# **Two-Eyed Seeing and the Language of Healing in Community-Based Research**

Marilyn Iwama Murdena Marshall Albert Marshall Cheryl Bartlett Cape Breton University

> Universities share responsibility for creating obstacles to postsecondary education for Indigenous peoples. This article introduces a community participation model of research and teaching intended to restore health and make the university a welcoming place. Cape Breton University's Institute for Integrative Science and Health draws on the strengths of Indigenous and Western knowledges, basing its integrative Indigenist practice on the guiding principle of "Two-Eyed Seeing" and linguistic components of health such as the Mi'kmaq "healing tense." Critical analysis and dramatic reenactment describe efforts to revitalize language and restore relationships with each other and with the land.

## Introduction

One territory of the Mi'kmaq peoples of Canada is Unama'ki, Mi'kmaki, a place European settlers named Cape Breton, Nova Scotia. There young Mi'kmaq are asking: "What's going to happen to my culture if I go all the way with this education system?" Here is a gathering of conversations several of us have had about this question. The speakers (we) belong to a group of Indigenous and non-Indigenous students, Elders, university researchers, teachers, artists, and other community members.<sup>1</sup> We form Cape Breton University's Institute for Integrative Science/Toqwa'tu'kl Kijijitagnn and Health (IISH). Our institute is the physical home of "Two-Eved Seeing," an Indigenist pedagogy, research, practice, and way of living that incorporates Western and Indigenous knowledges (see IISH Web site).<sup>2</sup> Two-Eyed Seeing grew from the teachings of the late spiritual leader, healer, and chief Charles Labrador of Acadia First Nation, Nova Scotia, especially these words: "Go into a forest, you see the birch, maple, pine. Look underground and all those trees are holding hands. We as people must do the same."<sup>3</sup> The conversations you will read are part of our work to make the university a place where Mi'kmaq and Western ways are respected equally.

Murdena Marshall is a Mi'kmaq Elder and spiritual leader of Eskasoni Nation. For many years Murdena has worked to increase the presence of Mi'kmaq students in university, especially in science-related programs, and to have Indigenous knowledge recognized in those curricula. Murdena retired as Associate Professor of Mi'kmaq studies in the late 1990s. Albert Marshall is also a Mi'kmag Elder of Eskasoni First Nation. Albert is a respected guest at regional, national, and international conferences and workshops. He speaks passionately and often about "the need to (re)awaken our human consciousness to the understanding that the health of humans is tied to the well-being of our Earth Mother" (Bartlett, Marshall, Marshall, & Iwana, in press). Cheryl Bartlett brings a background of research and teaching in the natural sciences with a specialty in parasitology and wildlife diseases. She is non-Aboriginal from the traditional territory of the Blackfoot Confederacy, having grown up in southern Alberta in the village of Duchess. Cheryl became involved in integrative science research and teaching as a member of its original small group of conceptual parents, and she continues to be involved as a full participant in its ongoing co-learning journey. Marilyn Iwama is of Métis and Mennonite descent. She is a poet with interdisciplinary academic roots whose relationship with her coauthors and integrative science continues in her present location in the north-central interior of British Columbia.

We offer this record to help you imagine us doing our work, hands held, eyes open.

Like Indigenous peoples everywhere, Mi'kmaq have suffered staggering damage in the process of colonization. Relationships with the land and thus with each other—have been severed. Where once communities enjoyed sustaining, affectionate, and educative relationships between Elders and youth, Elders now say our youth are in danger of becoming a lost generation. Where once we began working and walking together so as to improve the mental health of youth in Mi'kmaq communities, we soon learned that postsecondary institutions too must become places of healing and growth. In this place and in this way, we are learning what it means to *hold hands* in order to restore relationships and to create a welcoming environment for Indigenous and non-Indigenous students, Elders, children, staff, and faculty.

In Unama'ki, the English language has so supplanted Mi'kmaq that the knowledge Mi'kmaq youth have acquired amounts to, as Albert explains, "everything from the mainstream and precious little from the Mi'kmaq." Diminished fluency threatens the linguistic matrix that creates and sustains the health of individuals in community, an optimal state that includes, says Elder Murdena, "the capacity to be healed in a way that you're back." As one in a constellation of responses to these losses, Murdena has begun teaching about two endangered Mi'kmaq linguistic forms, namely, the *healing* and *spiritual* verb tenses. Murdena offers this teaching in workshops and classes, but much of it occurs around her kitchen table. Albert has named what happens there *Two-Eyed Seeing*.

Two-Eyed Seeing draws together the strengths of mainstream, or Western, and Mi'kmaq knowledges. The binocularity of this guiding principle means that by engaging the overlapping perspective of each "eye," integrative science enjoys a wider, deeper, and more generative "field of view" than might either of these perspectives in permanent isolation. It is important to note here that Two-Eved Seeing neither merges two knowledge systems into one nor does it paste bits of Indigenous knowledge onto Western. As Bartlett et al. (in press) stress, "Two-Eyed Seeing adamantly, respectfully and passionately asks that we bring together our different ways of knowing to motivate people, Aboriginal and non-Aboriginal alike, to use all our understandings so we can leave the world a better place and not compromise the opportunities for our youth...." This is why we emphasize a weaving back and forth between knowledges in which each strand is necessary to the process. Two-Eyed Seeing determines how we think and talk about a topic. The principle guides us toward learning ("results") and directs how those results are written up. As we understand it, Two-Eyed Seeing embodies the inter- in what King (1997) calls "interfusional" literature, that meeting of oral and written traditions. From this common ground or overlapping field of shared strengths, we work to solve besetting problems in our communities, especially the damage done to health by the loss of traditional language and connectiveness.

Murdena explains connectiveness as "the knowledge about an individual's relation to the Creator and all of creation." In connectiveness, the three letters *-ive* introduce the idea of action, of tending toward a state, especially in a regular or lasting way (*Dictionary of Prefixes, Suffixes, and Combining Forms,* 2002), as an accusative look suggests accusation. *Connective* speaks of action essential to being connected, or of some thing that participates in that action: connective tissue, for example. The next suffix, *-ness*, adds to this meaning the state or degree of the action.<sup>4</sup> Thus the word *connectiveness* augments the state of being connected with the action of becoming connected, an important distinction for a verb-based language like Mi'kmaq.

Although<sup>1</sup> Murdena's teachings on connectiveness occur via the discourse of Mi'kmaq spirituality, they resonate with ideas from several other realms. In anthropology, connectiveness is synonymous with the relational aspects of kinship (Jankowiak 1993). Discussions of sustainability, especially those that address spirituality, engage understandings of connectiveness specific to those realms (Dale et al., 2002). Connectiveness inheres in all matters holistic or in any practice of a holistic nature. In Western scholarly discourse, the idea of connectiveness may most closely resemble inter- or transdisciplinarity, a resonance that accounts in part for the close fit of connectiveness with ideas in cognitive science, complexity theory, and complexity science.<sup>5</sup>

These New-Science worlds are populated by such disciplines as quantum physics, mathematics, and philosophy. At the heart of these explorations beyond hierarchically ordered dualities of mind/body and inner/outer reality, is what Gough and Shacklett (2006) call universal relatedness, "that everyday reality is a 'perception' we construct from aspects of the 'unity' within which we are immersed." Certain physicists and mathematicians are attempting to narrow the gap between science and spirituality by developing the model of a numeric-driven universe or "NUMiverse" that they are convinced is beyond the limits of conventional science to explain (www.intellergy.org/NUMiverse.htm.). What impels a great deal of this activity are the deep structures of regularity or synchrony its practitioners observe in the universe, patterns that propel myriad physical, natural, and social phenomena toward order and adaptation (Baake 2003).

Because Western science has largely concerned itself with the study of the material universe or physical reality, to posit reality as a perception or construct of interrelatedness—with a spiritual dimension—can seem an irrational leap.<sup>6</sup> However, it may be that as much as any theoretical or disciplinary divide, fundamental differences in belief are at the root of such discomfort. In fact, much of the provocative new science either builds on or borrows from the existing body of robust and distinguished research in well-established fields (Watts, 2004). Although not a primary focus for integrative science to date, the significant overlap of Mi'kmaq connectiveness with complexity science and cognitive science invites us to reflect on the novel syntheses and data that are emerging in such fields.

Some might describe our efforts as Indigenous (or First Nations, community-based participatory action, decolonizing, or Aboriginal) research.<sup>7</sup> However identified, the preexisting integrative science program seems designed to answer recent national and international calls for research processes that are integrative, holistic, and mutually educative for Aboriginal and non-Aboriginal partners.<sup>8</sup> In Canada, formal attempts to change Aboriginal research methods are often articulated in the language of decolonization. Canada's Social Sciences and Humanities Research Council (SSHRC) considers decolonizing research a viable alternative to the old order that regarded Aboriginal people as intriguing research objects (Ermine, Sinclair, & Jeffrey, 2004).

Not surprisingly, decolonizing research entails a sense of obligation, what SSHRC's (2003) *Dialogue on Research and Aboriginal Peoples* characterizes as "a strong, tightly intertwined, and at turns contested sense of 'you owe us' and 'we owe you'" (McNaughton & Rock, p. 16). Decolonizing research demands a pause on the part of non-Aboriginal researchers; it asks that they listen, wait and be prepared to follow as well as lead. Integrative science is a project of decolonization.

In practice, integrative science also coheres with what participants in the SSHRC dialogue envisioned as an "ideal" beyond decolonizing research. That is, while we in integrative science practice according to decolonizing precepts, we exercise a further mutual commitment to shared goals and methods, new patterns of applied creativity, and the primacy of relationship. We realize these transformative ideals in the practice of co-learning, a process that recognizes Indigenous and Western perspectives as equally significant paradigms.<sup>9</sup>

As we learn together, the journey offers the sacred gift of humility. This means that once new members realize what integrative science requires of them, the number of willing participants can shrink. In fact, Two-Eyed Seeing, our practice of "decolonizing research plus," means that while we seek and are exhilarated at finding allies in unlikely places, we sometimes bristle at imperatives regarding the "scholarly." Yet, chides Albert, we need each other—and each other's ways—if we are to perform the weighty task of legitimizing traditional knowledge in the minds of the young people.

Traditional knowledge needs no legitimizing. But in Unama'ki, a flood of contrary voices threatens the lives of our young people. Bonds between youth and Elders—those who hold and live according to traditional ways of knowing—have been weakened to the point that youth not only lack traditional knowledge, but doubt its worth. Many Elders point to this generation of lost youth and the problems that attend the waning of traditional knowledge as their motivation for participating in Two-Eyed Seeing research. They hope that the example of university researchers and Elders learning together in equitable relationships will in the minds of the young people authorize traditional knowledge as it demystifies the scholarly.

As the break between lost youth and Elders heals and our theoretical practice matures, Two-Eyed Seeing emerges as a rite of resurgence. Such scholarship of common ground transcends traditional institutional practice and transforms disconnection and fear.<sup>10</sup> We come together over tea, over the sometimes *nothing* in between Western and Indigenous stories of our interactions with nature, believing that such a meeting of language and consciousness will birth a *something*, a way of thriving in mainstream institutions while still thinking, believing, seeing, and feeling as Mi'kmaq.<sup>11</sup>

From the Western stories of our interactions with nature—what is usually called science—we bring to the table the scientific method. We observe the cultural dislocation of Mi'kmaq youth and wonder, "What if university was an integrative experience that honored both Mi'kmaq knowledge and Western?" And we imagine, hypothesize, that Mi'kmaq youth will thrive in Western institutions by reconnecting physically and spiritually with nature in an integrative environment. We test in the lab (sweat lodge, classroom, laboratory, kitchen) and in the field (forest, beach, ocean) by bringing Elders/professors and youth together, interweaving Indigenous and Western knowledges through conversation, experiment, ceremony, lecture, and feast. But how and to whom do we communicate the results, our "interstanding"?<sup>12</sup> Western science would have us propose, argue, analyze, summarize, resolve, and publish provable results. Yet the proof of Indigenous traditional knowledge is "the rigorous laboratory of survival" (Berkes 1999). Mi'kmaq teachings of indirect instruction and non-interference suggest that the best we can do is offer up our experience to those who will listen. And wait. After all, says Albert, the heart of what we consider is the unarguable: faith, hope, love.

Coming together over the unarguable has led us to the encouragement of journeying others. With happy gratitude, we read Coles's (2006) determined paddling beyond conventional boundaries of form and "academ(entia)" (p. 23). We appreciate Fels's (1998) daring with performative inquiry, a methodology that also explores the in-between of intersecting worlds. And Maturana's and Varela's (1987) energetic reminder of the invisible obvious, how we do not see what we do not see until some interaction dislodges us. So it is not quite paradox that approaching language loss from a Two-Eyed perspective is a way of coming home. Some of us relax into the comfort of storytelling, others into the familiarity of ideological and lived ambivalence, that liminal zone between cultures (MacLeod, 2001).

Our journey into the healing potential of language is an inexorable course through spirituality. Research is most often not a practice of integrating spirituality and scholarship, and researchers who would attempt the task may yet lack the tools and methods for it. The challenge is not necessarily less for Mi'kmaq, who have survived a great range of devastating losses and injuries over the generations. What Albert names *the modern context* is for many Mi'kmaq an age and space of disconnection from traditional spirituality. Moreover, explains Murdena, not everyone can use *spiritually attached* language.

We accept the primacy of spirituality within the Mi'kmaq world view. Nonetheless, our first steps toward any form of interpretation are tentative. As Waldram (1997) has found in his work with Indigenous peoples incarcerated in prison, great caution is required when engaging the scientific method and other Western knowledge traditions with Indigenous spirituality. Albert's estimation of the capacity of Western methods alone to explain the spiritual aspects of ontology is less equivocal: there is no explanation. Any record of integrative research must meet mainstream academic and Indigenous standards of thoroughness and precision and be harmonious with Mi'kmaq spirituality and protocol. At times, the present narrative can only gesture in the direction of the spiritual.

A final note about form. Albert and Murdena often encourage us to record the two-eyed talk that happens over tea. Whoever transcribes the audiotapes listens many times again to those words in a technological, physically solitary, and yet vivifying adaptation of the oral tradition. We offer the resultant script as an aural/oral countertext to this more conventional introduction, with the suggestion that the conversations be read aloud—embodied—in several voices. These written words represent a professional and personal network of intercultural relationships that have been and will be years in the making. As researchers and teachers, we are learning which parts of traditional knowledge may become public. As Indigenous peoples whose connectiveness with our cultures and those who enliven them has been damaged, we are learning to integrate knowledge that was withheld and devalued.

And so we offer a narrative that through telling portrays listening. The writer has taken care to reproduce the Elders' narrative verbatim. Elsewhere, similar narratives appear in poetic form on the page, especially to enact the non-linear nature of Mi'kmaq speech patterns and ways of knowing.<sup>13</sup> While preserving non-linearity, the dramatic form of this rendering also highlights the relational spontaneity of the Two-Eyed Seeing process. Read aloud in a classroom or workshop setting, the transcript, or play, can be a useful pedagogical tool for modeling research practice. Small liberties have been taken with the scholarly voice so as to highlight the researcher's role as student and co-learner. This means that Marilyn is sometimes a composite character whose words represent our collective voice.

From time to time, we grow anxious about the pace of our journey, what seems to be working and what not. Murdena reassures us that "things come together and things fall apart." In a similar vein, Campbell (1995) has wondered aloud what she will ever do with all the stories she hears from the Elders, the "lifetimes of 'stuff'" in her memory, does she even know what it means? Her teachers also counsel patience: "When you need it, or you have had the experience to understand it, your spirit will give it to you" (p. 2). Sometimes, says Cariou (2002), a story is just a story, "and all the more valuable for that-far more relevant and vital than a fact, a statistic, a piece of corroborating evidence" (p. 50). Here, then, is another story, from a circle of stories, about healing.

*Murdena*: This is the Mi'kmaq consciousness. Where they have the past, present, future, and they have the healing tense and they have the spiritual tense.

*Albert*: How do we fit this healing tense into the modern context? The knowledge that these young people have managed to acquire up to date is everything from the mainstream and none, very little from the Mi'kmaq. So I think there, that's where there should be some understanding. That despite a lot of shortcomings that they've had to put up with they're doing a great work. You know what I mean?

Marilyn: I do. Yeah. For sure.

*Albert*: The more opportunities we provide these young minds to learn—for instance, spelling—from the Elders the more we reinforce in their

minds that to think and to believe and to see and to feel as a Mi'kmaq is all right.

*Marilyn*: You know, the other day I was in the lab with some of the students. And I was "being Murdena": "It's time you young people learned about the healing tense." Remember when you told us that, what was it, three years ago now?

So I talked to them a little bit about the healing tense and one of them, Pie'l, he had all these examples. And I thought, "Here's this strange Métis woman, old as your mother, and here's your white professor and you, young Mi'kmaq man, have the courage to walk to the blackboard and keep trying to come up with examples of the healing tense."

Murdena: That was wonderful.

*Albert*: Who's this guy?

Marilyn: Pie'l.

Murdena: Speaks several sentences to Albert in Mi'kmaq.

Albert: Responds in Mi'kmaq.

Marilyn: as Murdena reads sotto voce from notes ... He's Tyson's brother.

Albert: Okay yeah, Pie'l, Paul.

*Marilyn*: Yeah. Pie'l. I told him, just like you say: "this is the tense that helps you heal or the signal that tells you you're on the mend."

So. How does it look, what he's saying?

*Murdena*: He's quite, he's fluent. Like I say, maybe not the proper Mi'kmaq but.... Both his parents are teachers. His mother is a high school teacher and the father is a teacher also. You know most kids would say he has all the breaks. But maybe what his mom knows and studied is not the same thing that he's doing there. The same with his dad. If you look at what the young man's saying it's alright. Those are alright.

Marilyn: They're alright?

*Murdena*: Those are. Some of them are. Kesa'lunek. No. He's wrong. It's not *nek*. "We love you." Yes "we love you." It's *kesalulek*.

*Albert*: But you know—and I don't know what this writing is. I don't know. Because I can't read any of it. But I think I would have to say that I really applaud these young people. Not only because they're making an effort. But I think what they're trying to really, mostly, most importantly, is that they're trying to convey to you that "I am a Mi'kmaq and I am who I am. And this is what makes me a little different than the rest of you. Because the way I see things, the way I heard these, the way I understand these things—"

Because what should not be forgotten is: they're not even concerned whether they're right or wrong in spelling that. Because they have such, this inner understanding of what collective consciousness is that, if someone of an authority is to read this, then they'll correct it anyway, just like Murdena did. You know what I mean? And once these, these corrections are made, then those corrections will then become ingrained. *Marilyn*: So you would say *kesoqse'anek*. You would say that's healing tense then, because of the *-nek*?

*Murdena*: No. No, but because, you can't just say these and then.... nonono. You have to complete *kesoqse'anek*, "I got burned," you know, on my hand my foot my head. They use it for people who use too much dope. Their heads are "fried," *kesoqse'anek*. This is not even that. For a person it'd be *kesoqse'*.... So this is not the healing tense but another tense.

*Albert*: Like I told you, what has to happen now before Murdena decides to go home is to modernize the language. Can we somehow, finally, find out exactly where and how the healing tense could be used?

*Murdena*: You have to take full responsibility of your actions. See, in the Mi'kmaq world you have to give recognition to everything. Misdeeds good deeds past deeds. You know? Anything. You have to give that acknowledgment. Everything that you do, you have to acknowledge it. And the listener, if he's a Mi'kmaq speaker, will understand at which state of reality are you in. Healed in a way that you're back. Reinstated into the family. If you don't go into that tense you cannot heal, you will not have healed.

*Albert*: Can we somehow, finally, find out exactly where and how the healing tense could be used? Any action that is not sociably, or whatever you want to call it, is not acceptable, would mean how do you treat living things how do you treat your family, your community, your tribe and your nation and everything else? My understanding is that that's the only time where healing tense is applicable. Anything outside of that—getting burnt, getting sunburnt, freezing to death—there is no need for forgive-ness because these are all—

Murdena: pointing to notes

This is no need for forgiveness: kesoqse'anek.

*Marilyn*: Remember one time we were talking about that deep knowledge.... you've been sick and you look back on it and you have a big understanding of what happened.

Murdena: Yeah, yeah. It's your own self-reflection.

Marilyn: So you still call that the healing tense?

Murdena: I still—it's meant with no animosity. It's a gentle tense.

Marilyn: Yeah.

Murdena: It's not-kesogse'anek. It already happened. It's gone. It's ...

*Albert*: And what we are seeing now is it can't go on anymore because we know what you are doing to us. At the same time we have to be very very humble and acknowledge that the, I think it's about time that we develop a new fruit, a fruit that has a multi, multi colors into it. Red, white, black and yellow. We have to develop that fruit in which, because there's so many people out there that are sharing our ideologies our philosophies as First Nations people but they have not been acknowledged enough.

Because for the sake of—in my humble opinion—for the sake of validation into the minds of the young people, I can say this, I can emphasize to them over and over again the importance of being who you are. Mi'kmaq in this case. And they will not hear me. But they will hear someone else. You know what I mean?

So we need the institutions. We need our brothers and sisters from other cultures to help us say those things because as those white brothers, as all our brothers and sisters are saying it, since our young people are very much on the threshold they don't know if they should continue going on in the direction they have been going on for years. Or should they reflect for a moment and say 'What's going to happen to my culture if I go all the way with this education system'?

And there is nothing in between to satisfy, satisfy that question for them.

*Murdena: Awunta'se'anek. "*I forgot"? *Awunta'se'anek? Awunta'sutuwanek. Awunta'sutuwanek.* That's not a tense either. I don't think. This is a verb. Yeah. You're apologetically saying you're sorry it happened.

Marilyn: Healing tense

*Murdena*: Not exactly. The bearer of "I forgot you" doesn't get repercussions by using this tense. That softens the blow. It's almost a healing tense. *Marilyn*: Like "head them off at the pass"?

Murdena: Yeah.

*Marilyn*: So if something has a *-nek* ending it doesn't necessarily mean it's a healing tense?

*Murdena*: It'll be connected somehow to the healing, to the healing part of the situation.

Marilyn: Right.

Murdena: So it's a healing. But beyond.

*Albert:* I sense the disconnection has been so prevalent with this generation. And very little of the language has been spoke—so actually we have not only been disconnected, we have not only been disconnected physically from our natural world but most importantly our spiritual connection with the natural world. How do you treat living things? How do you treat your family? Your community? Your tribe and your nation and everything else?

*Marilyn*: So is there a way you can use the healing tense when you hurt Mother Earth? When we realize what we've done to Mother Earth?

*Murdena*: It's got to be a confrontational process. When you go into that tense somebody has to hear you. So they know you're beginning to heal and therefore their attitude sort of wants to, has to, change to accommodate you.

*Marilyn*: So you wouldn't just come in out of the blue and just say— *Murdena*: and just say—

Marilyn: "Oh, I was drunk," or, "Oh I shot the squirrel."

*Murdena*: It's not a light tense that you can jump into for one word and then jump out of it again. Otherwise you'll make no sense. People will just look at you and say, "My is she crazy."

*Marilyn*: So it says just as much about the relationship that's been going on in the circumstances as it does about that action?

*Murdena*: Yes. Yes. It does need an audience. It does need players. Otherwise it doesn't make any sense. So it's a queer tense. So I guess the essence of that observation is, when there is a spiritual aspect of our being then there is no explanation for how that works. I've often said that *-nek* was so spiritually attached language that not everybody can use it.

Albert: Can we somehow finally find out exactly where and how the healing tense could be used?

*Marilyn*: We were trying to talk about Mother Earth. You know if you hurt Mother Earth some time. Like, he was talking about cutting the tree. You know? You can cut the tree for a good purpose and say thank you and maybe give tobacco and then you would just say "I cut the tree."

But if you cut the tree just for some wrong reason then could you use the healing tense like that [gesturing to where Murdena is reading from class notes]? He was trying to imagine—

Albert: reading aloud

Temaskalekaq stoqnak.

Murdena: reading aloud

Temaskalekaq stoqnak. No no.

Marilyn: No? Not there?

Murdena: trying to read notes

Albert: Okay then ...

Murdena: smiling

This is something wrong. No. It's not, this is not.

Marilyn: No?

Murdena: This should be temaskeka'naq.

*Marilyn*: So is there some way you can use the healing tense when you hurt Mother Earth? Is there some way that the healing tense comes in? When we realize what we've done to Mother Earth? Even as a group. Individually or as a group?

Murdena: sounding examples in Mi'kmaq

*Albert*: I'm just trying to think of an example in—we tell our kids not to not ... to use a firearm respectfully. And when you get into the discussion as to why you shouldn't be shooting at squirrels ... well "I didn't mean to shoot it" is not a thing.

signs of deep thinking on both sides of the table accompanied by sounding out of syllables

Murdena: No.

*Albert*: Yeah. I'm just going through various terms. But that's denying it. Yeah, that's denying it. I guess you have to add something before or after. To actually shooting it.

Murdena: It has to be—

Albert: It can't stand alone.

Because what I keep hammering home on all the time—and I truly believe this—when you're translating, it isn't always possible to maintain the essence of that concept. And if translated into another language, there's got to be a percentage of it that's going to be fabrication. I truly believe this. And I know most of us, like myself, I optimize on those fabrications sometimes, maybe. You know what I mean?

*Marilyn*: Can you imagine putting it in a dictionary in a way in some way that it can—

*Murdena*: Oh I do, I do. Have a special place of its own because of its specialty.

*Marilyn*: I mean, would you even put it, does the spiritual tense belong in the dictionary or should that not be in a book?

*Murdena*: No. They're in English. We could put them down as "past," "present," "future," "long past," "long long past." That's the way from the English point of view, that's what it is.

Marilyn: Yeah.

*Murdena*: But we could also put that same diagram, same verb and do those things "This is The Mi'kmaq Consciousness. Where they have the past, present, future and they have the healing tense and they have the spiritual tense. Which is not used all the time."

*Marilyn*: So that would capture the structure.

Murdena: Yeah.

Marilyn: But the deep learning about it has to happen somewhere else.

Murdena: Yeah.

Marilyn: Yeah, yeah.

*Murdena*: The spiritual component is something that the modern society has difficulty trying to understand and trying to find out if there's a correlation between that and what makes us well.

Now this is the spiritual tense that I hear the old people often use when they have a vision. We could use this too. I don't drink but I often dream of things. I was at a par—

I even told Albert, "One day I was at a party, Al, and you know what? I drank!"

He said, "My God!" He said, "Don't drink."

I said, "No, I didn't. This is a dream." I said, "It's a dream, Albert.

When I went into the sweat, I felt so beautiful that day, when I came out. I put my head to the ground and I heard, you know if you can say, I heard the grass grow. This is what I heard. And I felt so beautiful. It happened to me once before when Denise was dying. Our daughter Denise. I went into a spiritual pause or whatever. We were in Albert's pickup truck.

And he said, "Murdena, pray. And pray with me." And he said, "Pray out loud."

And I started to pray in Mi'kmaq. And I was praying hard and talking to God and finally came to and I said, "Albert, was I praying all through this?"

And he said, "Yes, you were."

But I wasn't praying. I said, "If you feel like this meeting God, then it's worth it." But I wasn't praying in my mind. I was somewhere else.

*Albert*: And I don't know. That's answering it in a sort of a roundabout way. Because I think what we are being guided by is that we try to conceptualize everything from our humanistic capacity from our human mind. And in most cases we can't. *more tea and food appear* 

Marilyn: Oh, thank you.

Murdena: Oh thank you Albert. Wela'lin.

Marilyn: You know how to care for people, Albert.

Murdena: Well, for two months when I was sick he took care of me.

*Marilyn*: I'm still trying to understand how someone could use the healing tense about Mother Earth.

*Albert*: Now when you hear, when you listen to the Elders, two words pop into mind right away: *quantitative* and *qualitative*. You have to know the difference between the two and allow that Elder to finish what they're trying to convey before you interrupt them.

Because that gift, I understand, is not shared by everyone. The gift of being able to use words in the most concise way, in the most effective way. And it takes too many words sometimes maybe to highlight it. That's not looking for justification. That's just the way it is.

*Murdena*: To understand the ambiguity of our language. Not the language, but the spirit of one's self. Some cultures, in some native cultures the stone is animate but they tell you that in English. They don't tell you in your own language. It's just the way it is.

*Albert*: The only thing that separates me and the animal, I guess, is my ego. But otherwise we're no different. I mean a lot of people say I have nothing in common with the dog or with the rock or—I don't know, rocks eventually will die I guess. I don't know, but anything that's alive we have so much in common.

Marilyn: And do rocks have families?

*Murdena*: I'll tell you. The rock, the way the rock is. A rock is a rock. A rock or a stone or anything is inanimate.

It's inanimate, when you have it in your hand. It's on the ground and all of that. But they can become animate. And they can become animate if it's a mountain of rocks. Then all of a sudden it becomes animate. Or if they use the rocks for a sweat they become our grandfathers. They become animate again. But if you said that a rock, rocks are, have families, you will say, "no," 'cause they're individual and they have fallen off a mountain or pebbles on the beach or anything like that, they're individuals, individual rocks.

But soon as they fall off from, as long as the mountain is intact or they become associated with other rocks in a spiritual activity, they become animate.

The answer is "no" and "yes."

Marilyn: And can we talk to them? No.

Murdena: They talk to them when they're in a sweat.

Marilyn: When they become animate.

Murdena: Yeah.

Marilyn: Yeah.

*Murdena*: And when they do a spiritual activity with them, with the mountain, you know there's a, as you put it, a "brother" or "sister."

*Marilyn*: But we have to be in the same spiritual place or activity to be able to talk to them?

Murdena: It has to be.

*Albert*: One time these scientists, whether they were actually exploring the possibility of spirituality in other beings other than humans that could possibly be. But what they were researching on was, for example, a dog. How can a dog by licking his wounds help that wound to heal?

So they tried to replicate that scenario by putting a muzzle on a dog. By using a swab to extract dog saliva or whatever and apply it on the wound. Apparently that didn't have any effect.

So they next tried to replicate the texture of the dog's tongue by putting all those crevices etcetera and all that stuff. And they also applied it with that and still no effect. They tried to replicate the actions of a dog. Which none of it really did any good of healing his wound.

*Murdena*: This is the Mi'kmaq consciousness. Where they have the past present future and they have the healing tense and they have the spiritual tense.

*Albert*: Because I think the guiding principle that was really there, is there when you have the language, is that there is no need for you to express it. But you have this feeling that I am part and parcel of this creation. There is no separation. So therefore I don't have to be that innovative to try to come up with words that would clearly explain how and why am I so connected to it. Because it's embedded into one's consciousness. And the listener will understand.

## Making Most of the Lost in Translation

We have offered a brief glimpse at the challenges and rewards of working together toward healing through the revitalization of Mi'kmaq language. Written in English, our account stands as an incomplete and inexact

rendering of an oral tradition. Moreover, the healing and spiritual tenses are highly nuanced language forms once absorbed in the daily life of fluent communities, not lessons learned in the classroom. And yet, says Albert,

We have to sit down somehow and try to come up with ways and means as to how we can connect or use the healing tense, not so much to invoke guilt but rather reconnect people, you know, how we are intimately connected, interconnected with our natural world.... So that reconnection, I think, has to be somehow brought back in to the educational system somehow. It has to be a lot of collaboration between people that are not native ... and the people that have an in-depth understanding of their own culture, to come up with some kind of a very innovative way in which we can apply the healing tense to help them reconnect with nature.

The urgency in Albert's conviction impels us to be part of this tentative relationship, to live out research as a way of helping our youth and ourselves regain that essential restorative connection with nature.

Our group consists of those fluent and literate in Mi'kmaq, some who speak Mi'kmaq with ease but cannot read or write, some who understand spoken Mi'kmaq but reply in English, some who are learning to read and write, some who understand only what is translated for them. Only one of us (Murdena) is fluent and literate in both Mi'kmaq and English and holds an advanced postsecondary degree. This is why realizing interconnectiveness in our research involves doing our best with what we have as we mentor Mi'kmaq scholars for the future. Practicality and imagination help us across the linguistic divide, even if it means, as the transcript shows, that postsecondary students like Pie'l must sometimes make do without a fluent Mi'kmaq speaker to guide them in person. Don't worry, Murdena reassures us, to discuss the healing tense even with a Metis researcher and white professor can be wonderful.

We take care in this article to reproduce the orality both of Mi'kmaq traditions and of our research methodology. We meet the constraints of writing by rendering most of our conversations verbatim and relaxing the conventional scholarly tone. Nonetheless, in the divides between oral and written Mi'kmaq and English lie ambiguities that we must negotiate by seeking analogies and approximating meaning. One level of ambiguity resides in the untranslatability of certain words and concepts. In the case at hand, there is no healing tense in English. English tries for the healing tense with phrases or complete sentences, as Murdena shows us with one of Pie'I's examples ("Their heads are 'fried' for *kesoqse'anek.*"). And still the example is not the healing tense, in spite of the *-nek* ending. When Marilyn tries to understand Murdena's explication, she resorts to metaphor ("'head them off at the pass'?" Albert also confronts the untranslatable when in his search for examples of the healing tense he admits, "well, 'I didn't meant to shoot it' is not a thing."

Compounding this lack of linguistic equivalents is the inherent ambiguity of the Mi'kmaq language. Mi'kmaq is so intimately tied to a collective identity, to one's relationship with self, others, and nature, that to understand it is to understand, in Murdena's words, "the spirit of one's self." The healing tense is a language form that one learns in the context of relationship: "It's not a light tense that you can jump into for one word and then jump out of it again," warns Murdena. "Otherwise you'll make no sense." Marilyn's reply highlights the primacy of connectiveness to the healing tense: "So it [the healing tense] says just as much about the relationship that's been going on in the circumstances as it does about that action."

The interdependence of tense and context means that discussions about these language forms involve translation across linguistic and situational divides like the one that Pie'l encounters in the classroom. Hence Murdena's caution that the healing tense must involve what she calls "a confrontational process." "When you go into that tense somebody has to hear you. So they know you're beginning to heal and therefore their attitude sort of wants to, has to, change to accommodate you." The most rigorous or sympathetic classroom environment can facilitate only a partial learning, introducing students to spiritual language they will fully comprehend and use in their relationships with each other and with the land.

Sometimes the greatest divide we face lies between honoring the interdependency of all beings in all aspects of being—spiritual, emotional, physical, and mental—and surviving an academic world that privileges the "intellectual." We manage this divide by interweaving epistemologies and methodologies, by accepting that any translation is sometimes a foolish endeavor. You might recall Albert retelling the story of the researchers who tried to mimic—translate—the healing effect of a dog licking wounds. Albert helps us see the foolishness in scientific attempts to replicate the inexplicable spiritual.

Although such divides at times discourage us, we also see them as opportunities for creativity. Refusing compromise, we seek out ways that perspectives complement each other. "You don't need the full basket," Albert reminds us. "Be patient; this is uncharted territory. We need experts in mainstream language, that's all." Albert's reassurance is part of an ongoing conversation about imagining a day when Mi'kmaq students like Pie'l become the experts, fluent in both Mi'kmaq and English, leaders in their home communities and postsecondary institutions. For now, it has to be enough that we learn together, accepting that any translation project involves a degree of what Albert calls *fabrication* (what might also be called *constructedness*) and then to "optimize on those fabrications."

# Taking It to The Classroom

Above we wonder aloud several questions about education. What if universities honored Indigenous knowledges and ways of learning? What if reconnecting with nature were essential to postsecondary education?

What if an integral part of that education meant coming together with Elders and professors in ceremony and in the classroom? What if spirituality and scholarship were inextricable? By respecting both Mi'kmaq and Western knowledges and ways of knowing, we offer our conversation and commentary as reflections on these questions. Perhaps as you have been reading, you have been relating such questions to your context, imagining how you might apply in the classroom what you are learning with us.

Although we are hopeful that universities will come to respect and accept meaningful involvement of Indigenous knowledges and peoples, we are grateful for the opportunities our research already provides. Dependence on non-Mi'kmaq partners, both Aboriginal and non-Aboriginal scholars, is a practical necessity for now. It is a little like bridge financing, accommodating a time of want in anticipation of one of plenty. And not. Unlike bridge financing, this kind of support will continue to be part of a future in which co-learning relationships thrive.

We mention that one effect of colonialism is damage to intergenerational connections and a devaluing of traditional knowledge for Mi'kmaq youth. Although not ideal in the long term, the opportunity to discuss spiritual language forms like the healing tense with non-Mi'kmaq educators in the university classroom helps to legitimize Mi'kmaq knowledge in the minds of those youth. To ensure that these exchanges are culturally appropriate and accurate, we note what transpires, share these accounts with the Elders, and then relate back to the youth the Elders' reactions and corrections, in effect temporarily bridging the intergenerational gap. Another way we balance these exchanges, whenever possible and desired, is to include Elders in the classroom (at their request or ours, either leading a class or participating in less formal ways) and non-Mi'kmaq educators in spiritual ceremonies or workshops outside the university.<sup>14</sup>

The transcript of our conversations details the absurdity of "teaching" a language form meant for the context of relationship. One way we meet this challenge is to use puppetry to create contextual analogies for the healing tense. Over the years, students in the integrative science program have retold Mi'kmaq legends with the help of puppets that they make from natural materials that they gather in the forests. In one case, the students told the Mi'kmaq legend "How Bullfrog Was Conquered," in which Bullfrog, by damming a stream, refuses to share water with the camps below his. Most of the narration was in English. After discussing the healing tense with researchers and Elders, the students added a healing-tense appendix to the story (told in English and Mi'kmaq). In the appendix, Bullfrog admits his mistake to Kluscap and accepts accountability for it, as one would in the course of real life. Rehearsal became a time for students to role-play the healing tense through their puppet characters. The students shared their learning by staging their puppet show in various public venues (classrooms, workshops, a conference), effectively enacting the relational living out of the healing tense. These puppet shows have sparked the memory of the healing tense among some audience members. At one performance, an Elder spoke in response to the performance, sharing her knowledge of the tense.

We enjoy many opportunities to take Two-Eyed Seeing to school, from the elementary level through to university.<sup>15</sup> We are working with educators to include puppetry as a way of teaching science. We are examining curricula used to train science teachers and health professionals for areas where Two-Eyed Seeing can be incorporated into themes and approaches. Our Toqlkutimk ("rowing together"), or Sunflower project, involved working with children in grades 5 and 6 from a nearby Mi'kmaq school, helping them understand the connection between the care needed to nurture sunflowers and their own healthy growth.

It gives us joy to reflect on the success of these and other projects. And it grieves us that the university has a way to go in becoming a welcoming place for Aboriginal students. And so we continue standing together. We offer our words and thoughts to you. Wela'lioq. Thank you.

#### Notes

<sup>1</sup>We agreed that Marilyn write the introduction and shape the dramatic exchange gleaned from the transcriptions of several years' worth of conversations among the four of us. Each of us reviewed draft versions and agreed that the introduction reconstruct a corporate voice representative of the shared theoretical and methodological position we have forged over the years. Elder Murdena Marshall and Elder Albert Marshall often ask that their voices be included free of conventional form in any written documentation of our shared research. In this instance, our offering of Two-Eyed Seeing as an interweaving of two equally legitimate ways of knowing acknowledges the authority of their spoken words by enclosing direct citations in quotation marks (e.g., "Albert explains ..." or "says Murdena ..."). In all other cases, *we* signals a consensus reached by all of us.

<sup>2</sup>We acknowledge and thank Shawn Wilson in particular for his (2008) elaboration of the Indigenist research paradigm. As Aikenhead and Ogawa (2007) have shown, the labels *Indigenous knowledge* and *science* can mask the diversity in each category. We accept that the binary structure of Two-Eyed Seeing may appear similarly reductive and simplistic. However, strategic engagement with this duality renders it, like any other, like day and night, say, useful for its very limits of comparability. A bright noon sun may tempt one to consider day the opposite of night. At dusk, the distinguishing limit of either is barely apparent.

Undeniably, European colonization of—and later American influence within—Canada established a Eurocentric, Western core. Although much decolonizing work has been done, there persists a tendency to maintain and/or perceive intact the colonial order. For example, with the 1971 Policy on Multiculturalism, Canada made official its support of "cultural diversity." By 1988 the country had legislated the *Multiculturalism Act*. Yet 20 years on, Canada's "national" newspaper *The Globe and Mail* still characterized the country's healthy 16.2% of "visible minorities" as "staggering" (April 3, 2008, p. A1). The high noon of multiculturalism. Especially distressing to those of us attempting to disentangle postsecondary education from the colonial grip, the 2001 Census showed that whereas approximately 10.6% of non-Aboriginal Canadians had attained at least a bachelor's degree, only 3.4% of Aboriginal Canadians had done so. However justified a postmodernist or poststructuralist critique, lived experience and critical analysis testify to

the foothold the us-them binary still enjoys in Canada, both intra- and interpersonally—and to its concomitant utility as an organizing principle. Moreover, as Chief Labrador's teaching suggests, scratch a binary and you'll find a tangle of roots. We complement the herein applied illustration of Two-Eyed Seeing research in our forthcoming expanded theoretical exploration, "Making metaphor across the divide(s)."

<sup>3</sup>From an interview with Chief Labrador's son, Todd (Kierans, 2003).

<sup>4</sup>From time to time, linguists address the preference for nominalizing root words by affixing the suffix *-ness* rather than *-ity*, for example, *pureness* and *humbleness* over *purity* or *humility*. Williams (1965) responded to the challenges of his day ("along has come another suffix to plague us—the ancient noun-forming suffix *-ness*," p. 279) by illustrating that the cyclical hue and cry about suffixes had been first raised as far back as the 16th century. The evolution of English usage makes moot most reasons for choosing one form over the other, even the proclivity for pairing Latinate roots with the Latinate *-ity* and Germanic or old English with the less common Old English *-ness*. One might agree with Plag (2010) that it comes down to geese and ganders: "what might be good for the parser (e.g., bad phonotactics) might be bad for the articulators or vice versa" (p. 28).

<sup>5</sup>We gesture toward these fields because their treatment of order or complexity in the universe overlaps provocatively with Mi'kmaq connectiveness not yet addressed by traditional Western science. Significant differences exist between each of these areas (including between complexity science and complexity theory or studies) that lie far outside the scope of the current essay.

<sup>6</sup>Not only do challenges to scientific orthodoxy meet resistance and varying degrees of misapprehension, they are often labeled as *pseudo-science*, especially, it seems, if the challenge is to insistent ontological frameworks like heart/brain dualism. In his reluctant attempt to define complexity science, Phelan (2001) acknowledges that the tendency for writers to misuse the tools and methods of that field has led to a proliferation of pseudo-science within it.

<sup>7</sup>*Aboriginal* is often used to include the disparate First Nations, Métis/Metis and Inuit peoples of Canada. With Niezen (2003), we use the broader term *Indigenous* to signal the global population of peoples who possess "a primordial identity, to people with primary attachments to land and culture, 'traditional' people with lasting connections to ways of life that have survived 'from time immemorial'" (p. 3).

<sup>8</sup>See, for example, the Humanities Research Council of Canada (SSHRC, 2003), Dialogue on research and Aboriginal peoples, the Canadian Institutes of Health Research (CIHR, 2007), Guidelines for health research involving Aboriginal people, UNESCO's (1999) *Science Agenda: Framework for Action and Position Paper on Science and Indigenous Knowledge* from the United Stated National Committee for the International Union of the History and Philosophy of Science (USNC/IUPHS, 2001).

<sup>9</sup>In his discussion of Steinhauer's (2001) stages of an Indigenous research paradigm, Wilson (2003) describes the fourth, ultimate, stage as "one which emanates from, honors and illuminates [Indigenous] perspectives." Our paradigmatic practice of "co-learning" calls for equal respect for sometimes oppositional perspectives. At these oppositional nodes, we modify research parameters or approach until we reach a harmonious consensus that maintains complementarity without compromising either perspective. If consensus is not possible, research does not proceed. See also Snively and Williams (2006) regarding complementarity of Western and Indigenous sciences.

<sup>10</sup>Alfred (2005) relates the revolutionary nature of transformative acts to a "strategic vision of non-violent contention" (p. 21). Although our purpose in engaging Two-Eyed Seeing is immediate, practical, and less grand, in theory Two-Eyed Seeing coheres with Alfred's call to revolution.

<sup>11</sup>Here we invoke Fels's (1998) "nothing in between" real and imaginary—or "not-yet-real"—worlds.

<sup>12</sup>Fels (1998) cites Taylor and Saarinen's (1994) description of "interstanding": "Understanding has become impossible. / because nothing stands under. / Interstanding has become / unavoidable because / everything stands / between" (p. 28). <sup>13</sup>See Iwama M., Marshall, M., Marshall, A., Mendez, I. and Bartlett, C. (2007) for one such

poetic retelling. <sup>14</sup>Elders also know the effects of having traditional knowledge devalued. Those who suffer the residual effects of residential schools may not be comfortable in a formal educational setting.

<sup>15</sup>See Institute for Integrative Science and Health Web site for details of these projects and others.

### Acknowledgments

All this is possible with the direction of the Elders, their guidance and generosity. We are grateful for support from the following agencies: Social Sciences and Humanities Research Council of Canada; Canada Research Chairs program; and Canadian Institutes of Health Research-Institutes of Aboriginal Peoples' Health. The students of Cape Breton University's Integrative Science Program offered creative and enthusiastic assistance.

## References

- Aikenhead, G., & Ogawa, M. (2007). Indigenous knowledge and science revisited. Cultural Studies of Science Education, 2(4), 539-620.
- Alfred, T. (2005). Wasase: Indigenous pathways of action and freedom. Peterborough, ON: Broadview.
- The American heritage(r) book of English usage: A practical and authoritative guide to contemporary English. Boston, MA: Houghton Mifflin.
- Baake, K (2003). Metaphor and knowledge: The challenges of writing science. New York: SUNY Press.
- Bartlett, C., Marshall, M., Marshall, A., & Iwama, M. (in press). Integrative science and two-eyed seeing: Enriching the discussion framework for healthy communities. In L. Hallstrom (Ed.), Ecologically emancipated communities. Vancouver, BC: UBC Press.
- Berkes, F. (1999). Sacred ecology: Traditional ecological knowledge and resource managements. Philadelphia, PA: Taylor & Francis.
- Campbell, M. (1995). Stories of the road allowance people. Penticton, BC: Theytus Books.
- Cariou, W. (2002). Lake of the prairies: A story of belonging. Toronto, ON: Doubleday.
- CIHR: Guidelines for health research involving Aboriginal people. (2007). Retrieved June 20, 2007, from: http://www.irsc.gc.ca/e/29134.html
- Cole, P. (2006). Coyote and raven go canoeing: Coming home to the village. Montreal, QC: McGill-Queens University Press.
- Dale, A. et al. (2002). Spirituality and sustainability: Who cares? e-Dialogues for sustainable development. Retrieved March 20, 2008, from: http://72.14.205.104/search?q=cache:qvGBoTjju48J:www.crcresearch.org/files
  - crcresearch/File/Spirituality\_and\_SustDev\_Jun\_2002.pdf+connectiveness,+spirituality& hl=en&ct=clnk&cd=24
- Dictionary of prefixes, suffixes and combining forms. (2002). Webster's third new international dictionary unabridged. Retrieved March 30, 2008, from: http://www.scribd.com/doc/240281/MerriamWebsters-A-Dictionary-of-Prefixes-Suffixes-and-Combining-Forms.
- Ermine, W., Sinclair, R., & Jeffrey, B. (2004). The ethics of research involving Indigenous peoples: Report of the Indigenous peoples' health research centre to the inter agency panel on research ethics. Retrieved July 4, 2007, from:

http://www.Iphrc.ca/text/Ethics%20Review%20IPHRC.pdf

- Fels, L. (1998). In the wind clothes dance on a line: Performative inquiry—A (re)search methodology. Journal of Curriculum Theorizing, 14(1), 27-36.
- Gough, W.C., & Hacklett, R.L. (1993). The science of connectiveness. Retrieved March 18, 2008 from: http://www.fmbr.org/papers/sc1.php
- Government of Canada. (1988). Canadian multiculturalism act. Acts of the parliament of Canada, I. Ottawa: Queen's Printer.

Institute for Integrative Science and Health Web site: http://www.integrativescience.ca/ Intellergy numi-verse model. (n.d.). Retrieved March 19, 2008, from:

http://www.intellergy.org/NUMiverse.htm

- Iwama, M., Marshall, M., Marshall, A., Mendez, I., & Bartlett, C. (2007). I got it from an Elder: Conversations in healing language. Kentville: Gaspereau Press.
- Jankowiak, W.R. (1993). Sex, death and hierarchy in a Chinese city: An anthropological account. New York: Columbia University Press.
- Kierans, K. (2003). Mi'kmaq craftsman preserves "old ways." Halifax Sunday Herald, p. C4.

King, T. (1997). Godzilla vs. Post-colonial. In A. Heble, D. Palmateer Penee, & J. Struthers (Eds.), New contexts of Canadian criticism (pp. 241-248). Essex: Broadview.

- MacLeod, N. (2001). Coming home through stories. In A. Ruffo (Ed.), (Ad)dressing our words: Aboriginal perspectives on Aboriginal literature (pp. 17-36). Penticton, BC: Theytus Books.
- Maturana, H., & Varela, F. (1987). The tree of knowledge: The biological roots of human understanding. Boston, MA: Shambala.
- McNaughton, C., & Rock, D. (2003). Opportunities in Aboriginal research: Results of SSHRC's dialogue on research and Aboriginal peoples. Retrieved April 26, 2006, from:
- http://www.sshrc.ca/web/apply/background/aboriginal\_backgrounder\_e.pdf Niezen, R. (2003). The origins of Indigenism: Human rights and the politics of identity. Berkeley,

CA: Uuniversity of California Press.

- Phelan, S. (2001). What is complexity science, really? *Emergence*, *3*, 120-136. Retrieved February 12, 2008, from: http://emergence.org/ECO\_site/web-content/table.html
- Plag, I. (2001). The role of selectional restrictions, phonotactics and parsing in constraining suffix ordering in English. Yearbook of Morphology, 1-36.
- Snively, G., & Williams, L. (2006). The Aboriginal knowledge and science education research project. *Canadian Journal of Native Education*, 29, 229-244.
- Statistics Canada. (2006). 2001 census. Ottawa: Author. Retrieved April 4, 2008, from: http://www12.statcan.ca/english/census01
- Steinhauer, P. (2001). *Kihkapiiv: Sitting within the sacred circle of the Cree way*. Unpublished manuscript, University of Alberta.
- UNESCO. Science agenda-framework for action. (1999). Retrieved July 4, 2007, from: http://www.unesco.org/science/wcs/eng/intro\_framework.htm#34
- USNC/IUHPS. (2001). Position paper on science and Indigenous knowledge. (2001). Retrieved July 4, 2007, from: http://www7.nationalacademies.org/usnc-iuhps/ Indigenous\_Knowledge.html
- Waldram, J. (1997). *The way of the pipe: Aboriginal spirituality and symbolic healing in Canadian prisons*. Peterborough, ON: Broadview Press.
- Watts, D. (2004). The new science of networks. Annual Review of Sociology 30, 243-270.

Williams, T. (1965). On the -ness peril. American Speech, 40, 279-286.

- Wilson, S. (2003). Progressing toward an Indigenous research paradigm in Canada and Australia. *Canadian Journal of Native Education*, 27, 161-178.
- Wilson, S. (2008). Research is ceremony: Indigenous research methods. Halifax, NS: Fernwood.