38 between animals that come into their life and the teachings that they offer.

39 **Sage:** I've been looking for a spirit animal lately, even before I started working on
40 this article. I wanted one that could guide me during some tough times I'm going through.
41 One night a picture of a cat popped into my mind. The next day my Mom got me a
42 present. It was the third book of a series I was reading. In the book, one of the main
43 characters that I was very attached to was a panther. After these two experiences, I could
44 not get the idea of a wild cat out of my mind. So, I have been studying the different wild

1 cats, especially the panther, to see what I can learn and what connections I can make that
 2 might guide me. I know the panther has ways of being in the world that can balance my
 3 ways that sometimes get me in trouble. I think from what I've learned about panthers is
 4 that they are lunar animals that spend a lot of time in the night. I'm a very solar boy and
 5 just by stopping to think about the panther, I can slow myself down. Here is a poem I
 6 wrote for this article:

7 Black as can be, will climb any tree.
 8 Panther, the king of the night.
 9 Like a mother, so caring, peaceful and wise.
 10 Panther, the king of the night.

11 **Jessica:** My experience with the dolphins I mentioned earlier has had the same
 12 balancing effect in my life as Sage's panther. I was conscious at an intellectual level
 13 about the balance between solar and lunar energy, but not until I associated with the
 14 animal did it really get into my psyche.

15 When Dad approached me to write *Teaching Virtues* with him, I was familiar with
 16 traditional character education programs that taught values separate from the curriculum.
 17 However, Dad taught me that in the Indigenous education model, the virtues are taught
 18 with an integrated approach. I remember being excited about presenting a way for
 19 teachers to infuse the universal virtues into their daily lessons. Although we did not go
 20 the next step of making connections to the natural world in all of our lesson plans, this is
 21 what we are recommending here. If we, as educators, can simply incorporate an
 22 animal/plant/nature focus into our already existing curriculum and extend the model
 23 described our book, we may achieve our goal of developing truly holistic and balanced
 24 children.

25 Below is an abbreviated Pedagogy and Procedures Checklist from *Teaching*
 26 *Virtues*. I've modified it (in parentheses) to offer some ideas that might help a teacher
 27 provide non-human centered lessons in an existing curriculum. This is just off the top of
 28 my head and I think it shows how easy it is to make relevant connections between various
 29 educational activities and the natural world:
 30

- 31 1. Cooperative learning (how do animals work cooperatively, look at the
 32 symbiotic relationships of plant too)
- 33 2. Field experience (getting out of the classroom in nature will provide
 34 numerous opportunities to witness and interact with nature)
- 35 3. Intrinsic motivation (what do we naturally want to do, what do animals
 36 naturally want to do)
- 37 4. Extrinsic motivation (what causes a rabbit to run fast)
- 38 5. Intuitive exercises (an opportunity to discuss instinct)
- 39 6. Musical orientation (do non-human animals create or appreciate
 40 music, is there music in nature)

- 1 7. Linguistic orientation (are humans the only animals to speak
- 2 8. Community involvement (expand the definition of community)
- 3 9. Multicultural aspect (how do other cultures treat and interact with
- 4 various types of animals)
- 5 10. Service-learning activity (what better way to learn about care of our
- 6 planet than to donate time towards environmental protection of
- 7 animals)
- 8 11. Use of technology (can make it possible to visit animals and settings
- 9 far from home)
- 10 12. Reference to wellness/fitness (are there overweight non-human
- 11 animals)
- 12 13. Story-telling (share stories of indigenous peoples' stories that involve
- 13 learning from and living with animals)
- 14 14. Activism opportunity (students can share what they learn from animals
- 15 and make positive change in many areas)

16 **Four Arrows:** Such possibilities are, of course, just the tip of the proverbial
 17 iceberg, yet it is vital that we begin to take action with such approaches to teaching and
 18 learning. Recognition for the need to reconnect children to nature and non-human life is
 19 well established now. *Children and Nature-2008: A Report on the Movement to*
 20 *Reconnect Children to the Natural World*, a product of the Children and Nature Network
 21 that is led by Richard Louv, the author of the best-selling book, *Last Child in the Woods:*
 22 *Saving Our Children from Nature Deficit Disorder*, establishes this fact. It is full of
 23 references to newspaper articles, books, and research projects that reveal that the "Leave
 24 No Child Indoors" movement is blossoming, at least in terms of identifying the
 25 consequences of the current separation between children and nature and the importance
 26 of a reconnection in education. There are also a number of schools responding with such
 27 programs as organic gardening and studying the various natural cycles. Our contention,
 28 however, is that unless such programs ALSO work intentionally toward decreasing the
 29 sense of human superiority and exclusiveness, even a reconnecting with nature agenda in
 30 education will not bring forth the reality most of us in the movement desire- a truly
 31 balanced child/adult living in a truly balanced world. What I like about Jessica's brief
 32 ideas about connecting non-humans to progressive educational activities is that they show
 33 the animal as teacher, and this breaks down any sense of hierarchy about humans being
 34 "at the top." The more we can learn about the similarities and differences between
 35 humans and non-humans in a way that gives equal respect and significance to both is the
 36 key to non-human centered learning. This giving of significance to others is what
 37 American Indian spirituality is all about (Four Arrows, 2002, pp 16-18.)

38 **Sage:** What if in a classroom, students and the teacher took on the attitudes and
 39 ways of being that go with a particular animal? People could choose a favorite animal or
 40 could draw one from a hat or something? Then, for a week or more, each person would
 41 try to be like that animal, based on studying about the animal. So, for example, a person
 42 who chooses a turtle might be patient, slower than normal, not bothered by things, able to
 43 go into a metaphorical shell, etc. This would help us learn about other ways of living in

1 the world. The animals all have values that we can learn from and can remind us to
 2 practice the virtues that we know but forget. Or maybe we don't forget them but we don't
 3 really know how to be generous or honest unless we see how animals practice it.

4 **Jessica:** When Sage refers to “practicing” the virtues, he reminds me that even
 5 when we “learn” how we are supposed to live in balance with the natural world, we don’t
 6 often practice a way of life that mirrors it. I believe that we must present this suggested
 7 non-human centered curriculum with a slant towards action. This has always been a
 8 complaint of mine in our modern educational system...we "learn" so much information
 9 simply to perform on an exam. How much more valuable would it be if we took that
 10 knowledge and acted on it. We would certainly retain the information and beyond that,
 11 likely make a positive difference for all. This is especially true with a nature-based
 12 educational model. Youth have such power today. If they were to learn the three R's with
 13 even a minor inclusion of nature/plant/animal themes and then take action, change would
 14 ensue. In *Malibu, CA, students learned about plastic and the problems it is causing in our*
 15 *oceans*. They learned about its benefits and also how it is abused. With a focus on
 16 keeping the ocean clean for their fellow animals, they relayed the information to the city
 17 council and convinced them to approve a ban on plastic bags in the city. Other cities are
 18 following suit.

19 One of the key differences between traditional Indigenous learning and Western
 20 learning seems to be that in the former, learning is always about being in balance with
 21 "all our relations," whereas the latter tends to allow learning to apply only in segments of
 22 reality that offer some isolated benefits. If the Indigenous model is going to be useful,
 23 people will have to make an appreciation of our interconnectedness with the world a
 24 minute by minute, action-oriented consciousness. I wonder if we can do this!

25 **Four Arrows:** If the animals become our teachers, we are more likely to take this
 26 action in the world than if we keep this in the incestuous interplay of exclusively human
 27 affairs. The following precepts will only be useful if we expand them beyond pedagogy.
 28 If we study animals as equals and as teachers, perhaps we can learn how to take action in
 29 the world in ways that can bring in a new era of harmony. We suggest that the ideas listed
 30 below will have deeper meaning when we see and feel how animals can teach us to use
 31 them in the real world.
 32

- 33 • **Everything is interconnected.** The next time you observe a creature,
 34 try to imagine all the complex interactions it might be honoring.
 35 Challenge assumptions that reduce other life forms to pre-programmed
 36 entities that are not similar to us. Whether observing a tick or a cloud,
 37 try to get in touch with its journey, its consciousness and its wisdom.
- 38 • **Cycles in nature** offer ways to be in touch with our natural rhythms
 39 for teaching and learning, including the when, why, and how. To learn
 40 about our own inner rhythms, study those in weather patterns more
 41 closely. Try to learn which rhythms seem natural and which are forced
 42 (an interesting experiment during these times of global warming!)
 43 Observe plants and their growth cycles, insect movements, etc. Get in

- 1 touch with your breathing, your moods and make connections between
2 them and those of your pets, your plants, etc.
- 3 • There are **multiple realities** to consider when making life decisions.
4 Expand the consequences of planned actions into the world that
5 surrounds you and see what you might learn. For example, if you are
6 planning on cutting a lawn, stop and consider the possible impacts on
7 the environment with as broad a reach as possible.
 - 8 • **Dreaming, art, music, ritual** and ceremony are vital ways to connect
9 to the invisible world that surrounds us. Do more to honor your
10 dreams; participate more in music; bring animal energy to bear on
11 important decisions and create a deeper sense of concentration about
12 important things with rituals.
 - 13 • Learning about **self-deception** is a primary goal for the proper
14 application of any learning. When talking to self or others, get in touch
15 with the degree of truthfulness and the degree of falsity your words
16 might convey. Share your words with an animal. Really! Say the
17 words to a pet or even some bird sitting outside and see how your
18 integrity shifts to a more honest way of seeing and describing the topic
19 or idea. This exercise will lead to more humility.
 - 20 • **Humility** is important for seeing, listening, feeling and intuiting more
21 honestly. Breaking the illusion of hierarchy can make you feel
22 connected in ways that enhance all your engagements so that they are
23 more positive.
 - 24 • **Knowledge and action** are integral. Observe the wisdom of creatures
25 other than humans and notice how inseparable the wisdom is from
26 their actions and behaviors.
 - 27 • **Sacrifice** is often a requirement for the reciprocity that is inherent in
28 all living systems. Learn from animals about the give and take; the
29 pain and pleasure; the balance that understands that cycles of
30 difficulties are naturally woven into cycles of smooth sailing.
 - 31 • An **intentional effort** is required to maintain balance and health in
32 world. This intentionality may seem instinctual in other creatures, but
33 if you observe carefully you will see the flexibility and responsiveness
34 to new stimuli that requires intention. Don't be hypnotized by your
35 habits. Be as creative as a spider; as spontaneous as a horse; and as
36 reflective as a lizard.
 - 37 • Get in touch with apparently opposing but **complementary forces**, as
38 exists between right and left brain activity. The direct forces of the sun
39 operate in balance with the reflective energy of the moon. Our world
40 operates in accordance with apparent dualities that when you study
41 Nature reveal complementarities. Get in touch with your own solar and
42 lunar balance.

- 1 • Allow the non-human world to continually teach that there is no
2 separation between self and environment. Watch, learn and apply this
3 idea to all of your actions and thoughts. **Intimate knowledge of our**
4 **landscape** is the source of all wisdom.²
- 5 • Remember that we are all co-citizens on planet earth and that we must
6 look out for one another. **Rethink Darwinian** “survival of the fittest”
7 assumptions. Indigenous Peoples see the symbiosis that exists between
8 predator and prey. Cultural values that come from observation of the
9 world can go beyond natural selection for reproduction and lead to
10 balance in human affairs. Try to use this perspective and challenge the
11 competitive notions that define Western society.
- 12 • **Interspecies communication** can help us both relate better to one
13 another and lead us to our highest potential. Four Arrows just wrote a
14 novel about how communication between whales and a human
15 revealed a solution to the plastic vortex problem in the ocean. The man
16 who discovered the plastic debris in the North Pacific Gyre recognized
17 this important idea when he wrote an endorsement for the back cover:
18 “In *Last Song of the Whale*, Four Arrows combines an emotionally
19 compelling drama with a profoundly insightful message. In it we come
20 to realize that only in true partnership with the most charismatic of sea
21 creatures might we likely find the inspiration and courage to stop
22 creating the Ocean's Plastic Plague. (The Ocean's Plastic Plague is
23 doubling every decade with no end in sight. As a result, her creatures
24 are suffering and dying in droves. Perhaps this unique work of fiction
25 will make a difference and cause us to retool and redirect our
26 destructive productivity.)”

27 Such learning from non-human sources can change our consciousness and only
28 this, not technology, critical thinking or more human-centered pedagogy will bring
29 balance back to our world.

30 ...Lacking a sense of the spiritual presence of plants and animals and of
31 nonliving matter, we do not feel our ancestors watching or their lives pressing
32 on our own as did prehistoric peoples...Historical consciousness gradually
33 weeded out animal metaphors, organic continuities, and especially the
34 perception of nonhuman spirits of the earth (Shepherd, 1998, p.12).

35 Imagine how different the Copenhagen Conference of this year might have been
36 with this perspective in mind. Although there was one group that had petitioned for a
37 discussion on plant-based diets for the world, nothing I know of reflected a serious
38 understanding of the poisonous effects of anthropocentrism. We submit that if humans
39 could re-learn to adopt the idea that every land formation and creature is an imprint of our
40 ancestral consciousness, how different our priorities might be. We close with a quote

² For more on the importance of landscape, see: Deloria, V., & Wildcat, D., (2001) *Power and place: Indian education in America*. Golden, CO: Fulcrum.

1 from Robert Lawlor's, *Voices of the First Day* (1991), which describes what the
2 Aborigines of Australia understand in this regard.

3 All creatures-from stars to humans to insects-share in the consciousness of
4 the primary creative force, and each, in its own way, mirrors, a form of that
5 consciousness. ...he subjugation and domestication of plants and animals and
6 all other manipulation and exploitation of the natural world-the basis of
7 Western civilization and "progress" -were antithetical to the sense of a
8 common consciousness and origin shared by every creature and equally with
9 the creators. To exploit this integrated world was to do the same to oneself (p
10 17).

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29

30 **Authors**

31 FOUR ARROWS (aka Don Trent Jacobs) is a member of the doctoral faculty at Fielding
 32 Graduate University and a writer and American Indian activist whose work focuses on
 33 indigenous worldviews, wellness, and counter-hegemonic education.

34

35 JESSICA LONDON JACOBS ...

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37 RYAN SAGE ...

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