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Toward Interspecies Thinking as a Collaborative Concept: Autoethnographies at the Intersection of Traditional Ecological Knowledge and Animal Studies

The Words Before All Else. In Haudenosaunee communities it is customary before and after meetings, both large and small, to recite what we call: "the opening address" and "the closing address," which is also known as "the words before all else." In most cases, both the opening address and closing address are spoken in Haudenosaunee languages, of which I (Hugh) am still and will continue to be an avid learner. We call this, "the words before all else," as translated in English, because it is our responsibility to ensure that, regardless of the topic of the meeting, we are always thinking of, and being thankful for our Mother the Earth, all of the Beings of Creation, and for the unborn faces yet to come. This orients us to our responsibilities while we live here on our Mother's body and also acknowledges our reciprocal and intimate spiritual connection to our relations.

We provide a very brief paragraph of the opening address below in English. It is imperative to know that it is not customary to write the opening address, as Haudenosaunee are an oral tradition people. Typically the spoken word in our languages and worldviews are what gives specific meaning, beauty, and power to our ways as Indigenous and Haudenosaunee. Reciting the opening or closing, depending on the speaker and the meeting, may take anywhere from a few minutes upwards to twenty minutes or a half an hour. As we take into consideration the intended audience of this paper, and at our discretion, we believe it necessary to provide at least a short paragraph of the opening address in order to speak to the content and the richness of this paper.

During the opening address we give thanks to the people first, for their health and wellbeing. We then give thanks to our Mother the Earth and all that she provides. We give thanks to the grasses and to the medicines, then to the woodlands and to the fruits and berries. We give thanks to the waters, streams, lakes, rivers, and oceans. We give thanks to the life sustainers — corn, beans, and squash. We give thanks to the animals and then to the birds. We give thanks to the soft winds. We give thanks to our Grandfathers' thundering voices. We give thanks to our Elder Brother the sun. We give thanks to our Grandmother the moon. We give thanks to our Grandfathers the stars. We

give thanks to the Four Messengers, our protectors. We give thanks to our teachers and those who give us instruction. Lastly we turn our attention to the Skyworld and give thanks to the Creator, who finished our bodies.

After the speaker gives thanks to each and every segment or element of Creation, the speaker then says, "and our minds are agreed," to which the people in attendance respond by saying, "nyoh" together in unison, to show acknowledgment and agreement. The speaker usually asks that the crowd forgive them if they accidently left anything out and that they did not do it on purpose.

By "opening" with this critical teaching of the Haudenosaunee, our intent is to show the very practical ways in which relationships between the Earth, plants, animals, cosmological Beings, and humans maintain relationships together. We want to draw the reader's attention to the animals and to the birds, as our relationships with them are traditionally grounded in acknowledgment of reciprocity and gratitude. However, as a result of an internalization of settler-colonial ways of knowing, we often forget about our relationship with them — this I want to be clear about. Though this approach may not necessarily be the same way in which the Haudenosaunee discuss this matter, as this paper is in written form and in English, this paper aims to put us back into discourse about animals in ways that are collaborative, generative, and based in story or autoethnography, similar to ways in which this is done through the opening address. Our intentions are to "put our minds together" across differences with the clear intentions of thinking of the animals.

Introduction. Traditional ecological knowledge (TEK) is a contested term. While much of the literature on TEK utilizes Fikret Berkes's definition: "a cumulative body of knowledge and beliefs, handed down through generations by cultural transmission, about the relationship between living things (including humans) with each other and with their environment" (8), the lack of consensus is reflected in Davis and Ruddle's review of the academic usage of TEK. Davis and Ruddle argue that the lack of clear understanding of the term can further disenfranchise the disempowered, in that it can lead to the expansion of Western-style power structures to collect and extract TEK in the name of saving it (880; see also Zedler). Davis and Ruddle conclude that the "definitional approach" is misguided and harmful (885), and Whyte continues the critique by consciously avoiding the definitional approach to TEK and considering an alternative: TEK as a collaborative concept, which

> points to the possibility that there are cross-cultural and cross-situational divides that make it so that non-indigenous parties cannot expect their own assumptions to apply to indigenous contexts. The concept of TEK should be invoked to invite non-indigenous parties to learn more about how particular indigenous communities approach fundamental questions of the nature of knowledge and how it fits into their visions of environmental governance. This... is an invitation to become part of a long term process whereby cross-cultural and cross-situation divides are better bridged through mutual respect and learning, and relationships among collaborators are given the opportunity to mature. (10)

Therefore, TEK as a collaborative concept preserves Indigenous sovereignty while also extending an invitation to non-Indigenous parties to participate outside of the dichotomous discourse of Western civilization (e.g. savage vs. civilized, nature vs. culture, objective vs. subjective; for a more comprehensive treatment of this claim see R.A. Williams Jr.).

One example of TEK as a collaborative concept at work is the Nmé (Lake Sturgeon) stewardship program initiated by the Little River Band of Ottawa Indians' Natural Resources Department. The department, which employs both tribal and non-tribal members, started a "cultural context group" that combined cultural, biological, political, and social elements with the goal of "restoring the harmony and connectivity between the Nmé and Anishinaabek and bring them both back to the river" (Whyte et al. 3). The group participants do not have to adhere to the Anishinaabek knowledge system, but rather agree to keep a "sense of themselves ... in a shared watershed and a mutual responsibility that respects Nmé as a relative" (4). The authors conclude that TEK "may approach the human condition as not a struggle to know the universe; the condition rather is to know ourselves well enough so we can act morally in the universe" (8).

As this and other examples show, the "great divide" between TEK and other knowledge systems lies not in knowledge itself but in power relations — the "power to impose a narrative as the truth" (Houde 9). The dominant narrative in the West, according to Tim Ingold, is one that describes "how humans have risen above, and have sought to bring under control, a world of nature that includes their own animality" (1). This is a narrative that is troubled by advances in both TEK and Animal Studies, which challenge the imposition of anthropocentric narratives as truth. Both fields de-center the human in studying human-animal relations, thereby asking us to reconsider the basic

assumptions and narratives about human uniqueness that we construct and affirm in our daily lives (Waldau). One example is found in the work of Leanne Simpson, who writes that in traditional Nishnaabeg political culture,

> Animal clans were highly respected and were seen as self-determining, political "nations" (at least in an Indigenous sense) to whom the Nishnaabeg had negotiated, ritualized, formal relationships that required maintenance through an ongoing relationship. ... Animal clans were also a source of knowledge and inspiration. (33)

Simpson describes the relationship between the Nishnaabeg and animal "nations" as one that "maintains coexistence, respect, and mutual benefit" (35), which represents a concrete example of the type of argument advanced by Animal Studies: that "there [is] no a priori distinction to be made between humans and nonhumans," and that dividing lines between human and nonhuman animals are "subject to change and negotiation" (Emel et al. 409).

In navigating the confluence of TEK as a collaborative concept and Animal Studies, we are drawn toward the term interspecies thinking as an analytic paradigm that "aspires to transmit the character of political and social worlds that can no longer take the human subject as their dominant object of analysis" (Livingston and Puar 3). Simply put, interspecies thinking compels us to take the interests of other species seriously. In "Why Interspecies Thinking Needs Indigenous Standpoints," Kim TallBear asks, "Is it too easy a comparison to say that Western thinkers are finally getting on board with something that is closer to an American Indian metaphysic?" At least within TEK, the early returns show that Indigenous scholars are working to refine the concept in a way that complements and buttresses not only an "American Indian metaphysic,"[1] but also begins to establish an egalitarian collaborative model (e.g. Houde; Whyte; Whyte, Brewer, & Johnson). Western thinkers, by contrast, have generally advocated for a "definitional approach" to TEK that relies on knowledge mobilization (e.g. Berkes; see also Davis & Ruddle), a process that mimics colonization through the expansion of (sometimes inadvertently) extractive Western power structures. One example of this structure at work is the Arizona State University team who obtained consent to take blood samples from the Havasupai tribe, in order to help them combat a diabetes epidemic, but then used those samples to publish a dozen or more papers on unrelated topics, including the migration history of the tribe, which threatens their spiritual and political claim to their homeland (Harmon).

It is not hard to imagine that TEK as a collaborative concept, while functioning as "an invitation to become part of a long term process whereby cross-cultural and cross-situation divides are better bridged" (Whyte 10), can also function as an invitation to interspecies thinking. In the Nmé stewardship program, the call for participants to see themselves as relatives with the others in the watershed speaks to one of the fundamental tasks of the field of Animal Studies: to imagine ourselves as full participants in a more-than-human world. But Animal Studies has not yet fully reckoned with the intersection with IK that Vine Deloria, Jr. and Kim TallBear discuss.

But imagine an Animal Studies informed by the Indigenous voices calling for TEK as a collaborative concept — let us call it *interspecies thinking as a collaborative concept*. Playing with the concept (as first presented in Whyte), let us rewrite its characteristics from an interspecies perspective:

> · Interspecies thinking as "[approaching] the human condition not as a struggle to know the [more-than-human world]; the condition rather is to know ourselves well enough so we can act morally in the [more-than-human world]."
> · Interspecies thinking as "an invitation to become part of a long term process whereby cross-cultural and [interspecies] divides are better bridged."
> · Interspecies thinking as "[keeping] a sense of ourselves in a shared watershed … and a mutual responsibility that respects [nonhuman animals] as relatives."[2]

Following this model avoids what we might call the *assimilatory approach to interspecies thinking*, in which one would search for more benign ways to include other species within a human exceptionalist paradigm. We propose that interspecies thinking as a collaborative concept should begin with the Indigenous cosmological foundations of TEK, which provide the basis for intercultural collaboration, and from this position choose to focus most intensively on the narratives and practices that comprise the human/nonhuman animal divide. The three autoethnographies that follow are a preliminary attempt to think through this intersection, while also functioning as an invitation for others to join us, and all our relatives, here.

Methods. Autoethnography as a method combines ethnography and biography and allows the author(s) to retroactively understand our past experiences and apply them to

research. We are using autoethnography in a similar approach as Arluke and Sanders, who write,

> Just as we attribute truth and accuracy to ethnographic research based on the quality of the investigator's relationships with those studied and the credibility of his or her account, it is reasonable to use the same criteria in evaluating studies of animal-human interaction. (51)

In this case, building on the work of many authors (Young & Thompson; Robinson; Sanders & Furman; Irvine; Sanders & Arluke; Arluke & Sanders) we utilize autoethnography as a method to explore deep meaning, affective, and reciprocal relationships with and about humans, nonhuman animals, and their interactions.

In this piece, three authors — Adam Fix, Hugh Burnam, and Ray Gutteriez — have autoethnographic voices. Adam Fix is non-Native/ non-Indigenous/ Euro-American/ "settler." Ray Gutteriez (Mono) and Hugh Burnam (Mohawk) are Native/Indigenous. Our positionality, as Indigenous and non-Indigenous/settler, Mono or Haudenosaunee researchers, and/or Indigenous community members, is an aspect that we have taken into great consideration. We have each adopted what Patricia Hill Collins describes as "the outsider within" (s15) positioning of research, in which we conduct research on our community as community members but also as members of an outside group. We become the outsiders within, as we conduct research about our own communities and ourselves (Dwyer and Buckle 57).

Further, Ladson-Billings and Donner state that scholars of color, including Indigenous or American Indian scholars, are positioned in ways that are of "common in the experience of a racialized identity" to which may mean to acknowledge "some of the common experiences that group members have had as outsiders and others" (284). This was something that we (Hugh and Ray) had to constantly be aware of while doing this research and reflecting on our experiences, as in many respects "insiders" to our communities and also "outsiders" as a result of our positionalities as researchers, too.

Researchers in various disciplines (e.g. anthropology, history, education, etc.) have historically exploited Indigenous knowledges (Denzin, Lincoln, & Smith; Smith). Apprehensiveness that community members might feel about this project, in which values would be shared to the outside world, is an extremely important consideration. Audra Simpson asserts that when ethnographic qualitative research meets its

"ethnographic limit" (78), the research must stop. Simpson interviewed Mohawk participants and she was met with aspects of refusal. Participants refused to answer her questions over concern that their answers might severely threaten everything that their community had built within the context of a settler colonial society. Simpson writes:

> The ethnographic limit then, was reached not just when it would cause harm (or extreme discomfort) — the limit was arrived at when the representation would bite all of us and compromise the representational territory that we have gained for ourselves in the past 100 years. (78)

In this project, autoethnographic researchers are both the researchers and the researched; therefore, the ethnographic limit would be at our own discretion in collaboration with one another. The authors thought that it was important that we share only some of our understandings and teachings through an autoethnographic approach, constantly reflexive of the delicate balance of respect towards our own communities, regarding the sharing of information, how it is shared, why it is shared, and how much is shared. This is a necessary precaution that we take when we consider the delicate nature of our work from Indigenous communities and people within the gaze of the colonial academy.

Three Autoethnographies at the Intersection of TEK and Animal Studies

1. Moving From Animal Studies to TEK as a Settler Academic. I (Adam) am a non-Indigenous fourth generation Euro-American male settler scholar working at the intersection of Animal Studies and Indigenous Studies. I was raised in a post-industrial city (Buffalo, NY, on Haudenosaunee traditional territory) that in many ways embodied the concept of a "sacrifice zone" (Hedges & Sacco) due to decades of environmental degradation and disinvestment. At the age of 23, I went on my first backpacking trip to the Adirondack wilderness, and I immediately felt a very strong compulsion to spend as much time as I could living in, and working for, the protection of what we think of as wilderness. I quit my job and moved to California, eventually getting hired as a Park Ranger by the National Park Service. A couple of years later, I enrolled in a master's program focused on human-animal interaction, hoping to learn more about some of the wildlife conflicts happening in parks and protected areas in the United States.

Then, in late 2012, the Idle No More movement happened, and I was captivated by it. What an incredible phenomenon — thousands upon thousands of Indigenous people were mobilizing in their communities and on social media in a way that I had never

experienced. I knew very little about the movement, but I was determined to learn more: who were these people who were putting everything on the line to resist tar sands extraction and to fight for Indigenous sovereignty? I didn't have much knowledge of Indigenous sovereignty, but I was curious. So I used the only frame I knew — animal studies — to examine how nonhuman animal imagery was being used within the movement.[3] I think that I learned a lot, and that I contributed something important, with this analysis. But I felt uneasy about asking too much, or saying something inappropriate, as an outsider. I felt I had a strong sense of self and community, and I didn't want to "play Indian." By then I had seen videos and commentaries on the Rainbow Family and other groups of "Pretendians" (non-Indigenous people co-opting Indigenous traditions and ceremonies). I read Philip Deloria's *Playing Indian* and learned about the historic roots of the trend, and how insidious it was.

So I decided to see what other non-Indigenous people were doing that worked well. Were there groups of non-Indigenous people who were forming relationships with, and working to support, Indigenous people in a way that was not relying on harmful stereotypes or perpetuating Western power structures? How did they do it? I began to study the self-proclaimed "allies" that provided support to Indigenous peoples during times of environmental conflict. Through a series of in-depth interviews and participant observation with these "allies" in my home state of New York, I began to understand how meaningful relationships were being built across cultures. But philosophical and practical problems persisted, especially when the views of Indigenous people came into conflict with the principles that I had adopted as a professor of animal ethics and a scholar in the critical animal studies community. When animal rights activists picketed traditional hunts in Ontario, was I to join the protest? I turned to Indigenous scholars for clues, and was encouraged by reading John Mohawk (Akwesasne Notes; Barreiro) and Vine Deloria, Jr. ("American Indian Metaphysics"; "Foreword"), both of whom advocated for a much more benign system of human-animal relations than the contemporary animal industrial complex.[4] And though it did not resolve the divide between sentiocentric and ecocentric conceptions of morality, Jane Mt. Pleasant's study of traditional Haudenosaunee food systems helped me understand that before conquest, the area that I now called home was an agricultural powerhouse that relied heavily on plant-based nutrition and had no need to exploit nonhuman animal labor. After the Clinton-Sullivan Campaign of 1779 (Mt. Pleasant 471-473) destroyed Haudenosaunee agricultural fields and burned the food stores, and after Haudenosaunee land was drastically reduced, Indigenous food systems would be

irreparably harmed. The American historian William Cronon's *Changes in the Land* supplemented Mt. Pleasant's work by showing how the spread of animal agriculture and fenced private property was directly responsible for the political and legal transformation of nonhuman animals from relatives to resources in post-contact New England (ch. 7). It became very clear that protesting traditional hunts was not only misguided, but also harmful in the same way that TEK can be, when deployed as an expansion of Western ideals. It was noble to work for the protection of animal lives, I thought, but not like this — not by protesting one of the few treaty rights left for an oppressed people whose food and labor systems represented a preferable vision for human-animal relations. The alternative, then, was clear: to work towards strengthening Indigenous sovereignty.

As I researched TEK and Indigenous-inspired "ally" groups in New York, I saw practical examples of what we are now calling interspecies thinking as a collaborative concept. Near Ithaca, an ally group called Strengthening Haudenosaunee-American Relations through Education (SHARE) bought a 60-acre organic farm and donated it to the Cayuga (one of the six Nations of the Haudenosaunee Confederacy). The Cayuga had not had land of their own since 1779, when they were attacked and forced to flee because of the invading Clinton-Sullivan Campaign (Hansen and Rossen). The SHARE farm, as it is now known, exists as a gathering place for the Cayuga and their neighbors and supporters, an educational site for students, and a working farm. It is also an experiment in implementing a system of environmental governance that is both fundamentally Indigenous and inherently collaborative. The farm re-asserts Indigenous sovereignty on the land in a small but profound way, reminding us that decolonization is not just metaphorical (Tuck and Yang), but material and practical. The farm also shows the enormity of the task in front of us: 60 acres is a tiny fraction of the Cayuga homeland, and yet restoring it to the Cayuga took hundreds of thousands of donated dollars (what some in the ally group think of as reparations), and faced fierce reactionary opposition, including public protests, signs, and billboards ("No Sovereign Nation, No Reservation") from a politically-motivated group of area residents opposed to an Indigenous presence (Hansen and Rossen 130). The SHARE farm therefore shows the practical difficulty of decolonization efforts, and by extension, the difficulty of implementing interspecies thinking as a collaborative concept on a large scale. Despite this, the farm also provides a template for how it can be done — and how non-Indigenous people like myself can contribute.

2. TEK, Responsibility, and Healing. As someone who is trained in Western science as an ecologist and has worked hard to remain grounded and rooted in my Indigenous

culture as a Nuum and Yokutch person (Mono and Yokut from the Southern Sierra Nevada Range in California), I (Ray) am in a unique position to assist in dialogue between the worldview I inherited from my ancestors and the one brought by conquest. I am highly critical of the use of TEK in the Western sphere, because land managers and academics are attempting to be open to partnering with Indigenous Peoples, but power is not distributed to Indigenous Peoples; instead, power is retained in the Western institutions. In this section I am going to share about what lead me towards ecology/natural resources in higher education and as a career.

When I was little, an Elder taught me that the only difference between human-animals and all other animals is we human-animals have the ability to care for all things. I knew this was profound as a kid, yet I did not understand the depth at which this would guide my life. In our community we are given stories, not answers, and as we grow in age, maturity, knowledge, and wisdom, our understanding of the stories we are given should grow as well.

Having the ability to care for all things is a responsibility, and it is our choice as communities, individuals, and as a species to physically, emotionally, and spiritually fulfill that responsibility or not. As I got older and the depth of my understanding of this story grew, so did my desire to fulfill this responsibility, as my ancestors have done since time immemorial. With all but a couple hundred acres of our Wuksachi-Nuum ancestral homelands in the hands of the US Forest Service, National Park Service, and private individuals, to fulfill this responsibility and tend to the land I decided to pursue ecology in higher education and as a career.

In my journey in higher education I naively believed that there would be space in the realm of ecology for my community's worldview. I have watched TEK grow in acceptance in universities and land management agencies. The difficulty has been the lack of substance in the "acceptance." While there are those who are committed to the redistribution of power needed for Indigenous People to reclaim their roles as caretakers, many seem only interested in TEK as it pertains to their discipline in academia or land management, and are not dedicated to the decolonization of their institution. The space that has been created for TEK is important movement in the empowerment of Indigenous knowledge, but it is problematic when TEK becomes attached to curriculum or used in land management decisions without Indigenous Peoples actually being involved as partners with the power to make decisions. As a representative on a USFS Landscape Restoration Partnership, I have seen this behavior

in action. During a field trip to observe tree mortality and discuss management options, an Indigenous Elder shared some specific aspects of cultural burning and what his approach would be at a site. A member of the USFS wrote down what was being shared, added the information to the burn plan, and proceeded to call the prescribed fire at that location a cultural burn.

In pre-settler times we needed a communal way to reconcile our use of plants and animals. This was done through the development of social norms. When gathering plants, thanks was given before gathering. In addition, an offering was made to the plant and to the land where the plants grow. You always ensure that you leave enough for the next gatherer, whether they are human-animals or animal-animals. When hunting, thanks is always given for a successful hunt. The hunter gives thanks to the animal's spirit for providing the community with sustenance.

As for our responsibility to care for all things — it is our role to learn the biophysical settings, to learn their needs and requirements to thrive. When gathering sticks to make baskets we need to know the right time of year to gather, in order to minimize the impacts and ensure the plants are not killed. As a hunter it is my responsibility to understand deer habitat and ensure that there is plenty of habitat for deer to prosper, and to maximize our use of the flesh, hide, bones, and tendons to honor that animal and the subsistence it brings to our people.

In the conversation about TEK as a practice and TEK as an academic discipline and a land management tool, we need to address the need to heal the wounds of settler-colonial conquest. These wounds are buried deep in the minds, bodies, and spirits of all who live in this land now called the United States. TEK can be a healing space. Building on TEK as collaboration, when Indigenous and non-Indigenous people commit to working together in fulfilling our human-animal responsibility of caring for all things — the land, water, air, and our plant and animal relatives we share our mother the Earth with — in a manner that empowers Indigenous communities, then TEK can be regenerative for both Indigenous and settler as we fulfill our responsibility as caretakers.

3. Tradition, Identity, and Colonization

Terminology. Throughout this section I use several words interchangeably or as translated in Haudenosaunee languages to English:

·"Haudenosaunee" means "Iroquois," "Iroquois Confederacy," "Six Nations," or "People of the Longhouse."
·"Native" and "Indigenous" refers to, but is not exclusive of, North American Indian, Native American, aboriginal, and/ or First Nations.
·"Nation(s)" refer to Indigenous nation(s)/ Native tribe(s) or territories.
·"Our ways" or "our old ways" refers to "Indigenous Knowledge(s) (IK)" or "American Indian Metaphysics," or "our ways of knowing."
·"kahstówa" refers to "feathers" or "feather hat" (Mohawk language).

Tradition, Identity, and Colonization. In this section I use stories of a worldview of my own Indigenous identity, along with my family's history and identity, to provide a brief description of Haudenosaunee ways of knowing — whose traditional family units are actually organized through the use of animals as "clans" and to identify maternal lineage and nation membership. I demonstrate this through my experiences as a Mohawk father, to highlight internal struggles that I have, which may complicate notions of Animal Studies, Traditional Ecological Knowledge (TEK), and Indigenous knowledge (IK), while at the same time shedding light on important differences to valuing animal life through Haudenosaunee ways of knowing.

My name is Hugh Burnam (Hode'hnyahä:dye'), I am Mohawk, Wolf Clan (Haudenosaunee). I am a lifetime learner of our ways, I am a community member. I am a PhD Candidate in Cultural Foundations of Education at Syracuse University. I have two children. Both of them are boys. My oldest son is 13 years old and he is my calm, well-mannered, and big-hearted son who cares for everybody. He is also quick to jab you with a sharp joke if you're not careful. My youngest son is 1 ½ and I can already tell that he is my energetic, outgoing, fun-loving child, who I know will need to look up to his big brother for guidance. As I continue learning about my culture and our ways, I continue to experience the clashes between the "Western" world and our world(s), as pertaining to research, to my personal experiences in my community, and my experiences as a parent.

This year I wanted to try to make my youngest son a kahstówa made of cloth material, black ash tree splint, and various hawk and goose feathers. We had a special occasion coming up and I wanted to gift this kahstówa to him. As I sat there using my own kahstówa as a guide — mine made with eagle feathers (adult men typically wear eagle feathers), red-tail hawk, blue heron, and turkey feathers — I realized that this was not going to be easy. On the other hand, I also had deadlines coming up for projects at the

university, lesson plans for my work as a teacher, and a dissertation to worry about. I did not have time to work on my son's kahstówa, but nevertheless I tried.

I sat there all day, experimenting with feather placement, wrapping sinew on the feathers, stitching them on, etc. I tried my best to have a "good mind" while I worked on the project, as we believe that you are to put your "good intention" into your most important work. Unfortunately, I felt rushed. I kept thinking to myself that this was unfair. It seemed that every time that I wanted to go hunting, tan a hide, study language, or in this case, make my son something nice using feathers, these projects were always cut short because of my work outside of actually being Haudenosaunee, learning and carrying on our traditions.

I continue to think about ways that animal studies may be tied to our ways, aside from clothing and ceremonial attire. I discuss my nuclear family, which prompts me to discuss the ways that Haudenosaunee separate traditionally families. Traditionally, we identify ourselves through the maternal line and nation identity/ membership, of which we have "clans." Clans are themselves organized by specific clan animals such as hawks, bears, or turtles — to name a few. We have hundreds of stories about these animals, all of which can be found within our local territories, and these specific stories account for the ways that our clan families have come to be. Many of these stories are told by Elders and knowledge holders.

Eventually, the family units, or clans, became our governance structure through the uniting of various Nations of the entire Haudenosaunee, which we call the "Great Law of Peace." Our governance structure is organized in a complex system of checks and balances between entire Nations comprised of clan families, all headed by leaders of those clans families — known as Chiefs, Clanmothers, and Faithkeepers (Porter; Barreiro). Our Nations operated traditionally through this system of governance, which is still intact today. This intimate familial connectedness and interaction, as woven through stories and tradition for thousands of years, became important for political strength and unity. All of this centers on our environment and living Beings — both human and non-human.

As I write this section, I reflect on many ways that my Nation and my Confederacy conduct our affairs, speak our languages, and arrange our families that were essentially centered on our environment, which included animals around us. We use animals not only as representative of our families and governance structure, but also in everyday

life as we hunt, fish, and use their bodies for our warmth and in ceremonies to give thanks.

We are taught to use everything that they give to us — we call this "One Dish, One Spoon" — take only what you need and no more. If someone takes more than they need, it is against traditional customs of Haudenosaunee, and it may be perceived as "greedy." On the other hand, if someone doesn't use what they have, say a person doesn't eat all of their food or if they hunt and they don't use all of the animal, it could be considered to be "wasteful." I put these words in quotes because I have heard Elders scold children and young adults for violating these customs, myself included. We give thanks to the animals even when we often take their lives to sustain our own. We have limitations, because we know that we cannot hunt certain animals all year-round and that we also want them to repopulate and replenish their own lives. But there is struggle, because we live in a world that does still does not understand who we are and in many cases still rejects Indigenous peoples and ways of knowing. This makes learning and carrying on our ways, my responsibilities as a parent, very difficult.

To maintain our identity in an assimilatory world today, I think, is the crux of the issue between traditional ecological knowledge (TEK) and Indigenous knowledge (IK). The difficulties of learning our old ways, as North American Indigenous peoples now within this current settler colonial context, have arisen out of the remnants of disparaging histories of forced Christianity, physical and cultural genocide, and the perpetual threat of an assimilatory landscape. Much of the lasting effects of this history took hold as a result of systemic political and "legal" processes, such as: The Doctrine of Discovery (Heath; Newcomb) the Indian Act of Canada (Belanger; Sinclair), the Indian Termination Act (Reyhner; Kelly), the assimilation and cultural genocide efforts of residential boarding schools (Juutilainen; Grande), and forced citizenship via the United States and Canadian Citizenship Acts (McCarthy; Porter; Simpson), to name a few, all which aimed to strip us of our Indigenous knowledges, "savagery," and "barbarism."

Dan Longboat (Haudenosaunee) describes the urgent need for a curriculum that "include[s] stories, songs, life practices, and natural experiential learning in order to become ecologically literate" and to develop a "fluency in nature" (Kulnieks et al 14). He writes about a "common understanding" and the need for Indigenous peoples and non-Indigenous settlers to collaborate together in order to develop a curriculum that "help[s] to resolve environmental issues" by utilizing stakeholders and knowledge holders such as scientists, eco-theorists, community leaders, and Elders. Longboat cites

Bringhurst's observation that most of us grew up in "Industrialized economies and colonial regimes," and therefore think that we don't have a choice when it comes to our relationship to the planet. But we *do* have a choice, according to Bringhurst: "that choice is to *participate* in the biosphere" (269).

In their chapter titled "Becoming Visible," Ryan et al. cite Anishnabe Elder David Courchene, who states, "effort must be made in order to be able to be able to be part of nature," and that the children involved within this way of knowing "deserve the right to feel the land" (23). Ryan et al. also describe the historical ways in which Indigenous ways of knowing — languages, dances, and cultural traditions — were made illegal by Canada (and the United States, I would add). As a result, Indigenous ways of knowing eventually went underground and were hidden from the public, *in order to survive.* Ryan et al. also cite a clan mother from Six Nations, Alma Greene, who wrote a 1971 book titled *Forbidden Voice, Reflections of a Mohawk Indian*, which caused controversy in her community because her work essentially brought Haudenosaunee teachings back to "public domain" (23). The heated discourse and disagreement is clearly embedded, to me, as glimpses into the past — that survival meant to separate Indigenous ways from the mainstream US and Canadian society. This brings to mind many complicated questions for me, including my apprehension in writing my ethnography: What should I share? How much should I share? Why should I share? I have all of these questions, given the history of attempted physical and cultural erasure of my people.

As a Mohawk father, a Haudenosaunee community member, and a scholar, I aim to continue the discussion about the often assimilatory approaches of the Western academy. I want to continue to convey the difficulties of balancing Indigenous Haudenosaunee life-ways with the outside world. Reading this over, I am still conflicted. I am still apprehensive about sharing more, which comes from a deep-rooted survival mechanism that my community gave to me a long time ago. In many ways I am thankful for that instruction, essentially a warning that my community gave to me, as this way of protecting my people and my family — *by not sharing information* — has *become* a traditional teaching for me. This is how we survive. On the one hand, I want to believe the overall goal of the Western academy, to share knowledge and to take part in the liberal ideals of the Western academy, as I have agreed to write this paper. I have chosen to take part in the beginnings of this collaboration. But on the other hand, I turn to the academy and ask these critical questions: What *more* do you want from my people? Why should I share this information to you? You've already taken so, so much. I would even say, you've taken much more than you need.

In one of the first conversations that we had about this paper I stood in my kitchen thinking of topics to write about. As two of the other authors of this paper, Ray and Adam, threw around ideas for their writing, I struggled to come up with ideas of my own. I wanted to discuss the different ways that Indigenous peoples understand their relationship to the Earth and to the beings all around us. I would like to close out my section, as we did early in the paper, by acknowledging the ways in which we are told to give thanks, gratitude, and maintain an important teaching of reciprocity with the elements of Creation.

We give thanks to the people, then to Mother Earth, then to the grasses, medicines, trees, berries, and things that sustain our lives and to the animals and birds — who provide us with food, clothing, shelter, and songs. I wanted to explain that we give thanks to all kinds of beings from the soft winds, our Grandfathers' their thundering voices, our Elder Brother the sun and our Grandmother the moon who walk in the nighttime sky with our Grandfathers the stars. We give thanks to the four messengers, our teachers and to the Creator — all of these elements of Creation are so vital to understand if we are to discuss traditional ecological knowledge, Indigenous knowledge, or animal studies.

While they were talking, I also realized that I was staring at feathers, specifically, hawk, turkey, heron, and eagle feathers. I was staring at my kahstówah. Immediately, I thought of my son's kahstówah — which is now imperfect, and I hesitate to write that it is finished, yet he wore it to his first ceremony. My Mom always told me, "Make sure that there are mistakes in your work." For me, this was always easy to do, and mistakes are clearly made in my son's first kahstówah (I am laughing as I write this). She told me before that "nothing is perfect" and to intentionally keep a thread or two untied. Although she wouldn't outright say this, *to me*, she carries on a knowledge and way of thinking given to her from our family, community, and Elders both alive and not. She gave me — as she often intentionally and unintentionally does — a way of thinking about our work and our relationships to one another. In some way, I hope that we could think about our relationships with animals as imperfect, *as often even colonized now*, but also as relationships that must be re-examined through a traditional Indigenous lens. We must challenge our own colonial thinking, as our relationships to animals, and their relationships to us, are unfinished and always ongoing.

Conclusion. In this paper, we have explored the intersections of TEK and Animal Studies, using the analytic paradigm of interspecies thinking. While recognizing that

differences will remain between interspecies thinking and IK (particularly because of conflicts between sentiocentric and ecocentric conceptions of morality), we have made an argument that the invitation present in Whyte's notion of TEK as a collaborative concept presents an opportunity to bridge the fields, and we have called this *interspecies thinking as a collaborative concept*. We have found parallel lines of thought within Haudenosaunee and Mono and Yokut teachings, and through the actions of their allies. We have explained how we are each positioned with respect to this topic, and have provided autoethnographic accounts that function as both an exploration of the topic from unique perspectives and an invitation to other Indigenous and non-Indigenous people to engage in a critical dialogue situated at this intersection. We contend that autoethnography as a method has enabled the three authors to navigate a complex more-than-human terrain while retaining autonomy over their own ethnographic limit.

Animal Studies compels us to take seriously the more-than-human dimensions of our relationships, and TEK urges us to re-imagine environmental governance. Similarly, this paper extends an invitation to scholars and practitioners in each field to reconsider their practices in light of the other. Future work in this area could expand upon the use of autoethnography to examine case studies of the intricacies of human-animal interaction within TEK-based environmental governance systems. Additional applied scholarship could analyze the collaboration between non-Indigenous Animal Studies scholars and Indigenous scholars in the creation and implementation of TEK-based environmental governance systems. In either case, the efficacy of the notion of interspecies thinking as a collaborative concept could be examined.

Notes

1. While TallBear and Deloria, Jr. use the term "American Indian metaphysic," we prefer the use of "Indigenous Knowledge" (IK) as a more expansive and inclusive descriptor.

2. Here we are quoting Kyle Powys Whyte's description of "TEK as a collaborative concept" as the basis for our description of interspecies thinking as a collaborative concept. We have inserted "interspecies thinking" in place of "TEK" and made the changes indicated by brackets. Though the term "interspecies thinking" cannot be attributed to a single author, in this context we are primarily influenced by Kim TallBear's usage.

3. See Fix.

4. The phrase "animal industrial complex" was coined by Barbara Noske in the 1989 book *Humans and Other Animals*. Noske uses the phrase to describe the complex network of interactions between government, the private animal agriculture industry, and science that functions to sustain and normalize the system of human consumption of nonhuman animals.

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