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Peer-Reviewed Article

Relational Systems Thinking:

That's How Change Is Going to Come, from Our Earth Mother

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with Peter Senge, C. Otto Scharmer, Roronhiakewen (He Clears the Sky) Dan Longboat, Kahontakwas Diane Longboat, Rick Hill and Ka'nahsohon (A Feather Dipped in Paint) Kevin Deer

Abstract

We explore the notion of the need to decolonize systems thinking and awareness. Taking a specifically Indigenous approach to both knowledge creation and knowledge sharing, we look at awareness-based systems change via a Haudenosaunee (Mohawk) two-row visual code. The authors explore the sacred space between Indigenous and non-Indigenous ways of thinking and knowing, to identify pathways for peaceful co-existence of epistemologies. Based on conversations with Haudenosaunee elders and Western systems thinkers, along with data from a DoTS webinar, we identify cross-cultural dialogues as a doorway to healing, to transformation and to spiritual understanding. A reconnection with Mother Earth and with each other is fundamental to disrupting global patterns of trauma and mass corrosion of the spirit.

Keywords

Indigenous Knowledges, decolonizing, mother earth, healing

Kevin Deer: I was at a conference in Montreal because it was dealing with soils, which is an extension of Mother Earth. I talked to them about my experiences of fasts and vision quests, and about the personal healing that I had to do. Before that, I believed that babies cry, weaklings cry, but real, as a real man, I don't cry. Anyway, through the Midewiwin Lodge teachings when they put you out, it's usually before the sun sets. So, in that lodge, I'm asking myself, if this lodge represents my life, so I have to go back to my earliest recollection, where there was pain and hurt. If there's hurt and pain then I have to go back and give this pain back to my first mother, which is Mother Earth. In the construction of my lodge, there is one sapling in the ribs of my lodge that represents my life's journey. I ask in Onkwehonwehneha "Mother how can you heal me?" Because my biological mother is still alive, and she can hug and console me but how do I strengthen my mind about these teachings because I was doubting it. So, I put my tobacco down and waited for some kind of answer or sign that would strengthen my mind that this is a powerful healing ceremony. Eventually, a strong woman's voice spoke in my mind and said, "You see this soil, it's an extension of my body, so lay down and cover yourself with it." I laid down on my back almost naked and covered my body with handfuls of this rich black soil. As I covered my body with this soil, in my mindset it was like these hands and arms came out from earth and began to hug me, from my first mother. 'Wow!!! Imagine that my mom is

Peter Senge: We once had a meeting in South Central Colorado, 200 miles north of Taos, New Mexico. There's beautiful land there, used for thousands of years for spiritual retreat, anyhow we had a small group there. And there was one woman from China, 35 years old or so, a skillful facilitator, I've worked with her in China, but she grew up as a modern young Chinese person, which means she had like zero contact with the natural world. So, there was the opportunity for people to sleep on the land, they didn't have to, but there was that opportunity. We had organized it so they could get sleeping bags and tents. It was a pretty chilly time of year, early October, so it was cold enough that it was a little daunting. And this young Chinese woman had never slept outside in her life. But two people who had spent a lot time camping outside said they we're going to put their tents on both sides of her and she could sleep in the middle and said they would be right there if she needed anything. I can recount a few times where people were so disconnected from nature that they were literally terrified of being alone on the land. So anyhow I'll make a long story short, it was quite an adventure. They made sure she had a really warm sleeping bag. I saw her about three days later, and she had spent three nights with the two guys close by, sleeping on the land. I've known her for about 10 years and when I saw her at the end of this time, I'll never forget her comment, she said 'It was the first time in my life I've been happy, really happy.' She said, 'I've been happy when I did good

hugging me, healing me, and helping me to love and forgive all who have hurt me and for me to come to terms with all who I have hurt and all of that.' I was feeling such elation that I said to myself, if I could choose the moment of my death, I would want it to happen right now at this particular time. This was a pretty profound experience. I imagined that if I had not done this ceremony, I would have died one day and lowered back into the womb of my mother the earth, dead, but here I am going into her womb alive, experiencing it and being able to talk about it. But then all of a sudden self-doubt enters my mind, and asks "did I just make it up?" I was immediately feeling disappointed and let down. So, I put my tobacco out again, I said 'Ista [my mother] you gotta give me something more stronger than this [laughter], that is going to clarify and strengthen my mind without a doubt.' I put tobacco down and within a short period of time she spoke again now saying in my mind, "Ok get up walk around this circle and count your footsteps." I get up, brush off myself, try to think what could that mean. I begin to walk heel to toe and count my footsteps as I follow the cedar circle ring that encompasses my lodge. Where I get to the spot from where I started out from there is a number. The cedar circle, from the teachings I know represents everything in my life past, present and future [inside the cedar circle]. The magical number is 36. When I verbalize it as I'm counting, I immediately got down on all fours and I kissed my mom, because from that moment onward I said to myself, "I don't care what other people may

on a test and I've got all these things I want in my life, but I realized that that happiness isn't real happiness.' And as we continued our meeting, she kept going back to sleep on the land each night. So, the rest of us were sleeping inside meanwhile, she slept on the land every night for seven nights. And I will never forget the other thing she said, 'I've never felt held by the earth, I lay there in my bag at night and I know the earth was holding me.' It was just such a beautiful reminder of how many people, really more than ever before, are growing up with this complete separation. So, Mother Earth, if you don't know your mother, you are kind of lost. So, it's not a small thing.

conclude about this personal intimate experience that just happened when I tell this story, because they can't experience it, they're only hearing a story. But we established this connection, Mother Earth and one of her beloved sons of the Earth Mother. So why was that number so significant? 36 footprints and I was 36 years old. I was also opened up and began to finally allow myself to cry and feel the feeling that I had suppressed for so many years. I forgave myself, I forgave others, and let all the baggage and negativity in my life go. I was renewed from head to toe [transformed]. I tell this story now, at this conference on soils, after I did the opening. This was my experience... Change is going to happen from people going inward within themselves and along with going back to having communion with their first mother, Mother Earth. That's how change is going to come, from our Earth Mother. Because if this could happen to me it's going to happen en masse ... and many people who are spiritually grounded are going to know what's happening, but the ones who never connected to the earth will not know what's going on.

Introduction

Boozhoo nindinawemaaganidok (greetings my relatives). Anishinaabekwe indaaw (I am an Anishinaabe woman). She/Her. Mooz indoodem (I am moose clan). Biigtigong Nishnaabeg izhinikaade ishkonigan wenjiiyaan (is the name of the First Nation that I come from). Waabishki Ogichidaakwenz-anang and Waaba-anang Ikwe Anishinaabemong idash (is what I am known by the spirits in Ojibwe). Melanie Goodchild indizhinikaaz zhaaganaashiiong (what I am called in English). The seven of us, Melanie (Anishinaabe), Peter (American), Otto (German-American), Dan (Haudenosaunee), Diane (Haudenosaunee), Rick (Tuscarora), and Kevin (Haudenosaunee) have recently joined together in what might loosely be called a Circle of Presence (Scharmer, 2009, 2016, p. 374)

around the notion of the need to decolonize (Smith, 1999) systems thinking and systems awareness theory and practice. For stylistic purposes, I (Melanie) will serve as the narrator.

Recently, I had the honour of being in conversation with the Haudenosaunee Elders and Knowledge Keepers and also with Peter and Otto to talk about 'awareness-based systems change.' I spent time with Peter and Otto at the Executive Champions Workshop (ECW) in Stowe, Vermont in 2019, in addition to which we collaborated on a Dialogues on Transforming Society and Self (DoTS) webinar (episode 6)1 and the Global Activation of Intention and Action2 (GAIA) series of webinars by the Presencing Institute. I am also a Faculty member with Peter at the Academy for Systems Change³. In writing this article together we are attempting to reflect, and perhaps model, a more relational disposition to collaborative knowledge creation and sharing. It is ultimately a quest, an ongoing journey as Aikenhead & Michell (2011) describe, a quest for us to become wiser. Conventional systems-based approaches to tackling wicked problems have epistemological foundations in the Western scientific method that pursues 'knowledge' in an analytical way, whereas Indigenous ways of coming to know, as practiced by Elders, is the pursuit of 'wisdom-in-action' (Aikenhead & Michell, 2011, p. 69). 'Fragmentation and isolation' is a belief that understanding lies in studying isolated things and this mindset still dominates everyday affairs (Senge, Scharmer, Jaworski, & Flowers, 2004, pp. 190-191).

Peter told me during one of our conversations in Cambridge, "I came to MIT originally as a graduate student studying something called system dynamics here at MIT." He explained: "There are lots of different western-based types of tools for how to do systems thinking. System dynamics is especially good at helping yourself and others think more deeply about 'underlying system structures.' It's really this *epistemology*, this way of making sense of the world that underlies a systems perspective in my mind." Peter suggested: "You don't even have to use the word 'system' ... so people don't get hung up on what do you mean by 'system'. There are a lot of different tools that you might say are diagnostic for moving from what's on the surface, what's visible, to what's not visible, to the deeper sources of the forces that shape social realities." Perhaps, too, the word 'system' in English conveys it as a noun, whereas in Anishinaabemowin (Ojibwe) a system would be a verb, dynamic and imbued with spirit. And that spirit is in relationship with other spirits.

This article is a process of co-inquiry in a sacred space between Indigenous (the Elders and I) and non-Indigenous (Peter and Otto) systems thinkers. We consider cultural and spiritual perspectives about the role of consciousness in

¹ See https://www.presencing.org/news/news/detail/b2c6a7b3-4d97-4534-83f3-4914818c84d5

² See https://www.youtube.com/watch?v=dpucs12iAZw

³ See https://www.academyforchange.org

awareness-based systems change. Our intended audience includes both Indigenous and non-Indigenous scholars and practitioners who seek a mature, balanced, and peaceful co-existence of distinct knowledge systems in their own scholarship and practice. Europeans and Native peoples historically held different worldviews and we found it difficult to relate to each other in understanding and compassionate ways. It is a schism that still exists in understanding between Indigenous peoples and Western society, says Cree scholar Willie Ermine (2007). The primary goal of this paper is to attend to a deeper level of consciousness that exists in a particular teaching place, a place between epistemologies. This space in-between has been referred to as the ethical space (Ermine, 2007). It is a place that affirms human diversity, where we "detach from the cages of our mental worlds and we assume a position where human-to-human dialogue can occur" (p. 202). It is a space/place that is respectful and generous of spirit, so that we can begin to release "that kind of energy" as Peter once said (C. Otto Scharmer, 2009, 2016, p. 51). The idea of ethical space is a useful construct because it is "predicated upon the creation of new relationships between Indigenous and non-Indigenous peoples" (Kapyrka & Dockstator, 2012, p. 109). This sacred space enables a mindset of connection rather than separation, that allows us to access our deepest capacities for unconditional love (Scharmer, 2020).

In December of 2019, I had tea with Rotinonshon:ni (Haudenosaunee— People of the Longhouse) Elders and Knowledge Keepers at the Gathering Place by The Grand, at Six Nations Grand River Territory. The Six Nations consist of the Mohawk, Oneida, Cayuga, Seneca, Onondaga, and Tuscarora, unified under the Great Tree of Peace. I was there to be in conversation (see Kovach, 2010) with the Elders and knowledge keepers through asemma (tobacco), a tobacco tie offering (see Wilson & Restoule, 2010). Tobacco offerings to the Elders recognizes that their knowledge is often revealed to them from the *spirit world* (Johnston, McGregor, & Restoule, 2018). As an Anishinaabekwe (Ojibway woman) living and working in traditional Haudenosaunee Confederacy territory, it is important that I am guided by their philosophies as much as my own. I invite you to also hear the teachings of the Haudenosaunee 'intelligentsia' (so-called in laughter) that day. Each respected Knowledge Keeper, my Auntie Kahontakwas Diane Longboat, Turtle Clan of Six Nations; her brother, my Uncle Roronhiakewen (He Clears the Sky), Dr. Dan Longboat, Turtle Clan of Six Nations; Ka'nahsohon (A Feather Dipped in Paint) Kevin Deer, Faithkeeper at the Mohawk Trail Longhouse, from Kahnawake Mohawk Territory; and Rick Hill, Beaver Clan of the Tuscarora Nation of the Haudenosaunee at Grand River, accepted the invitation from me to gather and talk about awareness-based systems change. On that mild day in December, beside the Grand River, I respectfully asked Kevin Deer to help begin the discussions in a good way, with the Words That Come Before All Else, the *Ohén:ton Karihwatéhkwen* (the Thanksgiving Address). And then the magic happened, the Intelligentsia started sharing stories.

Indigenous-Settler/Colonizer Relationships: Independent and Interdependent

How do you incorporate multiple ways of knowing, in a respectful way, into the practice of awareness-based systems change? This is not an easy task. Indigenous scholars have explored the nexus of Indigenous place-based wisdom and Western science and have called for an approach that privileges and honours Indigenous intellectual traditions emanating from spiritual wisdom. They have described this in a variety of ways, as braiding (Kimmerer, 2013), as bridging (Aikenhead & Michell, 2011), as a circle of relationship (Cajete, 2000), as encompassing holism (Kovach, 2009), as grounded normativity (Coulthard, 2014), as resurgence (Asch, Borrows, and Tully, 2018), as regeneration (Simpson, 2011), as insurgent (Gaudry, 2011), as regenerative (Tuck & Yang, 2019), and ultimately as an exercise in *humility* (Wildcat, 2009). Indigenous scholars have critiqued research more broadly, cautioning us against embedding Euro-centric values, the objective-versus-subjective and nature-versus-human dichotomies of Western thought (Deloria Jr., & Wildcat, 2001, p. 15) into our research praxis (Smith, 1999; Kovach, 2009; Wilson, 2008; Brown & Strega, 2005; McGregor, Restoule, & Johnston, 2018). Western scholarship for the most part, offers us preconceived theoretical perspectives representing "a Western understanding of how the world works" (Browner, 2004, p. 9). A journey to the nexus of Indigenous wisdom and Western thought begins with an important realization, that both are equal but differentiated. In this article, we would like to explore a further conceptualization of the nexus, inspired by the spirit and teachings of the Haudenosaunee two-row wampum belt.

"Kaswenta is a word that applies to all wampum belts, not just the two-row," says Rick Hill. Wampum belts are a part of the Mohawk culture as well as other Nations, including the Anishinaabeg. One of the most famous uses of Haudenosaunee two-column thinking is the Two-Row Wampum belt, properly called the Tekani teyothata'tye kaswenta (two-row wampum belt). Rick published, along with Daniel Coleman, the most complete oral history that exists today of the ancient treaty known as the Two-Row Wampum and also the Tehontatententsoterotahkhwa "the thing by which they link arms" Covenant Chain wampum belt (Hill & Coleman, 2019). The Covenant Chain embodies these wampum belts; it is the complex system of alliances between the Haudenosaunee and the Anglo-American colonies originating in the early 17th century. Following the chain metaphor, the more formal agreements required a change from an iron chain, which tended to rust, to a silver one. The silver chain will not rust, but it will tarnish, and we need to polish it from time to time⁴. "Repolishing is a process," says my Uncle Dan Longboat, "it brightens our minds and it renews our mutual understanding of peace, friendship and respect." This

⁴ See https://youtu.be/G7aZZrgRnQo

article explicitly privileges Indigenous ways of knowing through telling stories in a two-row visual code. It is intended to brighten our minds.



Figure 1. Two-Row Wampum Belt



Figure 2. Silver Chain Covenant Wampum Belt

Source: https://trentmagazine.ca/services-view/law-land-teyotsihstokwathe-dakota-brant-06examines-canada-150-plus-video-walrus-talk/

The 1613 Two-Row Wampum treaty was formed between the Haudenosaunee Confederacy and the Dutch merchants arriving near Albany, NY. The Treaty belt is made of two rows of purple wampum beads, symbolizing the Mohawk canoe and the Dutch sailing ship, "and these two rows have the spirit of the Haudenosaunee and the Dutch" (Ransom, 1999, p. 27). The oral history of the Two-Row agreement was recited in public multiple times by Grand River Cayuga chief and Faithkeeper Jacob Thomas before his death in 1998. The two purple rows, which themselves are made of two columns of beads, signal internal pluralism even as they remain parallel and never intersect. "The three white rows, which are each three beads wide, symbolize the ne'skennen (peace), karihwí:iyo (good word or way), and ka'satsténshsera (unified, empowered minds) - Chief Thomas translated these as peace, respect and friendship-that will allow the two vessels to share the ever-flowing River of Life" (Coleman, 2019, p. 65). So, today, we are all traveling down the river of life together, but with each people in their own vessel with their own beliefs, languages, customs, and governments. "Native and non-Native peoples are to help each other from time to time, as people are meant to do, and their respective knowledge systems, or sciences, are tools to be used in this partnership" (Ransom & Ettenger, 2001, p. 222). We are to take care of this river as all of our survival depends on a healthy river (Ransom, 1999, p. 28).

The two-row wampum treaty explicitly outlined a dialogical Indigenous-European framework for how healthy relationships between peoples from different 'laws and beliefs' can be established. Dialogue, says Otto, is not about two parties talking to each other. Dialogue literally means 'meaning flowing through.' Hill and Coleman (2019) argue that the treaty conveyed the concept of reciprocity between autonomous powers and serves as a guide for cross-cultural, cross-epistemological research (p. 340). "The purpose of the Treaty is to recognize that each People is to travel down this river, together, side-by-side, but each in their own vessel. Neither is to try to steer the other's vessel" (Ransom, 1999, p. 27). Conscious of these differences in their ways of knowing and living, "the two parties could better understand how to share the river of life in equality and friendship" (Coleman, 2019, p. 65). The Dutch transcription of this Treaty was on parchment paper, while the Haudenosaunee leaders chose to record the Treaty with a Two-Row Wampum belt, made from small tubular shell beads woven into symbolic designs. The different recordings of the agreement demonstrate the 'two paths' of their different knowledge systems (Hill & Coleman, 2019, p. 347). The Mohawks and Dutch were "very aware of translating between cultural codes and knowledge systems, a process that requires both differentiation and equivalence" and that "healthy relationships recognize rather than suppress differences and that the impulse to overwhelm and absorb the other into a hierarchical relationship can chafe and destroy peaceful relations" (Coleman, 2019, p. 67). Rick told me that the safe space between the two peoples is created when both parties commit to truth and respect, which then grows into trust (personal communication, 2020).

Dialogical Framework: Two-Row Methodology

Written texts add "additional complexity" in transmitting Indigenous ways of knowing, "given that most Indigenous cultures are oral" thus we submit to you, dear reader, that some of the teachings offered herein may lose "a level of meaning in the translation into written script" (Kovach in Brown & Strega, 2005, p. 27). Indeed, it is difficult to translate "spiritual languages, and the broad concepts they represent, from one language to another" (St. Pierre & Long Soldier, 1995) but the times we find ourselves in call for us to try. We are willing to attempt the "troublesome task of criss-crossing cultural epistemologies" that occurs when we share Indigenous knowledge and wisdom in a non-Indigenous language (Kovach in Brown & Strega, 2005, p. 27). The history of 'epistemic violence' and 'epistemic ignorance' (Kuokkanen, 2008) within the academic world has often meant that "Western knowledge and worldviews retain a highly disproportionate amount of influence such that any effort to put them into conversation with Indigenous knowledge must be acutely aware of this historical and ongoing imbalance" (Ahenakew, 2017, p. 86). There is also our reliance on our collective modern culture to 'transmit' understanding, says Peter, as opposed to, for example, contemplation and listening to nature. To guard against this

imbalance, we are anchoring our discussion firmly within the two-row teachings of the Haudenosaunee peoples, as Uncle Dan shared with me:

One of the things that's really central, I think, in engaging with different perspectives and different knowledge systems, in how they interact, is this idea of sacred space; it is really about ethical space. Within our context of it as Haudenosaunee, whenever individuals or two things come together to make an agreement, whenever they collaborate, whenever they do that it is two individuals coming together, then the space in between them is the sacred space; you can kind of think about it in terms of how they are respectful towards one another, how they are caring and compassionate towards each other, how they are empathetic with one another. Now looking at prophecy, we talk about this idea of the two-row wampum belt, the Europeans and Indigenous peoples, or now any people that come to North America, and our relationship together exists in the space in between. It is the sacred space, those principles of peace, friendship, and respect, that becomes the sacred way that we work towards one another, but the idea behind it is that we are both sailing down the river of life together. And our responsibility is to help one another but more specifically, the river of life is in danger right now and there will be no more river of life. So, it behooves us now to utilize our knowledge together to work to sustain, to perpetuate, to strengthen the river of life. Why? So that all life will continue. And at the end of the day any social innovation or systems stuff should be all about the continuation of life and however we understand it to be—not just human life but all of it, for this generation right to the end of time.



Figure 3. Photo of Roronhiakewen (He Clears the Sky) Dr. Dan Longboat

The concept and spirit of the two-row wampum has been suggested as a framework or model for simultaneous intellectual co-existence by Anishinaabe environmental scholar Deborah McGregor (see McGregor, 2011; McGregor, 2009; McGregor, 2008), as the fundamental form of reconciliation between Indigenous peoples and settler peoples, that recognizes independence and interdependence, in Indigenous-settler relationships (see Asch, Borrows, & Tully, 2018), and as a model or conceptual framework for non-interference in cross-cultural research by non-Native scholars (see Evering, 2016; Sweeny, 2014; Latulippe, 2015). In our presentation of these stories and teachings we take inspiration from Mohawk poet Peter Blue Cloud's two-column poems, and Daniel Coleman's (2019) analysis of his work.

Excerpt from Peter Blue Cloud's (1933-2011) poem First Light (cited in Coleman, 2019, p. 54):

> First light, a dark outline evening Of a mountain peak and too Pines their morning scent will Carried on first breezes. call,

> stars naked brilliance to pulsing to coyote cries sleep And keening chorus, again, a cricket's tentative chirping, the mind long pauses, the fall of an oak leaf is

a bird's sudden question, dreaming,

Peter Blue Cloud's poetry is a collection of two-column poems. The left-hand column presents Creation as alive. By contrast the right-hand columns descend in one-word lines that trace, in very spare language, an essential thought or growing realization that runs like a thread beside the lush imagery of the lefthand column (p. 56). How are we supposed to read poems laid out like this? One column at a time? Should we read across from left column to right, asks Coleman. The point is that you cannot read Peter Blue Cloud's two-column poems without being confronted with your own habits of thought, your own assumptions about how to make meaning. These habits are "challenged and made conscious by your simultaneous encounter with more than one way of doing things" (p. 56). And that is our point of departure.

Equal But Differentiated

Following the dialogical model laid out in the Two-Row Wampum-Covenant Chain agreement and taking inspiration from Blue Cloud's two-column poems, this article is written, with a presentation of two-column stories. Blue Cloud's poems "remind us that contemporary engagements with Two Row tradition operate, as did the original agreement, within a dialogic domain, not some realm of singular cultural purity" (p. 69). That said, argued Coleman, there is value in keeping one's inheritances distinct. We do not intend here to divide Western and Indigenous worldviews neatly between the two columns, even if we appear to do so. Instead, the two ways of seeing and sensing systems are presented in both the left and the right columns and in the space in between. While most of us trained in the Western traditions of the Academic world have been taught to rely on our "chronically overdeveloped reason" (Sheridan & Longboat, 2006, p. 373) we

instead invite you to sit in circle with us, to practice *generative listening* (see Scharmer, 2009, 2016, p. 12). Our intention is that you are no longer the same person you were before you heard these voices. The topic of discussion was simple yet profound: How do we sense and then shift systems? As you continue reading, here are some practice guidelines for reading two-column thinking. You may find yourself reading one column at a time, perhaps that is how we are conditioned to read it. Instead, you are invited to read the text initially in whatever is your most natural way, suggests Peter. Then, go back and read by going back and forth between the columns every few lines. Try to hear each person's voice as you do this; and then imagine they are talking with one another. See what emotions and feelings are stirred in you as you do this.

We began this article and now continue in the two-row visual code:

Dan Longboat: Systems change for me really is about opening those pieces up, those things are all there, and connecting to that knowledge because that's knowledge that has carried our ancestors. Again, the origin of that knowledge as we come to understand it is, unlike the West, none of the knowledge has come out of the minds of men or women. Particularly in the West, too, it's come out of the minds of men, what about women's minds? If that's how you want to live, okay, sure. But what about women's concepts within Western knowledge, it was totally ignored. So, because of that it's built on a form of paternalism, paternalistic ideas, and at the same time it's based on ideas of power and control. Things have now gotten out of control. We are now going to see fundamental change in the world and we're going to regress ourselves and to pull ourselves back in to restore that sacred feminine, predicated on kindness and compassion, caring, love, that's the real impetus of change. If systems theory and practice can conscience us to that way

Peter Senge: We're not going to change the world, I hate language like that, or teach people to be systems thinkers, but we might find some ways for people to rediscover their innate capacities and love; it's not an intellectual capacity only, it's deeply rooted in an emotional experience. Interconnectedness is a big clunky word, but we also call it beauty. In that moment when you experience something beautiful what happened to the 'you?' You are not even around anymore. Whatever you see is still there, but something happens to transcend that object or phenomenon and you, and beauty just exists. So that's the interconnectedness, that's when that sense of us as separate, our embodiment which is how we navigate the world, somehow is held in abeyance. And something else emerges. So that's not something that has to be taught, but there's a lot of shit that needs to be unlearned. And I do think, this is obviously where the cross-cultural dialogues are so important. Maybe some of the cultures that are around today are a little more wise on this, and maybe one of our

of understanding the world, then we'll see some really fundamental change but unless it does that, it will be same old same old. Because the authority for our knowledge as Indigenous peoples has come from a place of spirit not out of the minds of men and women. Because it has come out of a place of spirit it is perfect, perfect, and it served our ancestors well for thousands of generations. And it will continue to serve us and we have a choice of whether we want to recognize that, authenticate that, activate that and put that process back into place, to help us see the entire system and what's our place in that. It's all about peace, it's about love, it's about compassion, it's about all of those things that come out of the Ga'nigoi:yah (the Good Mind), that's what the Good Mind is. So, it's bringing back the Good Mind.

problems with the dominant Eurocentric Western culture, modern global culture, is we've lost a lot of this wisdom.

Otto Scharmer: How do we sense systems? With our senses. With all our senses. Sensing is a funny process. Most people think they know how to do it. But I claim they don't. People, particularly people who have gone through traditional Western training and education, tend to miss any real education of the senses: how to deeply listen, how to really pay attention, how to actually sense the resonance of a social field. The late cognitive scientist Francisco Varela once suggested that 'we need to become blackbelts of observation,' i.e., we need to upgrade our skills to sense and to see. That idea is so much needed today.

What happens when we sense a social system? We sense its interiority. That's what I call a *social field*. A social field is a social system seen not only from outside (3rd person view), but also from within (adding the 1st and 2nd person views to scientific activity).

Sensing a social field means to sense social resonance. Resonance is an interesting term. Resonance is neither entirely subjective, nor is it entirely objective. It lives in the space between. Like the sacred space that you, Melanie, talked about earlier, the sacred space between epistemologies. Moving into this deep sensing is very much an aesthetic phenomenon, as Peter suggested. The word aesthetic was coined in 18th century Germany and comes from the Greek word 'aisthētikos', literally meaning the perception by the senses. Decolonizing

Rick Hill: Knowledge is innately tied to the land, it's right there, it's waiting for us to pay attention to it, to guide us, through dreams, through visions, through practice, and maybe that's our greatest strength, is getting people reconnected to the source of knowledge. Removing their blinders, unclouding their ears, giving themselves to it so there will no longer be an impediment to our viability as a Nation. What does it take to empower the next generation of thinkers? The last seven years we've been doing a recitation of the Great Law in all of our communities and we're getting better at that, but what we haven't done is a regular recitation of our Creation story. That is the roadmap to this interconnected web, this is the ultimate system that we exist by, and I think in the end if you compare Nishnaabek creation and Haudenosaunee creation in this region there is a commonality about why the world was created and why humans were created to inhabit the land. That's the knowledge we need to uncover. When you can re-visualize creation as a whole entity, a functioning entity beyond the sky world to below the turtle, when you revision it in three dimensions and Dolby stereo you will then innately understand your relationship and your place in that universe. And you won't need a textbook or somebody to explain to you what you need to be doing, you will embrace it. That's what I meant by having faith in the

systems thinking starts with decolonizing and rehabilitating our senses. Because there is a knowing in our senses that we need to uncover and cultivate.

Peter Senge: So, this kind of awareness, now illustrating in the social domain of interconnectedness and interdependedness, is innate. This is who we are. I really believe that deeply, the problem is like anything, if it's not cultivated it will atrophy; particularly in contemporary cultures it's not being cultivated because, as we found ourselves moving from hunters and gatherers, our oldest organized forms, to agriculture or to urban life, basically we stepped further and further away from the natural world and in doing so we stepped further and further away from the natural teacher of an interconnected, dynamic, systems perspective.

unseen. It's worked for 10,000 years. It's begging us now to re-engage with it

Dan Longboat: When we talk about systems, solving problems, the realization that many of the problems that we've heard about today and are examining, you know the larger context of modern society at large, that whole process around the West's disconnect from the environment, has resulted in so many of the problems that we see today, everything from extinctions, loss of biodiversity, global contaminants and toxins, etc., etc., all under the umbrella global climate change. So, the systems piece needs to engage with, and work towards, and recognize, and work to resolve or reconnect to the environment somehow. It is a reiteration of this need to reconnect with the environment. In terms of systems, instead of looking at one-off pieces, it's looking at the whole thing, looking at the whole system the way our ancestors did, the seen and the unseen, the past, present and future, the spirit, the earth and all of a sudden, that's a whole system, that's what we need to bring back.

Diane Longboat: We also had a message in our lodge about that, that by proxy, because these people [Westerners] were not created to be here. By proxy we are the ones with our fires, and they need to come to us

Peter Senge: What we tend to do in Western cultures is abstract. This cultural habit of abstracting as opposed to, if this was a word, "concreting," getting your feet on the ground, feeling it and smelling it. At Executive Champions Workshop the thing that most bemuses me about it after all these years, people ask me how it works, and I can honestly say I have no clue really. I just say, well we hang out in the field. And we let the field go to work on us. Because that's my experience. Of course there's teachings and that's good, and they need to be to the best of your ability harmonious, with a deeper process. And it is that deeper process that somehow goes to work on people. I've watched it so many times and it's like watching a beautiful flower unfold. People by the third day are just starting to relax and they are really noticing what it feels like. I've watched some people, a good friend who is a senior person with the Nature Conservancy, his whole life is about this. It's not like this was a new discovery to him, but by the end of the three days, he was in like a transcendent state, he was so clear, so quiet, so thoughtful. It was clear he was reconnecting with what he knew was his purpose in this lifetime and it was beautiful.

Peter Senge: One of the fundamental issues you will wrestle with, Melanie, are those paradigmatic distinctions between Native cultures and let's call it modern or Western cultures, is that you're understanding lives in stories,

with that honour and respect and humility, to be able to heal and to connect to their ancestors. And they always need to be told that you come from a place that is your homeland. To tell them consistently, the white people that come to our ceremonies. we are happy to share our sacred fire with you because at this fire is the essence of life, of who the Creator is. If you make your offerings, you make your prayers, have your fast, your vision quest, or whatever, we'll help you with that, but you've gotta do your work to find out who is the Creator and what does the Creator want you to do in your life, how do you activate that spiritual mandate that is in your life. We'll help you with it but in that journey of your healing, you need to go back to your homelands, walk in the places of your ancestors, and that will change you forever. Because that is where you belong and we are sharing this land with you, and we also have a duty to share with you how to respect and honour these homelands, and you need to live with those natural laws and those spiritual laws that govern Turtle Island [North America]. You come here and we're not interested in your passport, we're interested in if you will adhere to these natural laws and spiritual laws.

at least your expression of your understanding, lives in stories. These stories are of course archetypal, they are dynamic, there is always an unfolding going on, whereas Western culture which has largely displaced other cultures over the past several hundred years, particularly the last 75, privileges abstractions; succinct, clear, de-contextualized characterizations. "Tell me what you know; don't tell me a story." We go from lived experience, something you can touch and feel and tell stories about, to an abstracted description and we consider that a higher form of knowledge. We consider that more refined, which is kind of bizarre in a way. They both have a function, and my bet is if we really explored this abstracting phenomenon, we would find similar phenomena in the ways of understanding of Native peoples, but it would be different because it would be so grounded in the lived experience.

I think the danger of the Western approach is that all you get is abstraction, you end up with almost no lived experience. Somebody is considered an expert because they can talk a lot about something, or they've written books about it. In the social science or the domain of human living, the consequence of this disconnected abstracting is that we struggle and struggle, with how to 'implement' ideas, how to do it, because we start off thinking that's a lesser kind of knowledge. This creates a false dichotomy between knowledge of the head and knowledge of the hand. You didn't learn how to 'implement walking' when you were two years old. You learned to walk through an

ongoing process of doing and discovering.

This dichotomy between knowledge of the head and knowledge of the hand has deep cultural roots in the West. Michaelangelo could not have a meal with his patrons, because he worked with his hands. Because his knowledge was of his hands, it was a lesser sort of knowledge and that defined his class status. So, these are deep issues in Western culture.

Otto Scharmer: I like Peter's distinction between abstracting and concreting. The problem with traditional approaches to Western science is the misconception that only the former is considered scientific. But that is actually not true. The distinction also reminds me of the work of the British philosopher of science Henri Bortoft, who in his book the Wholeness of Nature differentiates between two types of wholeness: the authentic whole and the counterfeit whole. The counterfeit whole is based on abstraction and more traditional rationalistic approaches to science. The authentic whole is the living whole. To encounter the authentic whole, we need a new methodology that he traces back to the phenomenological work of the German poet Goethe. To apprehend the counterfeit whole, we need to step back and abstract from the individual parts. But to apprehend the authentic whole, we have to step in to sense the particulars, because the authentic whole is not separate from the parts, it is, as Bortoft puts it, presencing itself through the parts.

What results from this second methodology is a view in which

humans consciously participate in nature by presencing the authentic whole moment to moment. That might be an agenda for 21st century science: to decolonize the knowing of the senses, and to develop and cultivate a scientific methodology that allows us to sense and presence what Bortoft calls the living authentic whole. Such a method needed to blend systems thinking with systems sensing and advanced phenomenological practices that integrate 1st, 2nd, and 3rd person knowledge. Maybe our conversation here is part of such a path.

Discussion: Bringing the Soul to Systems Work

A few years ago, Senge, Scharmer, Jaworski, and Flowers (2004) said the time for this type of cross-epistemic dialogue is now because "We may not have the luxury of waiting two or three centuries for a science of connectedness to create a wiser society" (p. 189) and, further, as complexity increases "the need for wisdom grows, even as that wisdom atrophies" (p. 209). Each of us has access to distinct gakiikwe'inana ('teachings' in Ojibway language) and in the Haudenosaunee tworow thinking we value these teachings as different yet equal. So how do we bring these teachings together in a good way? Mi'kmaq Elders, Albert and his late wife Murdena Marshall, offered us all a way to make sense of this cross-epistemic dialogue. Etuaptmumk is the Mi'kmaq word for two-eyed seeing (Bartlett, Marhall, & Marshall, 2012; Hatcher, Bartlett, Marshall, & Marshall, 2009; Sasakamoose, Bellegarde, Sutherland, Pete, & McKay-McNabb, 2017). The twoeyed seeing approach brings together Indigenous knowledge systems and mainstream knowledge systems "side-by-side" as in Toqwa'tu'kl Kjijitaqnn, meaning "bringing our knowledges together" (Bartlett, Marshall, & Marshall, 2012, p. 333). Two-eyed seeing seeks to avoid knowledge domination and assimilation by recognizing the best from both worlds (Hatcher, Bartlett, Marshall, & Marshall, 2009). Two-eyed seeing allows one to make conscious decisions "to activate whichever lens is more appropriate to use or a harmonization of both" (Sasakamoose, Bellegarde, Sutherland, Pete, & McKay-McNabb, 2017, p. 9).

This journey into ethical space begins with us collectively recognizing that "spirit" actually exists (Stonechild, 2016, p. 51). Capra (2007, cited in Capra & Luisi, 2014) argued that modern scientific thought did not emerge with Galileo, but rather with Leonardo da Vinci a hundred years before Galileo, when he single-handedly developed a new empirical approach, by involving the systematic observation of nature, reasoning, and mathematics, the main characteristics of

the "scientific method" (p. 7). His approach to scientific knowledge, however, was visual, the approach of a painter. Capra argued, Leonardo "did not pursue science and engineering to dominate nature," but rather he pursued it to try to "learn from her as much as possible" (p. 7). Centuries later humanity in the West is discovering once again how much she has to teach. "The separation of knowing and doing," that Peter spoke of, and the separation of knowing and sensing that Otto spoke of, that is "so widely accepted today can be addressed if we recognize that knowledge resides in our living in this world, not in controlling it" (Wildcat, 2009, p. 16). Indigenous peoples worldwide have science—they have Native Science (see Cajete, 2000, pp. 273-276) which is a process of thinking and relating that refuses to "decontextualize" (p. 307). This approach to sensing and shifting systems can help "form the basis for evolving the kind of cosmological reorientation that is so desperately needed" (p. 303). A fundamental difference between Native and Western science, says Peter, is that Western science prides itself in the 'scientist discovering' how reality is working versus deeper listening. Yet the nature of scientific discovery, as opposed to theory testing, has always been something of a mystery in the philosophy of science. As Otto says, Goethe was one Westerner who developed a whole way of deep observations and unpacking how scientific discovery could unfold—which has been a strong influence on our current emphasis on deeper listening. So, what Rick says and what Otto says connect directly.

"Listening to you this morning, Melanie, I've been Sundancing for 20 years, and have been to many Anishinaabe ceremonies, warrior dances, and ancestor dances. What you represent here to me is the soul, bringing the soul to systems work," said Auntie Diane. She continued, "What do the unborn generations need to be able to carry on? I think the first and foremost piece of systems thinking is how to create a collective mind again, to develop consciousness. That to me is the key piece." She concluded, "You can build whatever you want to build, you can build a new economy, you can build a new education system, we all have that capacity, I'm not worried about that. I'm worried about the minds of people to be able to do that." A holistic and ecological view of life has been called "the systems view of life" (Capra & Luisi, 2014, p. 70). What is significant in this definition is a recognition that the systems view of life is an ecological view "that is grounded, ultimately, in spiritual awareness" (p. 70). "That's how change is going to come, from our Earth Mother," said Kevin Deer in the opening story. And he said: "many people who are spiritually grounded are going to know what's happening, but the ones who never connected to the earth will not know what's going on."

Awareness-based systems change is a process of co-inquiry into the deeper structures of the social systems in order to see, sense, presence, and shift them. Bringing back *Ga'nigoi:yah* (the Good Mind) is a core concept of that co-inquiry, the Elders told me. The Elders and Peter each spoke about our collective disconnection from Mother Earth and how we must reconnect to her to truly understand the 'systemic nature' (Capra & Luisi, 2014) of life on this planet. Kevin said: "...when people are here on Turtle Island, suffice it to say they must acknowledge the ancestors, you are on this land, understand that you are guests,

that we are the hosts, come from a place of humility and with the utmost respect." He added: "from you acknowledging those ancestors and all of that spirit, to guide your thought processes, you try to come to understand everything is about healing." "Spirit is the life force of this work," explained Auntie Diane. She continued, "bringing back the Good Mind again. The Good Mind cannot be without the spirit being activated, that is the first piece of the healing that they [Westerners] are seeking, it's activating spiritual remembrance in their bones and DNA."

Melanie, Peter, and Otto first explored spiritual awareness and healing together in October of 2019 during the recording of the DoTS webinar, episode 6 (see Figure 4). The topic was Indigenous Wisdom and the Civilizational Shift from Ego to Eco. Kelvy Bird was scribing. The webinar began with an exchange of gifts. I offered Otto asemma (tobacco) and Otto gifted me with a precious amethyst. Peter joined halfway through for the discussion and reflections. It is significant to note that the live webinar sold out immediately at full capacity, with 500 people joining from 56 countries on seven continents. What was the appeal of this topic to a global audience? Perhaps it had something to do with what Peter shared when he walked into the meeting room at MIT, from which the webinar was being broadcast. During the webinar, I placed sacred items from a medicine bundle (see Bell, 2018, in McGregor, Restoule, & Johnston) on the table. Sacred bundles include items "that the spirits have given to a person to carry for the people" (Marsh et al., 2015, p. 7). These were spiritual helpers gifted to me to support my systems change work, a mikinaak zhiishiigwan (turtle rattle) and a migizi miigwan (eagle feather). These were placed on top of a waabooyaan (blanket) that featured the four sacred colors (Yellow, Red, Black, and White) of the four cardinal directions, East, South, West and North. When Peter entered the room, he experienced a visceral response to seeing the medicine bundle on the blanket, the hustle and bustle of MIT campus life faded away, and he said he felt like he "entered into a sacred lodge."



Figure 4: Photo DoTS webinar, episode 6, with Otto, Melanie, Peter and Kelvy

The generative scribing by Kelvy was captured in real time on a whiteboard (see Figure 5). During the webinar, I told a story about how I came to understand the Anishinaabe concept of resilience during my doctoral studies in Social and Ecological Sustainability. I was writing my comprehensive exam paper and reading about the Western concept of ecological resilience first articulated by C.S. (Buzz) Holling (1973), who published a classic paper in the Annual Review of Ecology and Systematics on the relationship between resilience and stability. He said resilience is "a measure of the persistence of systems and of their ability to absorb change and disturbance and still maintain the same relationships between populations or state variables" (p. 14). I reached out to two Anishinaabe language speakers and knowledge keepers and asked them, how would we define resilience in our worldview? My cousin Rene Meshake said: "It is sibiksaagad, sibi (river), biskaa (flexible), gad (it is). You might say that resilience is described as a river flowing flexibly through the land. *Anishinaabemowin* [our original language] is embedded in the land" (personal communication, 2018). My sister Eleanor Skead said: "Mamasinijige is the act of twists and turns and moves. Mamasinijiwan is the water flow, in twisting and turning. There always has to be context with Ojibwe words, "You need to introduce how the word is being used" (personal communication, 2018). Then Eleanor asked me if I was near a river. I was in fact writing my paper while staying outside of Waterloo, along the shores of the Nith River. Eleanor said, "she [the river] is teaching you." So, I made offerings to her, the Nith River, for teaching me about resilience. Kelvy captured this story in the DoTS scribing.

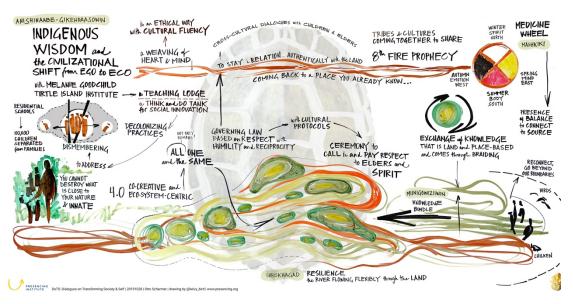


Figure 5. Generative Scribing by Kelvy Bird, of DoTS webinar, episode 6

Participants watching the live broadcast felt something similar to Peter, a presencing to the universe, across their computer screens. This was just before the global COVID-19 pandemic introduced us all to the regular use of webinars

as convening. The session evoked a lively chat in the Chat Box, that included some of the following shares:

- Being taught by a river, moves me to tears.
- How important is it for westerners to acknowledge the genocide to be able to bridge or unify these consciousnesses? It seems that we are asking the very people who we killed to save us from ourselves.
- This is such an important dialogue and is itself enacting the vital and necessary healing and transformations. Melanie and Otto, I am grateful for this enactment and creation.
- Is there a danger of coopting these concepts without full context?
- One of the important things I learned this year (actually from an indigenous elder in Nova Scotia) is that in the West we had a rich indigenous land-based tradition and we faced the first round of genocide coming from the church—this is what the witch burnings were—it was erasing our land-based intuitive, matriarchal culture and systems of power.
- It is a privilege having an opportunity to see the world from a perspective inaccessible to me so far.
- My principle for this is 'change moves at the speed of relationship'. In my Ontario community, I have been part of an indigenous allies working group process that spent several years building relationships and then invited elders to give community talks. In the first talk, the elder Doug Williams [from Curve Lake First Nation], offered a beautiful and simple way to start. 'We need to begin by listening to each other's stories'.
- The chat is as rich as the discussion, love this sharing.
- I am so grateful to be part of this discussion today.
- Wonderful to talk about 'healing' in a grounded, and practical way.

During the DoTS resonance exercise, where the participants were invited to allow themselves to truly *see* Kelvy's drawing, viewers shared *feelings* such as "I feel connected to the land," "I feel warm in my heart," "I feel a great need to change how I live," and "I feel the entanglement." They shared *sensing* such as "I sense it is about deep remembering," "I sense familiarity/resonance," "I sense a possibility that was always there, that we are finally ready to access," and "I sense braiding of cultures, traditions, wisdom and story." And they shared *seeing* such as "I see hope for our future," "I see the river," "I see confluence," and "I see how much I still have to learn." One viewer shared: "The most important

takeaway for me is the knowledge and the insight to change priorities in terms of which laws should govern our lives. I personally resonated strongly with the concept of prioritizing nature's laws on top of human laws. Maybe to find some humbleness here too." Peter shared something during the DoTS webinar that resonated with many viewers—that no matter how far we have been carried away from our connection to Mother Earth, something that is so innate, so true to our nature, cannot fully be destroyed. So, it is 'instinctual' to human beings—connecting to the land. "It's coming back to a place you know." Viewers also shared profound emotions such as "I feel the vastness of what needs to change," "I feel stressed by looking at the way we treat our planet earth and the path we still have to go to reach the wisdom of Melanie," "I feel the longing for connection," and "I sense grief and shame." Awareness-based systems change evokes feelings and emotions and it is to that topic we now turn—healing.

Conclusion: Coming to Know

Late Anishinaabe author Richard Wagamese said that if we leave our strong or painful feelings unattended, then "...those feelings can corrode your spirit" (2011, p. 186). Recall what Kevin shared, "Change is going to happen from people going inward within themselves and along with going back to having communion with their first mother, Mother Earth." Uncle Dan told me, "So what we've been talking about today in its essence is the *revitalization of human spiritual integrity*. This revitalization is really about rebuilding human beings from the inside out." He continued, "It's connecting that human being to themselves, to each other, to a sense of place, to a physical and spiritual world, and there's a system that is involved, a process, to be able to build that." Earlier, he also said that we must "restore that sacred feminine, predicated on kindness and compassion, caring, love—that's the real impetus of change. If systems theory and practice can conscience us to that way of understanding the world, then we'll see some really fundamental change but unless it does that, it will be the same old, same old."

Deep healing, says Tewa scholar Gregory Cajete (2010) from the Santa Clara Pueblo, occurs when the self "mutualizes" with body, mind, and spirit (p. 1130). In healing, we attain deep understanding, enlightenment, and wisdom; a high level of spiritual understanding. This is what he calls the seventh life stage of Indigenous education. There is a knowing "Center" in all human beings that reflects the knowing Center of the Earth and other living things. And Elders have always known that "coming into contact with one's inner Center is not always a pleasant or easily attainable experience" (Cajete, p. 1130). This led Indigenous peoples to develop "a variety of ceremonies, rituals, songs, dances, works of art, stories and traditions to assist individual access and utilize the potential healing and whole-making power in each person" (p. 1130). A transformational element of *coming to know* is "learning through self-reflection and sharing of experience in community" (p. 1131). This allows us, concludes Cajete, to understand our learning in the context of the great whole. Cross-

culture dialogues help us to see that there are as many ways of seeing, hearing, feeling, and understanding as there are members in a group. We come to understand that "we can learn from another's perspective and experience," and we also "become aware of our own and other's bias and lack of understanding through the process of the group" (p. 1131). We become aware of our mental

models, as Peter has described it, and of our blind spots, as Otto has described it.

In writing about prevailing mental models, Peter once said the more profound the change in strategy, the deeper must be the change in thinking (Senge and Sterman, 1992, p. 137). This article is an invitation to sit in circle with us, in the sacred space of non-interference in between epistemologies. It requires a change in thinking and knowing. That is what the two-row visual code invited us to do, and it is what the DoTS webinar invited Melanie, Otto, Peter, Kelvy, and the viewers to do. The space in between is a healing space and a space of peace, respect and friendship, inspired by the spirit of the two-row wampum belt. One of the DoTS viewers shared: "I feel at home here in this space. To meet other people who seek this beautiful space to find connection as individuals and community."

Healing self and systems is ultimately at the heart of the work of Turtle Island Institute⁵ (TII), the Presencing Institute, and this new journal. I founded TII and our new virtual teaching lodge called Mikinaak Wigyaam (Turtle Lodge) as a safe place for innovators and changemakers to sit with Elders and each other, to engage in deep inner work, in order to lead/support our outer work. As Auntie Diane said earlier, "You've gotta do your work." Inside the teaching lodge everyone is a student, and everyone is a teacher. We practice gichi gakinoo'imaatiwin⁶ (the act of great or deep teaching) (Eleanor Skead, personal communication, 2020). As Opaskwayak Cree scholar Shawn Wilson (2008) points out, for Indigenous peoples everything begins with relationships. And Indigenous community is based on relational thinking (Cajete, 2015). Inside the teaching lodge, we engage in a process I've termed relational systems thinking where awareness-based systems change centers mutual benefit, a foundational principle that Uncle Dan shared with me, between all the humans, the non-humans, the unborn generations and our Earth Mother. Kevin offered the following words at the conclusion of our tea together in Six Nations: "We ask all of the powers of the earth, the upper world, lower world, the ancestors, the Great Spirit, with all of their power, strength and wisdom to help us." On behalf of all of us, I say Miigwetch (thank you in Ojibway) and Nya:Weh (thank you in Mohawk) for listening.

⁵ See www.turtleislandinstitute.ca

⁶ See video Gichi Gakinoo'imaatiwin https://vimeo.com/427149336/27c6e0d67e

References

- Ahenakew, C.R. (2017). Mapping and Complicating Conversations about Indigenous Education. *Diasaspora, Indigenous and Minority Education*, 11(2), 80-91. http://dx.doi.org/10.1080/15595692.2017.1278693
- Aikenhead, G. & Michell, H. (2011). Bridging Cultures: Indigenous and Scientific Ways of Knowing Nature. Pearson Canada Inc.
- Aluli-Meyer, M. (2008). Indigenous and authentic: Hawaiian epistemology and the triangulation of meaning. In N.K. Denzin, Y.S. Lincoln, & L.T. Smith (Eds.), *Handbook of critical and indigenous methodologies* (pp. 217-232). Sage.
- Asch, M., Borrows, J., & Tully, J. (2018). Resurgence and Reconciliation: Indigenous-Settler Relations and Earth Teachings. University of Toronto Press.
- Bartlett, C., Marshall, M., & Marshall, A. (2012). Two-Eyed Seeing and other lessons learned within a co-learning journey of bringing together indigenous and mainstream knowledges and ways of knowing. *Journal of Environmental Studies and Sciences* (3), 331-340.
- Bell, N. (2018). Anishinaabe Research Theory and Methodology as Informed by Nanaboozhoo, the Bundle Bag, and the Medicine Wheel. In D. McGregor, J.P. Restoule & R. Johnston (Eds.), *Indigenous Research: Theories, Practices and Relationships* (pp. 175-186). Canadian Scholars.
- Bortoft, H. (1996). The Wholeness of Nature. Goethes Way toward Science Toward A
- Consciousness Partcipation in Nature. Lindisfarn Books
- Brown, L. & Strega, S. (Eds.) (2005). Research as Resistance: critical, indigenous, & anti-oppressive approaches. Canadian Scholars' Press.
- Browner, T. (2002). *Heartbeat of the People: Music and Dance of the Northern Pow-Wow*. University of Illinois Press.
- Cajete, G.A. (2015). *Indigenous Community: Rekindling the Teachings of the Seventh Fire*. Living Justice Press.
- Cajete, G.A. (2010). Contemporary Indigenous education: A nature-centered American Indian philosophy for a 21st century world. *Futures*, 42, 1126-1132. doi: 10.1016/j.futures.2010.08.013
- Cajete, G.A. (2000). *Native Science: Natural Laws of Interdependence*. Clear Light Publishers.
- Capra, F., & Luisi, P.L. (2014). *The Systems View of Life: A Unifying Vision*. Cambridge University Press.
- Coleman, D. (2019). The Good Mind and Trans-Systemic Thinking in the Two-Row Poems of Mohawk Poet Peter Blue Cloud. *Studies in American Indian Literatures*, 31(1-2), 54-82.
- Coulthard, G.S. (2014). Red Skin White Masks: Rejecting the Colonial Politics of Recognition. University of Minnesota Press.
- Deloria Jr., V. & Wildcat, D.R. (2001). Power and Place: Indian Education in America. Fulcrum.
- Ermine, W. (2007). The Ethical Space of Engagement. Indigenous Law Journal, 6(1), 193-203.

- Evering, B. (2016). Know*ledge Constellations and Re*constellating: Narratives to Inform Indigenous-and-Environmental Education.

 https://digitalcollections.trentu.ca/objects/etd-464
- Gaudry, A.J.P. (2011). Insurgent Research. *Wicazo Sa Review*, 26(1), 113-136. doi: 10.1353/wic.2011.0006.
- Geniusz, W. (2009). Our Knowledge is not primitive: Decolonizing botanical Anishinaabe Teaching. Syracuse University Press.
- Hatcher, A., Bartlett, C., Marshall, A., & Marshall, M. (2009). Two-Eyed Seeing in the
- Classroom Environment: Concepts, Approaches, and Challenges. Canadian Journal of Science, Mathematics and Technology Education, 9(3), 141-153.
- Hill Sr., R.W. & Coleman, D. (2019). The Two Row Wampum-Covenant Chain Tradition as a Guide for Indigenous-University Research Partnerships. *Cultural Studies*, 19(5), 339-359. doi: 10.1177/1532708618809138
- Holling, C. S. (1973). Resilience and Stability of Ecological Systems. *Annu.Rev.Ecol.Syst.*, 4(1973), 1–23. http://doi.org/10.1146/annurev.es.04.110173.000245
- Johnston, R., McGregor, D., & Restoule, J.P. (2018). Introduction, Relationships, Respect, Relevance, Reciprocity, and Responsibility: Taking Up Indigenous Research
- Approaches. In D. McGregor, J.P Restoule & R. Johnston (Eds.), *Indigenous Research: Theories, Practices and Relationships* (pp. 1-21). Canadian Scholars.
- Kapyrka, J., & Dockstator, M. (2012). Indigenous Knowledges and Western Knowledges in Environmental Education: Acknowledging the Tensions for the Benefits of a "Two-Worlds" Approach. *Canadian Journal of Environmental Education*, 17, 97-112.
- Kimmerer, R.W. (2013). Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants. Milkweed Editions.
- Kovach, M. (2009). *Indigenous Methodologies: Characteristics, Conversations, and Contexts*. University of Toronto Press.
- Kovach, M. (2010). Conversational Method in Indigenous Research. First Peoples Child & Family Review, 5(1), 40-48.
- Kovach, M. (2005). Emerging from the Margins: Indigenous Methodologies. In L. Brown & S. Strega (Eds.). Research as Resistance: critical, indigenous, & anti-oppressive approaches (pp. 19-36). Canadian Scholars' Press.
- Kuokkanen, R. (2008). What is Hospitality in the Academy? Epistemic Ignorance the Im(Possible) Gift. *The Review of Education, Pedagogy, and Cultural Studies*, 30(1), 60-82.
- Latulippe, N. (2015). Bridging Parallel Rows: Epistemic Difference and Relational Accountability in Cross-Cultural Research. *The International Indigenous Policy Research Journal*, 6(2). http://ir.lib.uwo.ca/iipj/vol6/iss2/7
- Marsh, T.N., Cote-Meek, S., Toulouse, P., Najavits, L.M., & Young, N.L. (2015). The Application of Two-Eyed Seeing Decolonizing Methodology in Qualitative and Quantitative Research for the Treatment of Intergenerational Trauma and Substance Use Disorders. *International Journal of Qualitative Methods*, 1-13. doi: 10.1177/1609406915618046
- McGregor, D. (2008b). Linking Traditional Ecological Knowledge and Western Science: Aboriginal Perspectives from the 2000 State of the Lakes Ecosystem Conference. *The Canadian Journal of Native Studies, XXVIII*,(1), 139-158.

- McGregor, D. (2009). Linking Traditional Knowledge and Environmental Practice in Ontario. *Journal of Canadian Studies*, 43(3), 69-100.
- McGregor, D. (2011). Aboriginal/non-Aboriginal relations and sustainable forest management in Canada: The influence of the Royal Commission on Aboriginal Peoples. *Journal of Environmental Management*, 92, 300-310.
- McGregor, D., Restoule, J.P., & Johnston, R. (Eds.) (2018). *Indigenous Research: Theories, Practices and Relationships*. Canadian Scholars.
- Ransom, J. (1999). The waters. In Haudenosaunee Environmental Task Force (Ed.), Words that Come Before All Else: Environmental Philosophies of the Haudenosaunee (pp. 25-43). Native North American Travelling College.
- Ransom, J.W. & Ettenger, K.T. (2001). 'Polishing the Kaswentha': a Haudenosaunee view of environmental cooperation. *Environmental Science & Policy*, 4, 219-228.
- Sasakamoose, J., Bellegarde, T., Sutherland, W., Pete, S., & McKay-McNabb, K. (2017). Miyo-pimātisiwin Developing Indigenous Cultural Responsiveness Theory (ICRT): Improving Indigenous Health and Well-Being. *The International Indigenous Policy Journal*, 8(4). http://ir.lib.uwo.ca/iipj/vol8/iss4/1
- Scharmer, C.O. (2009, 2016). *Theory U: Leading from the Future as It Emerges*. (2nd Ed.). Berrett-Koehler Publishers.
- Scharmer, C.O. (2020, June 28). Turning Toward Our Blind Spot: Seeing the Shadow as a Source for Transformation https://medium.com/presencing-institute-blog/turning-toward-our-blind-spot-seeing-the-shadow-as-a-source-for-transformation-aff23d480a55
- Sheridan, J. & Longboat, D. (2006). The Haudenosaunee Imagination and the Ecology of the Sacred. *Space and Culture*, 9(4), 365-381. https://doi.org/10.1177/1206331206292503
- Senge, P., Scharmer, C.O., Jaworski, J. & Flowers, B.S. (2004). *Presence: Human Purpose and The Field of the Future*. Society for Organizational Learning.
- Senge, P. and Sterman, J. D. (1992). Systems thinking and organizational learning: Acting Locally and thinking globally in the organization of the future. *European Journal of Organizational Research*, 59, 137-150. https://doi.org/10.1016/0377-2217(92)90011-W
- Simpson, L. (2011). Dancing on Our Turtle's Back: Stories of Nishnaabeg Re-creation, Resurgence, and a New Emergence. Arbeiter Ring Publishing.
- Smith, L.T. (1999). Decolonizing Methodologies: Research and Indigenous Peoples. Zed Books Ltd.
- St. Pierre, M., & Long Soldier, T. (1995). Walking in the Sacred Manner: Healers, Dreamers, and Pipe Carriers – Medicine Women of the Plains Indians. Simon & Schuster.
- Stonechild, B. (2016). *The Knowledge Seeker: Embracing Indigenous Spirituality*. University of Saskatchewan Press.
- Sweeny, K.A. (2014). Re/Imagining Indigenous Western Knowledge Relationships A Case Study, Trent University Indigenous Environmental Studies Program. http://hdl.handle.net/10315/34109
- Tuck, E., & Yang, K.W. (2019) Series Editor Introduction. In S. Windchief & T. San Pedro (Eds.), *Applying Indigenous Research Methods: Storying with Peoples and Communities*. Routledge.

- Wagamese, R. (2011). One Story, One Song. Douglas and McIntyre.
- Wildcat, D. (2009). Red Alert! Saving the Planet with Indigenous Knowledge. Fulcrum.
- Wilson, S. (2008). Research is Ceremony: Indigenous Research Methods. Fernwood Publishing.
- Wilson, D.D. & Restoule, J.P. (2010). Tobacco Ties: The Relationship of the Sacred to Research. *Canadian Journal of Native Education*, 33(1), 29-45.