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Editorial

Open Issue 2020: 23(3)

This open issue of the *Canadian Journal of Environmental Education* (CJEE) brings together a strong collection of papers that engage with a range of salient issues in our field.

In "'It Will Startle You': Thoughts on a Pedagogical Conspiracy of Birds," **David Jardine** reflects on the connections he perceives between birds, pedagogy, and the scholarship of Hans-Georg Gadamer, among several other theorists. He provides insights into and observations of his own relevant experiences.

Through interviews with literacy educators, **Carine Villemagne**, **Justine Daniel**, and **Lucie Sauvé** explore the relationships between, and potential integra-tion of, adult literacy and environmental education in their paper, "L'intégration de l'éducation à l'environnement en alphabétisation des adultes: Points de vue de groupes d'éducation populaire au Québec."

In "Can We Teach the Earth Charter Anymore? A Critical Examination of the Earth Charter's Role in Education," **Nick Stanger, Nick Engelfried, Sarah Clement, Ash Kunz, Rachael Grasso,** and **Smokey Brine** ponder the contemporary relevance of the Earth Charter to environmental education through an intersectional critical discourse analysis informed by scholarship on indigeneity and gender, among other socio-critical approaches to research. They conclude with suggestions for an updated charter grounded in environmental justice and culturally relevant pedagogy.

Yi Chien Jade Ho draws upon critical feminist and place-based scholarship to narrate and explore her lived experiences in a variety of socio-cultural and geographical contexts in "Making Sense of Place: Place Anchors and Educational Potentials." Ho discusses the intriguing notion of place anchors as a promising concept for reflexively exploring relationships with our cultural and environmental surroundings that might be considered by other educators and scholars.

Cassandra Witteman engages with the work of Rūmī and other poets, philosophers, and theorists in their piece, "Body as Prism: Somatic Pedagogy in the Development of Embodied Ecological Awareness." Witteman explores how grounding educational practices within the body, which is both situated in and disconnected from the natural world, can make our subjective processes of discovery more meaningful and personal.

In "Digging at the Root of the Tree: Conceptualizing Relational Ecological Identity," **tim martin** also engages in a consideration of physicality in environmental education. He shares findings from a study of the experiences of staff and participants of Operation Wild, a program for people with disabilities in Hamilton, Ontario. Through a critical consideration of place, (dis)ability

scholarship, and Western and Indigenous ways of knowing, martin proposes a relational ecological identity theory that both critiques and extends Thomashow's foundational work.

Michal J. Bardecki and **Linda H. McCarthy** also present considerations for environmental education in Ontario in their paper, "Implementation of the Bondar Report: A Reflection on the State of Environmental Education in Ontario." They provide a methodical reflection on environmental education policy, practice, and teacher education since the 2007 release of the Bondar report, titled *Shaping Our Schools, Shaping our Future*. They also offer a range of associated recommendations for K–12, post-secondary, and government contexts.

In their paper, "A Collective Case Study into the Use of Social Media as a Tool for Developing Sustainable Living Habits in Urban Families," **Michel T. Léger** and **Shawn Martin** compare the impacts of email and social media engagement on families' environmental habits in Moncton, New Brunswick and Montreal, Quebec. This study provides intriguing insights into environmental education research and practice as they relate to familial dynamics, technology, and regional influences on environmental awareness.

Laurence Brière considers social movement learning in the context of an urban transportation consultation process in her paper, "Eco-Activism Contributions to Social Learning: Drawing from the Turcot Public Debate." Brière situates this interesting case study more broadly in the sphere of environmentally related civic education and provides a consideration of future research and practice.

Finally, **Mindi Lee Meadows** introduces and positions her cover artwork, "Plastic Ocean," using a critical socio-cultural, political, and environmental lens. Meadows notes that "Plastic Ocean" gestures toward the myriad threats faced by polar bears as representative icons of lived experiences in the Canadian Arctic.

Greg Lowan-Trudeau, Pat Maher, & Blair Niblett

"It Will Startle You": Thoughts on a Pedagogical Conspiracy of Birds

David Jardine, University of Calgary, Canada

> Seeing the frailty of your life through seeing the breath is the meditation on the recollection of death. Just realizing this fact—that if the breath goes in but does not go out again, or goes out but does not come in again, your life is over—is enough to change the mind. It will startle you into being aware. (Chah, 2001, p. 44)

I

I mentioned during a gathering of teachers seeing a Downey Woodpecker having at the stump in our backyard a few days earlier, how, over and over again, I could not quite resolve the bright yellow patch on the back of its head. I did my best to imagine that it might be an immature boy, and all this work was bent on maintaining myself in its presence and asking, repeatedly, that it yield itself up to my presumptions. Downey Woodpeckers are the only thing anything like this I've seen in these parts for the past 30 years.

Funny black and white back design, though.

Then that sudden, oh-so-familiar gulp of air. No, this won't do: "**Northern Three-Toed Woodpecker**: . . . *yellow* caps . . . 'ladder' back. The female lacks the yellow cap" (Peterson, 1980, p. 192).

Such experiences are, of course, commonplace, and they involve a strange, experiential reciprocity. As it finally became what it is—freed from my presuming—I became myself all over again, freed from that very same presuming. Humiliation tinged with joy and uplift, just enough to feel fresh air, some buoyance under the wings. Exuberance ("be abundant, grow luxuriously" [OED]). "Without gut level experience of the other, without sharing his aura, you can't be saved from yourself" (Illich, 1998, p. 6).

These aren't exactly meant to be "metaphors." They are meant, failingly, to describe something bodily palpable about the arrival of this sort of arresting experience. Body-bounded intimacies:

- "the possibility . . . to see everything with fresh eyes, so that what is long familiar fuses with the new into a many levelled unity" (Gadamer, 1989, p. 16).
- "the readiness of the person who is receiving and assimilating [*des Aufnehmenden*] the text [or the bird sighted] to be 'all ears' [*ganz Ohr zu sein*], [without which] no . . . text will speak." (Gadamer, 2007, p. 189)

Eyes. Ears. And both of these framed at the moment in which presumptions "break open" (Gadamer, 1989, p. 360), "break forth" (p. 458) and "reciprocity"

(Gadamer, 1984, p. 323) is won by losing myself in order to save myself from myself.

This possibility, this readiness, are things I am still learning about. Here is the ecopedagogical point—this learning is done *in an intimate concert* with these birds and their kin who ask this of me and who, in responding, have shaped my own readiness for that concert:

> How could we *be* were it not for this planet that provided our very shape? Two conditions—gravity and a liveable temperature range—have given us fluids and flesh. The trees we climb and the ground we walk on have given us five fingers and toes. The "place" (from the root *plat*, broad, spreading, flat) gave us far-seeing eyes, the streams and breezes gave us versatile tongues and whorly ears. (Snyder, 2003, p. 29)

Thus the lovely paradox of learning that demonstrates that all learning is ecopedagogical: I cannot heed those feeder arrivals if I am not all ears and fresh eyes, ready for what arrives "beyond my wanting and doing" (Gadamer, 1989, p. xxviii). And it is precisely as a result of my repeated, often-failing attention to them that such ears become properly curved and shapely and useful.

"All ears" is somehow both cause and effect. It is a practice that is both my own and the locale of being saved from myself.

This is a phenomenological fact that as those ears shape, the sounds of the world shape in near-perfect parallel.

Conspiracy.

II

> It would not deserve the interest we take in it if it did not have something to teach us that we could not know by ourselves (Gadamer, 1989, p. xxxv).

First ever noticed arrival of a Steller's Jay over 30 plus years of looking. March 23, 2017, late afternoon. We've long-since had Blue Jays, and more recently Grey Jays have ventured into the woods and under the front pitch of our roof for feed. I've seen these Steller's Jays once before up in the foothills to the west.

It is important to note what happens to attention when its object becomes too familiar for words because such familiarity is precisely *not* noteworthy, but is still full of pedagogical consequence. There is a numbing comfort in Blue Jays, but familiarity—being a ubiquitous and quickly recognized "part of the family"—can be a type of dulling *an-aesthesis*.

After that Steller's Jay's departure, a good old Blue Jay lit on the same feeder and sent a shiver of strange and thrilling recognition through long familiarity, long-settled memory.

That (with a gasp) is a Blue Jay. I could finally see its smallness, its variegations, the beauty of its Alberta sky-blue, unlike the swarthy dark indigos and

glinting metallic-ness of the Steller's Jay. This is a type of knowledge that has an important place:

> We do not understand what recognition is in its profoundest nature if we only regard it as knowing something again that we already know. The joy of recognition is rather the joy of knowing *more* than is already familiar. In recognition, what we know emerges, as if illuminated. (Gadamer, 1989, p. 114).

Because of that Steller's Jay's arrival, that Blue Jay is now newly experienced as *among* Steller's Jays nearby. *Everything has changed*, for now, even the once-familiar, ignorable squawk ("a harsh slurring *jeeah* or *jay*; a musical *queedle, queedle*; also many other notes" [Peterson, 1980, p. 208]) is a sound now, fresh ears, among a heretofore-unsuspected surround. For the Steller's Jay: "most common a very harsh, unmusical, descending *shaaaaaar*; also a rapid, popping *shek shek shek*. Also a clear, whistled *whidoo* and quiet, melodious thrasher-like song" (Sibley, 2016, p. 295). Maybe those previously ignorable sounds are *not* all Blue Jays after all. Once familiar sound-surroundings lift up off the ground in suspense, asking for readiness, freshness.

And when a Blue Jay pitches itself in the lower spruce branches, now, fleetingly, it squawks "as if illuminated."

And a detailed differentiation between two types of Steller's Jays in *Sibley's Birds West* forced me to wait until another one appeared. I didn't notice this differentiation before because I didn't know till now that noticing *that* was notable. So, a sort of anticipation that comes with coming to know. Those moments of waiting for him to return in full knowledge that he may have been passing through in the arc of spring's arrival, never to be seen again. By the way, do they "pass through?" Just checked: They do migrate, but it tends to be up- and downslope, not north–south. Like bears soon to visit the compost heap.

Yes. There, on the feeder. And yes, too, an open-bottom V of white above the beak, and white eyebrows. An Interior West Steller's Jay (Sibley, 2016, p. 295).

Whidoo!

III

> "Texts are instructions for [the] practice" (Tsong-kha-pa, 2000, p. 52) of precisely paying more intimate and proper attention to the resounding. Don't worry. Study, properly practiced, will not ruin the *aesthesis* of ecological reveries, only their limited and limiting naiveties. (Jardine, 2015, p. xxii)

In our teachers' gathering, it was suggested that the term used for the work of kindergarten classes that are variously called "outdoor schools" or "forest schools" might be "co-conspiracy" with the vivid curiosities of children. And, of course, that co-conspiracy goes beyond them and us and out towards those

Steller's Jays as well, then looping back to reappearing Blue Jays and from there over to Peterson and Sibley and other elders and maps and specificities and back again, there, stop, see?

Co-conspirators. Young children are often mytho-poetically figured as heralds of the new, of new life, and the great Romantic hope that they can be reliable sources of fresh eyes and wide ears, saving us elders from ourselves, saving the world from its mortality through the sheer "fact of natality" (Arendt, 1969, p. 196). But then, Sibley and the ancient noticings that he has gathered and detailed, saved me from myself as well. Read properly, study can herald. It, too, can be conspiratorial. Just as was that Jay's reappearance. The conspiracy is broad and rich and unbounded. One breath away.

Co-conspirators. This word sent me back to a nearly impenetrable paper I read years ago by Ivan Illich (1998) titled "The Cultivation of Conspiracy." As a former asthmatic, this image of "*conspiratio*, a commingling of breaths" (p. 8), well, took my breath away when it was mentioned. That first gasp when that once-presumed-Downey Woodpecker yielded to an encroachment of suddenly shared breath whose reciprocity goes far beyond ears and eyes. It is almost unbearably intimate. "Fresh eyes," "all ears." But also, *conspiratio*. My breath halts as it halts on the feeder:

> You draw in your breath and stop still. The quick intake of breath, this little gasp—*hshshs* as the Japanese draw between their teeth when they see something beautiful in a garden—this *ahhhh* reaction is the aesthetic response just as certain, inevitable, objective and ubiquitous, as a wincing in pain and moaning in pleasure. Moreover this quick intake of breath is also the very root of the work aesthetics, *aisthesis* in Greek, meaning sense-perception. *Aisthesis* goes back to the Homeric *aiou* and *aisthou* which means both "I perceive" as well as "I gasp, struggle for breath," as in *aisthomai*, I breathe in. (Hillman, 2006a, p. 183)
>
> *Aesthesis* . . . means at root a breathing in . . . of the world, the gasp, 'aha,' the 'uh' of the breath in wonder . . . and aesthetic response. (Hillman, 2006b, p. 36).

IV

> [Some startling event] captivates us just as the beautiful captivates us. It has asserted itself and captivated us before we can come to ourselves and be in a position to test the claim . . . that it makes. In understanding we are drawn into an event of truth [Greek: *aletheia*, meaning variously opening what seemed closed, remembering what seemed forgotten, enlivening what seemed dead ordinary and familiar] and arrive, as it were, too late. (Gadamer, 1989, p. 490).

Aesthetic response as a conspiratorial response. Here's a whispery secret. I *adore* these: *jeeah*, *jay*, *queedle, queedle*, *shaaaaaar*, *shek shek shek*, *whidoo.* I've often joked about how these make me want to teach phonics to young children. They also make me wonder about what an interesting job it is to be assigned to write these. Whorly ears.

I'm slowly realizing that, having lived with these Blue Jays my whole life, right back to when, as a child in Southern Ontario, I often mistook their squawks for squeaking clothesline wheels, I'm just now learning all over again about this parade of images and sounds and lives, theirs and mine, too. About a life-long conspiracy that went on despite my attentions or distractions.

The purpose of bird watching is not about getting a longer and longer list of things that I can now ignore. Its purpose is to make almost unbearable the folding layers of sweet and inevitably fatal conspiracy that we live and breathe, such that the next pair of migrating Canada Geese overhead becomes miraculous.

The pedagogical co-conspiracies of teachers, students, old, young, sound, voice, text, memory, will startle you, over and over again, into being aware.

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L'intégration de l'éducation à l'environnement en alphabétisation des adultes : Points de vue de groupes d'éducation populaire au Québec

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Résumé

L'éducation relative à l'environnement (ERE) est une dimension essentielle de l'éducation. Assez bien développée pour les jeunes, elle l'est beaucoup moins chez les adultes, en particulier dans un contexte d'éducation non formelle. Dans le cadre de projets en développement avec des groupes d'éducation populaire au Québec, nous avons mené une étude visant à relever les possibilités d'intégration de l'ERE aux pratiques d'alphabétisation des adultes. Ainsi, au moyen d'une enquête, nous avons mis en évidence les conceptions et les préoccupations relatives à l'environnement des répondants mandatés par les groupes d'éducation populaire, ainsi que certaines dimensions de leurs pratiques éducatives et environnementales. Les conditions d'intégration de l'ERE à l'alphabétisation des adultes ont également été mises en évidence.

Abstract

Environmental education (EE) is an essential dimension of education. Although environmental education is fairly well-developed for young people, it is underdeveloped for adults, especially in non-formal educational contexts. In this study, we investigated possibilities for integrating EE in adult literacy practices with adult literacy community groups in Quebec. We began by exploring the environmental concerns, understanding, and practices of adult educators in these groups. We subsequently considered conditions for integrating EE into adult literacy education.

Mots-clés : éducation relative à l'environnement des adultes; alphabétisation des adultes; éducation non formelle; éducation populaire; enquête téléphonique; recherche qualitative

Key words: environmental adult education; adult literacy; non-formal education; popular education; phone inquiry; qualitative research

L'intégration de l'éducation à l'environnement en alphabétisation des adultes : Points de vue de groupes d'éducation populaire au Québec

De la problématique au cadre théorique

Nos sociétés traversent une crise écologique majeure qui ne cesse de s'aggraver et de se globaliser depuis sa mise en évidence dans les années 70 (Kempf, 2017). Plusieurs auteurs (Acosta, 2010; Clover, de O. Jayme, Hall et Follen, 2013; Lange, 2010; Leff, 2006) mettent en évidence le caractère multidimensionnel de cette crise. Celle-ci n'est pas seulement environnementale, elle est également sociale, politique, structurelle et idéologique, étant solidement ancrée dans nos modes de pensée et de développement, en particulier dans notre façon de concevoir et de vivre la relation entre l'humain et la nature, qui dans une épistémologie « eurocentriste » tend à dissocier nature et culture (Sundberg, 2014).

Dans ce contexte, les problèmes environnementaux ne touchent pas tout le monde de la même manière. Les populations les plus démunies, dans les pays du Nord comme du Sud, sont celles dont les milieux de vie sont le plus souvent dégradés et pollués. La montée des inégalités socio-environnementales est donc bien réelle, et les communautés concernées cumulent le plus souvent un ensemble d'injustices économiques, sociales, culturelles, éducatives et écologiques (Hillman, 2002; Larrère, 2017; Naoufal, 2016).

Une telle crise légitimise donc l'importance de développer l'éducation relative à l'environnement (ERE) des adultes puisqu'elle les touche en tant que citoyens, consommateurs et décideurs d'aujourd'hui (Clover, 1999; Clover, Follen et Hall, 2000; Walter, 2009). Les adultes se retrouvent au front du changement majeur qui s'impose et qui fait appel, d'une part, à des solutions créatives pour contrer la dégradation de leurs conditions de vie et d'existence et d'autre part, à l'équilibre de la matrice de vie de l'ensemble du vivant. L'ERE des adultes faisant l'objet de diverses conceptions en fonction de la diversité des paradigmes éducationnels (Walter, 2009) et des discours environnementaux (Lange, 2010) sous-jacents, nous soulignons dès à présent que nous adoptons une perspective radicale et critique de l'ERE des adultes. Clover *et al.* (2013) ainsi que Walter (2009) suggèrent que cette perspective est celle qui répondrait le mieux à la nécessité d'une transformation des visions du monde et des modes d'agir des personnes et des groupes sociaux qui fondent la crise socioécologique actuelle. En effet, au-delà des symptômes de cette crise, ce sont ses fondements qui sont pointés du doigt : le système économique mondial maintient l'écologie et les populations sous son pouvoir (Clover et Hall, 2010; Kempf, 2017, 2009) en demeurant axé sur le consumérisme, l'extractivisme et le pétrole (Acosta, 2010; Clover, de O. Jayme, Hall et Follen, 2013; Walter, 2009). L'ERE, dans une perspective radicale, propose alors de déconstruire les présupposés qui sont à la base des choix de développement ancrés dans une économie néolibérale qui ne peut pas être envisagée comme la seule et unique voie possible, et offre

par ailleurs un cadre réflexif pertinent pour le développement d'un processus et de ses conditions, en visant la responsabilisation individuelle et collective des personnes dans leur milieu de vie et au sein de leur communauté. Comme Miller (2018) le suggère, il ne s'agit pas d'envisager la communauté dans sa vision « sectaire » ou hégémonique, mais de reconnaitre sa diversité intrinsèque et les inégalités dont elle peut être elle-même porteuse. La théorie critique selon les races (Critical Race Theory) appelle d'ailleurs à la vigilance en ce sens (Miller, 2018, p. 846).

Pourtant, malgré l'urgence et la nécessité du déploiement de l'ERE des adultes, cette population d'apprenants est souvent négligée en éducation relative à l'environnement par rapport au jeune public (Villemagne, Daniel, Sauvé et Joyal, 2017). Si quelques cours en lien avec l'ERE – encore trop rares – sont proposés en contexte formel pour les adultes, comme c'est le cas au Québec dans le secteur secondaire et à l'université, le contexte non formel est davantage dépourvu de cette formation, étant donné le manque d'institutionnalisation de cette dimension pourtant fondamentale de l'éducation au Québec (Lafitte et Sauvé, 2017). Ainsi, les initiatives structurées d'éducation relative à l'environnement échappent aux adultes qui n'étudient pas en contexte formel. Certes, les institutions muséales orientées sur le patrimoine naturel, les parcs provinciaux et nationaux jouent un rôle important, mais l'ERE qu'elles proposent n'est pas axée sur la participation et l'engagement des adultes dans l'action. Clover et Harris (2005) ainsi que Finger (1989) considèrent par ailleurs qu'il ne suffit pas d'informer et de sensibiliser les adultes sur les questions environnementales et de développer leur savoir pour qu'ils veuillent nécessairement prendre part aux débats et s'engager dans des changements réfléchis et concrets.

Comme nous l'avons constaté il y a plusieurs années (Villemagne, 2008), l'ERE des adultes en contexte non formel est certainement la plus difficile à cerner en raison de la diversité des acteurs et des pratiques. Étant portée par des établissements dont l'activité principale n'est pas toujours l'enseignement-apprentissage, elle est alors teintée des intérêts spécifiques de chaque organisation (Sauvé, 1997). C'est le cas des groupes d'éducation populaire du Québec participant à notre recherche, dont l'un des mandats est l'alphabétisation des adultes faiblement scolarisés, nés au Québec ou à l'étranger, comme moyen d'amélioration de leurs conditions de vie, mais également comme stratégies de lutte contre l'exclusion de la société et de développement de leurs compétences citoyennes. Ces groupes constituent aussi des cadres où les adultes peuvent s'épanouir (Bélanger, Bélanger et Labrie-Klis, 2014). Comme Bélanger, Bélanger et Labrie-Klis (2014) le soulignent, les centres d'éducation populaire favorisent une réelle prise en charge des enjeux sociaux, éducatifs, culturels et économiques de la communauté locale. La diversité des activités d'éducation populaire qui y est déployée en est le reflet. Le Conseil supérieur de l'éducation (CSE, 2016) constatait récemment que l'éducation populaire exerçait aujourd'hui trois grandes fonctions au sein de la société éducative québécoise : elle répond aux besoins de formation des personnes que le système formel ne peut pas prendre en charge; elle exerce un rôle complémentaire

à celui de ce dernier, et enfin, elle offre un contexte d'expression des propositions éducatives alternatives. En particulier, l'éducation populaire « a souvent lieu dans l'action, dans un projet concret, dans des approches inductives où l'histoire de vie est source de connaissance et à la base de la compréhension et de l'apprentissage » (CSE, 2016, p. 23).

Dès 2008, deux groupes d'éducation populaire de la région de l'Estrie ont souhaité collaborer avec notre équipe de recherche afin de développer des pratiques d'ERE pour les adultes qui fréquentent leurs organismes. Or nous avons constaté que ces groupes faisaient partie d'un vaste ensemble d'organisations québécoises (nous en avons recensé 145 en 2009) ayant une mission d'alphabétisation populaire axée sur les personnes de leur communauté, en ce sens qu'ils organisent le plus souvent des ateliers pour développer les compétences de base des adultes, à savoir, lire, écrire, compter et utiliser les technologies de l'information et de la communication. Comme le soulignent Bouffard et Nombré (1997), les adultes qui fréquentent les groupes d'éducation populaire ont « de la difficulté à remplir des formulaires de demande d'emploi, à aider leurs enfants à faire leurs devoirs, à lire la posologie d'un médicament, à écrire à leurs amis ainsi qu'à voter ». Aussi, selon Arpin-Simonetti (2013, p 12), « les contraintes liées à la pauvreté dans laquelle vivent la majorité des personnes analphabètes et la honte d'avouer leur condition entre autres (…) les confinent à la marginalité ». Cette situation de faible alphabétisme les isole et les exclut ainsi de nombreuses formes de participation sociale, dont celle reliée à des questions environnementales réelles qui peuvent les toucher dans leur milieu de vie.

Constatant qu'aucune étude n'avait été réalisée à ce jour afin de mettre en évidence les réelles possibilités d'intégration interdisciplinaire de l'ERE et de l'alphabétisation des adultes au sein des groupes d'éducation populaire québécois, nous avons voulu mieux connaitre leur réalité et leurs préoccupations environnementales, ainsi que celles des adultes qui fréquentent ces groupes, en particulier leurs expériences, leurs conceptions, leurs points de vue, leurs intérêts et leurs besoins en matière d'environnement et d'ERE.

Objectifs de recherche

Dans ce contexte, trois objectifs de recherche complémentaires ont été formulés :

1. Mettre en évidence les conceptions, les points de vue, les expériences et les conditions d'intégration de pratiques environnementales et d'initiatives d'éducation relative à l'environnement dans les groupes d'éducation populaire du Québec.
2. Mettre en évidence les points de vue, les intérêts, les conceptions et les besoins en matière d'environnement et d'ERE d'adultes en apprentissage au sein de groupes d'éducation populaire du Québec.

3 Mettre en lumière les possibilités et les conditions d'intégration de l'ERE aux pratiques d'alphabétisation des adultes.

Compte tenu de la densité des données recueillies, cet article rend compte des résultats d'analyse relatifs à notre premier objectif tout en apportant des pistes de réponse au troisième objectif. Un autre article publié dans la revue électronique *Vertigo* fait quant à lui état des résultats qui concernent notre deuxième objectif (Villemagne, Daniel, Sauvé et Joyal, 2017).

Ainsi, après avoir décrit la méthodologie de recherche que nous avons mise en œuvre, notre article rapporte les principaux résultats de notre premier objectif. Nous présentons un bref portrait sociodémographique des groupes d'éducation populaire québécois ayant participé à l'étude, puis exposons leurs conceptions, préoccupations et actions en matière d'environnement. Après avoir caractérisé leur vision de l'ERE, nous rapportons les conditions dans lesquelles les groupes d'éducation populaire interviewés jugent qu'il serait possible d'intégrer l'ERE dans leur organisation. Une discussion de nos résultats suivra et nous permettra de conclure sur les possibilités éducatives et de recherche dans le contexte des groupes d'éducation populaire du Québec.

Méthodologie de la recherche

Pour atteindre notre premier objectif, nous avons mené une recherche interprétative auprès des groupes d'éducation populaire du Québec sous la forme d'une enquête téléphonique. Comme Savoie-Zacj (2007, p. 99) l'indique, la nature interprétative de notre étude signifie que nous nous sommes attachés au sens que les répondants attribuent aux phénomènes « interprétables » au sujet desquels ils ont été interrogés. Il s'est agi d'en tirer une meilleure compréhension (Gohier, 2004). La recherche de type interprétatif vise en effet la mise au jour des significations portées par les acteurs en jeu (Sauvé, 2005).

Modalités de recrutement des groupes d'éducation populaire

En 2009, nous avions recensé 145 groupes d'éducation populaire du Québec avec l'aide d'organismes dont ces groupes étaient membres, soit le Centre de documentation pour l'éducation des adultes et l'action féminine ainsi que le Regroupement des groupes populaires en alphabétisation du Québec. Nous les avons tous contactés par téléphone et par courrier postal et avons obtenu un taux de participation de 33,3 %, soit 48 groupes d'éducation populaire qui ont collaboré à l'enquête téléphonique. Par le biais de cette enquête, nous avons voulu mieux connaitre leur réalité et leurs préoccupations environnementales, ainsi que celles des adultes qui les fréquentent, en particulier leurs expériences, leurs conceptions, leurs points de vue, leurs intérêts et leurs besoins en matière d'environnement et d'ERE.

Outil de collecte de données et modalité des entrevues

Le questionnaire de l'enquête téléphonique était constitué de questions ouvertes, semi-ouvertes et fermées. Il y avait également des questions de natures sociodémographiques et organisationnelles au sujet des groupes interviewés. Une entrevue enregistrée d'environ une heure avec chaque représentant des groupes volontaires a alors été réalisée. En plus de certaines caractéristiques décrivant les groupes, les adultes qu'ils desservent et leur mission rapportées par les groupes eux-mêmes, leurs conceptions et préoccupations environnementales ont été discutées. Leurs conceptions, leurs expériences, leurs intérêts et leurs besoins en matière d'environnement et d'ERE ont aussi fait partie des dimensions abordées.

Stratégies d'analyse des données

Les 48 entrevues ont été transcrites verbatim. Quelques réponses ont fait l'objet d'une analyse statistique simple alors que les autres (la majorité) ont été analysées au moyen du logiciel NVivo 8 en vue de dégager les thèmes présents dans notre corpus (Paillé et Mucchielli, 2005) et de les analyser selon une épistémologie interprétative. L'architecture de thématisation a en partie découlé des thèmes abordés dans l'outil de collecte de données, mais sans s'y limiter. Des thèmes émergents ont aussi été mis en évidence selon une logique d'analyse plus inductive. En moyenne, chaque entrevue a été codifiée par deux membres de l'équipe de recherche, ce qui constitue une forme de triangulation des données analysées afin d'assurer la rigueur du processus d'analyse ainsi que la fiabilité des résultats présentés (Gohier, 2004).

Résultats de l'étude

Avant de présenter nos résultats, il semble nécessaire d'indiquer que chaque extrait d'entrevue utilisé pour illustrer ceux-ci possède un code numérique qui correspond au numéro du groupe d'éducation populaire concerné, soit entre G001 et G145, G signifiant « groupe ».

Bref portrait des groupes d'éducation populaire

Nous présentons d'abord les principales caractéristiques des répondants et exposons ensuite les particularités des adultes qui fréquentent les groupes d'éducation populaire. La mission éducative et sociale de ces groupes est enfin rapportée.

Les personnes mandatées par les groupes d'éducation populaire pour participer à l'étude sont des femmes dans une large proportion (85,4 %). Parmi les 48 personnes sondées, 37,5 % ont des postes de direction d'organisme,

35,4 % sont formatrices ou animatrices et 22,9 % assument à la fois des tâches de direction et de formation/animation. Enfin, 4,2 % de ces personnes font du bénévolat dans leur groupe. Leur ancienneté au sein de leur organisation est très variable. Ainsi, 52,1 % y travaillent depuis moins de 5 ans alors que 16,7 % y sont employées depuis plus de 16 ans. Entre ces deux tendances opposées, 29,2 % ont une ancienneté se situant entre 6 et 15 ans (notons qu'une personne n'a pas fourni cette information). La situation dépeinte trouve écho dans le récent bilan fait par Bélanger *et al.* (2014) selon lequel il y a une très grande polyvalence des acteurs dans les groupes d'éducation populaire.

La moyenne de fréquentation des groupes d'éducation populaire est de 47 personnes par an dans chaque groupe. La majorité, 81,5 %, est née au Québec, le reste est né à l'étranger et a immigré dans la province. La moyenne d'âge des adultes est de 42 ans mais cache des extrêmes. En effet, certains groupes accueillent majoritairement de très jeunes adultes de 16-18 ans qui, ayant eu un parcours scolaire très difficile, cherchent à améliorer leurs compétences en vue de reprendre leurs études ou de se trouver un emploi; alors que d'autres groupes accueillent un grand nombre d'adultes de plus de 60 ans qui cherchent à briser leur isolement et à s'améliorer en lecture et en écriture. Le niveau d'alphabétisme des adultes fréquentant les groupes est très faible (niveaux 1 ou 2 le plus souvent selon la grille de l'enquête de l'EIACA - Enquête internationale sur l'alphabétisation et les compétences des adultes, 2003). Les personnes au niveau 1 d'alphabétisation ont de grandes difficultés à lire, écrire et calculer. Au niveau 2, elles peuvent lire seulement les documents écrits simplement, dont la mise en page est claire et dont le contenu est peu complexe.

La mission de ces groupes est essentiellement l'éducation à l'échelle locale. Les pratiques d'alphabétisation sont adaptées et personnalisées en fonction des besoins des adultes. Ce sont des « services individualisés, orientés sur les besoins de chaque adulte » (G01) dont le but est de les rendre fonctionnels et plus autonomes au quotidien, favorisant ainsi leur intégration dans la société. Les pratiques d'alphabétisation des groupes d'éducation populaire sont qualifiées de populaires, humanistes et créatives. On les dit à la fois citoyennes, car axées sur la participation collective et la démocratie, mais aussi conscientisantes, car elles visent à engager les adultes et constituent donc un moyen de socialisation ou de transformation de la société. Sur ce dernier aspect, plusieurs groupes se méfient de l'idéologie sous-jacente à l'alphabétisation conscientisante. La jugeant trop militante, les répondants préfèrent ne pas se positionner comme acteurs engagés et souhaitent ainsi « laisser les adultes prendre leur décision » (G127); alors que pour d'autres organisations guidées par la pensée latino-américaine de Paulo Freire (1978), il est impératif que les adultes développent leur esprit critique et prennent conscience de leur situation pour mieux la contrôler et contrôler leur milieu. La mission des groupes est également sociale et culturelle. Les répondants veulent renforcer l'autonomie, l'estime de soi et la confiance en soi des adultes; ils veulent intégrer les adultes dans la société et améliorer leurs conditions de vie.

L'environnement selon les groupes d'éducation populaire

Pour les représentants des groupes d'éducation populaire interviewés, l'environnement est tout ce qui nous entoure. Il correspond, par ordre d'importance relative, au milieu de vie, à la nature et à l'environnement planétaire.

Le milieu de vie est là où on habite et où on se côtoie. On y retrouve la famille, la communauté, le milieu de travail, l'école, et plus largement la société. Ainsi, un répondant dit de l'environnement : c'est « mon quartier, ma ville, ma responsabilité, les actions dans mon quartier » (G069). D'un point de vue spatial, il est perçu comme étant très local. Il est aussi humain (réseaux de relations humaines) et comprend un bâti (logement, ville, etc.) dominé exclusivement par l'activité humaine. Que cette première représentation soit dominante dans le discours des groupes interviewés n'a rien de surprenant car Bourret et Ouellet (2006) ont mis en évidence que ces groupes souhaitent intervenir dans le milieu de vie des adultes et même constituer en soi un milieu de vie pour les adultes.

L'environnement est aussi la nature pour les répondants des groupes d'éducation populaire. L'environnement naturel présente des caractéristiques qui supposent l'absence d'activités humaines : beauté, pureté, propreté et calme sont des mots choisis pour le décrire. Les répondants dépeignent des milieux aquatiques et forestiers. La percevant principalement comme un milieu vivant, les répondants ont souvent mentionné la vie végétale et animale au sein de la nature. Ils pensent que l'environnement ne semble plus être celui qui entoure les communautés humaines, mais celui dont ils sont exclus, définissant la nature où les activités humaines sont inexistantes, ce qui correspond à une cosmogonie très occidentale (Sundberg, 2014).

L'environnement est enfin décrit comme un écosystème planétaire. Il est tout ce qui existe et dont on dépend. Cette conception propose une vision plus large de l'environnement reconnaissant les liens d'interdépendance. En somme, l'environnement est un écosystème planétaire dont l'humain a besoin, car il lui fournit des ressources indispensables à sa survie. L'environnement est alors ce qu'on respire, boit et mange, et de manière générale, ce qu'on consomme. Les groupes ont aussi mentionné le caractère dynamique de ce système : le climat est un exemple frappant des changements qui nous affectent.

Préoccupations environnementales des groupes d'éducation populaire

Les préoccupations environnementales des personnes interviewées se traduisent dans leur discours par l'énoncé de problèmes environnementaux et d'actions environnementales réalisées au sein de leurs organisations.

Selon les répondants, les groupes d'éducation populaire sont préoccupés par les questions environnementales réelles : pollution industrielle, pollution automobile, pollution des milieux de vie, destruction de la nature, surexploitation des ressources naturelles, surconsommation et changement climatique.

L'environnement est à leur avis une responsabilité à la fois collective et individuelle, et il faudrait trouver une solution à chaque problème environnemental. Cela peut représenter un défi, car les problématiques environnementales sont dépeintes comme complexes et les solutions devraient se rapporter à des actions ou à des comportements concrets. De plus, selon les réponses, les problématiques environnementales découlent des choix socioéconomiques, et leurs conséquences sont à la fois écologiques et sociales. Au sujet des adultes avec lesquels ils travaillent, les groupes se disent soucieux du vécu des personnes et de leur contexte de vie. À leur avis, les problématiques environnementales préoccupantes pour les adultes seraient la pollution des milieux de vie ainsi que la détérioration de leurs conditions de vie.

Les groupes d'éducation populaire interviewés insistent beaucoup sur l'agir environnemental qu'ils considèrent comme une responsabilité sociale. Les actions environnementales qu'ils réalisent correspondent à de petits gestes au quotidien et à des actions concrètes des individus et des collectivités. Ils évoquent en ce sens des types d'agir comme la gestion des matières résiduelles (recyclage, récupération, compostage et réutilisation) et dans une moindre mesure, la consommation responsable (achat de produits locaux et biologiques). Développer la conscience écologique constitue une dimension de l'agir environnemental tel que les groupes le conçoivent : des processus de sensibilisation, de conscientisation ou d'éducation à l'environnement devraient mener à l'adoption de saines habitudes de vie, en faisant référence par exemple à la simplicité volontaire et au développement durable. Il faudrait encourager trois types d'action pour mieux gérer les matières résiduelles, protéger la nature et se préoccuper de l'écosystème planétaire :

- Un milieu de vie sain et propre où il faut recycler et récupérer. Nous avons vu en effet que les groupes d'éducation populaire sont préoccupés par les conditions de vie des adultes fréquentant leur organisme. Ils se sentent concernés par la qualité de leur milieu qui devrait être sain et propre. Ils s'inquiètent des impacts de sa détérioration sur la santé et le bien-être des personnes. Pour eux, la qualité du milieu de vie repose sur la responsabilisation individuelle et collective et sur des actions quotidiennes concrètes axées sur une bonne gestion des matières résiduelles, notamment le recyclage et la récupération.
- Une nature pure et belle qu'il faut protéger. Les groupes d'éducation populaire sont sensibles aux qualités qu'ils attribuent à la nature. Par exemple, son odeur, le calme que peuvent procurer les chants des oiseaux ou l'écoulement d'un ruisseau. Ses aspects sont considérés comme étant porteurs de bien-être dont il faut savoir profiter. Mais la nature est menacée par les activités humaines, en particulier par l'exploitation des ressources naturelles. Les citoyens sont invités à mieux respecter et protéger les milieux naturels.
- L'écosystème planétaire où s'opèrent d'importants changements dont il faut avoir conscience. Les quelques préoccupations jugées plus alarmantes se rattachent aux changements climatiques qui ont des incidences sur l'ensemble

des êtres vivants et sur l'avenir de l'humanité. Si les actions proposées par les groupes d'éducation populaire se situent davantage au niveau pédagogique en visant la « conscientisation » et l'éducation des personnes, d'autres visent le maintien de l'équilibre écologique; en particulier, il faut consommer de façon responsable, mais la façon de s'y prendre n'est pas précisée.

Éducation relative à l'environnement selon les groupes d'éducation populaire

L'éducation relative à l'environnement n'est pas un champ théorique et pratique avec lequel la plupart des groupes interviewés se sont dits familiers, même si parfois ils pensent avoir participé à des actions ou évènements qui s'y rapportaient sans doute. Malgré ces hésitations, les personnes interrogées pensent que l'ERE peut être arrimée à l'éducation des adultes. Les groupes ont tenté de nous expliquer ce que signifierait pour eux « faire de l'éducation à l'environnement avec des adultes ». Certains mots-clés ont été fréquemment utilisés en lien avec l'environnement : sensibilisation, éducation, conscientisation, information, vulgarisation, responsabilisation, mobilisation et implication. Il ressort ainsi que plusieurs missions ou buts sont attribués à l'ERE :

Éduquer les adultes à l'environnement concrètement et quotidiennement.

L'ERE devrait présenter des dimensions pratiques et concrètes pour trouver une résonnance au quotidien et répondre aux besoins des adultes parce qu'un adulte « n'apprend pas de la même façon qu'un enfant : l'adulte va apprendre à travers la pratique et la mise en application, mais aussi s'il sent que ça le touche dans sa vie de tous les jours » (G053). En somme, « il faut que les acquis des adultes se transfèrent dans la vie quotidienne » (G122) en leur montrant à quoi ils servent au moyen d'explications, d'exemples, de gestes ou de projets concrets.

Sensibiliser à l'impact des gestes de chacun sur l'environnement et en faire prendre conscience.

Pour nombre de groupes, sensibiliser et conscientiser, c'est offrir la possibilité aux adultes d'« acquérir la connaissance des différentes conséquences de leurs gestes, des tenants et aboutissants » (G09)… pour essayer de trouver des solutions (G109 et G130).

Amener les adultes à se sentir plus concernés par les enjeux environnementaux : y être plus sensibles et avoir une conscience morale plus développée.

Sur le plan affectif, l'ERE devrait amener les adultes à « sentir que ça [l'environnement] les touche dans leur vie de tous les jours » (G079). Se sentir concerné repose aussi sur le développement d'une « conscience morale plus aigüe chez les adultes » en matière d'environnement (G067).

Susciter l'implication et la responsabilisation à l'environnement.

Chacun « est responsable face à ce qui se passe » (G143) et « doit faire des efforts ou du moins, faire sa part » (G035). C'est le rôle de chaque personne de protéger la nature et la planète pour les générations futures en éduquant ou en prenant s'il y a lieu des mesures coercitives pour arrêter l'usage de polluants.

Vulgariser l'information relative aux problèmes environnementaux.

Selon quelques groupes d'éducation populaire, les adultes ne comprennent pas toujours le langage associé à l'environnement qui est diffusé dans les médias. Il en ressort que leur incompréhension laisse place à la peur. Selon un organisme « il faut vulgariser, fortement adapter l'information et les amener sur le terrain » (G002).

Développer l'esprit critique pour être acteur de changement.

La conscientisation environnementale est associée à l'idée de « faire réfléchir, de mobiliser pour passer collectivement à l'action », notamment avec « des projets spéciaux [en] impliquant et mobilisant les apprenants dans l'organisation des activités » (G099). Bien que certains répondants disent que la mobilisation est difficile à concrétiser, il demeure que l'objectif partagé par plusieurs groupes est celui de « sensibiliser [les adultes] afin qu'ils fassent partie du changement et qu'ils sentent qu'ils peuvent faire partie de la solution » (G095).

Projets et actions d'ores et déjà menés par les groupes d'éducation populaire

Si les groupes d'éducation populaire se disent préoccupés par l'environnement, les pratiques courantes ou développées par le passé sont essentiellement centrées sur la gestion des matières résiduelles (recyclage, réutilisation, compostage) et sur la consommation responsable : ne pas surconsommer l'eau ou l'énergie, ou encore, consommer selon des logiques locales et équitables autant que possible. Des ateliers, des cafés-rencontres, des films sont à la base de leurs actions. Des initiatives de plus grande envergure, par exemple une pièce de théâtre environnementale, sont rarement mentionnées.

Conditions d'intégration de l'ERE à la mission des groupes d'éducation populaire

Selon les répondants, les groupes d'éducation populaire sont intéressés à intégrer l'ERE à leur mission première. Pour certains, il s'agirait d'inclure des ateliers ponctuels sur des questions environnementales (films, discussion, jeux-questionnaires, travaux pratiques, etc.); tandis que pour d'autres, il y aurait lieu de s'investir dans des projets de plus grande envergure à long terme (par exemple, des jardins collectifs ou une friperie) ou dans des projets de création

de matériel pédagogique adapté à leur réalité en puisant dans leur expertise. Tous les répondants mettent en évidence la question épineuse du financement de cette intégration car ils réalisent leur mission dans un contexte de grande précarité alors que, comme le soulignent si justement Bélanger *et al*. (2014, p.5), leur mission éducative est plus que jamais nécessaire. Ainsi, les projets, petits ou gros, nécessitent un minimum de ressources financières et devraient être appuyés par un ensemble d'acteurs du milieu. L'engagement du milieu ferait donc partie des conditions d'intégration de l'ERE à l'alphabétisation.

Les répondants recommandent également que les pratiques éducatives intégrant l'ERE des adultes et l'alphabétisation soient concrètes et qu'elles respectent les besoins des adultes.

De leurs points de vue, l'intégration « permanente » ou récurrente des questions environnementales réelles aux pratiques d'alphabétisation pourrait se faire à plusieurs conditions :

La création d'activités et de matériels pédagogiques adaptés.

Il importe de respecter la mission première d'alphabétisation dans la création d'activités et de matériels pédagogiques pour intégrer adéquatement les questions environnementales intéressant les adultes. Plusieurs répondants voudraient avoir accès à du matériel déjà conçu tandis que d'autres souhaiteraient s'engager dans la conception voire l'expérimentation de nouvelles pratiques éducatives interdisciplinaires, si possible en étant accompagnés par des experts.

La formation des intervenants et/ou formateurs des groupes d'éducation populaire.

La formation des intervenants et/ou formateurs est essentielle pour qu'ils se sentent plus motivés et plus compétents (G02; G145). Pour plusieurs personnes, l'ERE partage des objectifs de responsabilisation citoyenne qui sont aussi des objectifs de l'alphabétisation et de l'éducation populaire. L'amélioration des conditions de vie des adultes qui est associée aux visées sociales ou aux intentions pédagogiques doit nécessairement s'effectuer dans une ERE ayant une perspective conscientisante.

Une ERE développée par les organismes spécialisés en environnement.

Une dernière condition – moins souvent énoncée – serait que l'ERE des adultes soit prise en charge d'abord par des organismes spécialisés en environnement en raison de leur expertise et de leur mission première ou même encore par les municipalités et des instances gouvernementales. Les groupes d'éducation populaire y joueraient alors un rôle de collaborateur dans la conception d'initiatives.

Discussion

Trois principales conceptions de l'environnement

Dans la mesure où il existe un lien marqué entre la représentation de l'environnement d'une personne et son agir environnemental, nous nous sommes intéressés aux représentations de l'environnement chez les participants à cette étude. Nous les avons analysées au regard de la typologie des sept représentations-types de l'environnement de Sauvé (1997, 2001) (nature, ressource, problème à résoudre, système, milieu de vie, biosphère et projet communautaire). L'analyse montre que trois d'entre elles sont prégnantes dans le discours des groupes d'éducation populaire : 1. L'environnement-milieu de vie est celui du quotidien des populations. C'est celui qu'il faut apprendre à connaitre et à aménager : « C'est [leur] propre environnement » (Sauvé, 1997, p.14). Ce milieu de vie des adultes qui fréquentent les groupes constitue une importante préoccupation et motive donc la volonté de rendre l'environnement plus propre et moins pollué. 2. L'environnement-nature est aussi une représentation énoncée par les répondants qui signalent qu'il faut prendre des mesures pour le préserver et le respecter. On retrouve souvent cette représentation chez les naturalistes qui apprécient une nature vierge, pure, « sauvage » (Sauvé, 1997). 3. Enfin, l'environnement-biosphère est la dernière représentation évoquée dans notre enquête. On prend désormais conscience de la finitude de notre planète. Les changements climatiques sont notamment des questions d'actualité qui donnent matière à réflexion aux adultes comme aux groupes d'éducation populaire.

Par ailleurs, les personnes interrogées semblent vouloir relier des environnements qui, en apparence, peuvent être vus comme opposés. L'environnement habité, celui du milieu de vie des adultes, est présent dans le discours des groupes au même titre que l'environnement naturel; il faut reconnaitre que ce dernier est assez présent dans le discours des groupes, mais son arrimage avec la réalité des adultes qui fréquentent leur organisation n'est pas explicité. Enfin, le milieu de vie « proche », le microsystème, est mis en relation avec « le lointain » ou macrosystème, celui de la biosphère, car on peut comprendre que le milieu de vie, tout comme la planète, sont mis à mal dans une crise environnementale multidimensionnelle.

Une telle analyse met en évidence qu'il y aurait lieu d'élargir les conceptions de l'environnement véhiculées dans les groupes d'éducation populaire, par exemple en explorant celle d'un environnement-projet communautaire et ainsi stimuler la collaboration avec les autres acteurs de la communauté. Il s'agirait d'encourager des processus où les membres des communautés s'engagent dans des actions collectives transformant leurs réalités.

Enfin, il apparaît que les domaines d'actions environnementales ciblées par les répondants des groupes rejoignent en partie ceux des adultes interviewés dans cette même enquête, et qui sont les adultes avec lesquels les groupes

interagissent, c'est-à-dire, le maintien de la propreté de leur milieu de vie, le recyclage et le compostage, et la consommation responsable (Villemagne, Daniel, Sauvé et Joyal, 2017). L'adoption d'une approche critique des réalités socio-écologiques permettrait d'enrichir la signification de ces gestes individuels et de les situer dans une perspective politique, c'est-à-dire collective et structurelle.

Deux courants éducationnels en jeu

L'analyse du discours des groupes d'éducation populaire au sujet de l'alphabétisation des adultes et ensuite de l'ERE des adultes met en évidence la coexistence de plusieurs courants éducationnels guidant leurs pratiques éducatives auprès des adultes.

Tout d'abord, une vision éducative centrée sur l'adulte semble prévaloir lorsqu'il est question de répondre à ses besoins particuliers ou encore de concevoir un accompagnement individualisé. L'adulte est donc censé être en mesure de faire des choix éclairés pour lui-même; on tente de lui permettre d'acquérir les compétences dont il aura besoin pour son intégration à la société telle qu'elle est (Finger et Asun, 2001). L'ICEA (2001) dénonce une telle vision qui est souvent réduite à travailler uniquement sur l'employabilité de l'adulte. Par contre, selon les répondants, il est aussi possible de mettre en évidence une tradition humaniste de l'intervention éducative chez les groupes d'éducation populaire lorsqu'il est question d'ERE des adultes : on y trouve une volonté de développer une conscience et un agir écologiques ancrés dans une connexion avec la nature, où l'adulte s'actualise et puise les motivations pour examiner et résoudre de façon créative les problèmes socio-environnementaux, sans forcément en faire une analyse structurelle et politique préalable (Walter, 2009).

Une seconde conception de l'éducation ressort des propos des répondants. L'ERE serait une question d'information et de sensibilisation, en particulier en ce qui concerne les écogestes et les comportements responsables que les adultes devraient adopter. Ici, ce sont certains aspects du courant béhavioriste en éducation qui transparaissent. Or, comme le souligne Sauvé (1998), l'ERE a souvent été limitée jusqu'à maintenant à l'exploitation du thème de la gestion des déchets dans une perspective d'écocivisme. Il y a donc lieu de l'élargir aux différentes perspectives, en particulier en lui associant des dimensions éthiques et critiques.

Enfin, soulignons que nous n'avons pas pu mettre clairement en évidence l'existence des visions socioconstructiviste et critique de l'éducation comme fondement de l'ERE. Il aurait par exemple fallu relever des propos qui soulignent que le savoir et le changement se réalisent au cœur de processus collectifs et interactifs. Quant à la perspective critique, elle insiste sur le rôle de l'éducation comme instrument d'une critique sociale et politique (Maubant, 2004, p. 29). Dans ce cas-ci, nous aurions dû remarquer dans les propos des répondants que le but de l'éducation des adultes est de transformer la société. Un tel but

aurait rejoint celui de la tradition radicale de l'ERE des adultes qui vise des transformations socio-environnementales à travers l'examen critique des fondements de la crise environnementale et l'élaboration de solutions créatives alternatives. Dans cette tradition, le rôle de l'éducateur en est un de facilitateur, de co-investigateur, d'organisateur et d'activiste (Walter, 2009). Ce dernier rôle, nous l'avons vu, fait peur à certains répondants des groupes d'éducation populaire.

La responsabilité individuelle et collective en environnement

La notion de responsabilité environnementale est omniprésente dans le discours des groupes d'éducation populaire. Pourtant, elle semble comporter des ambiguïtés et soulever des enjeux. Par exemple, lors de nos échanges avec des adultes qui fréquentent les groupes d'éducation, certains ont souligné leur incapacité financière à consommer des produits écologiques et non polluants pour l'environnement : « Nous autres, on est juste capable d'acheter des vieilles autos. Comment tu veux qu'on ne pollue pas ? » (Villemagne, Daniel, Sauvé et Joyal, 2017). Si la responsabilité environnementale s'érige en norme, force est de constater que les individus ne sont pas égaux au regard de leur capacité à la respecter. Par ailleurs, Boutinet (1998) dénonce le fait qu'on met trop l'accent sur la responsabilité individuelle, par exemple, la responsabilité de se former, ou encore celle d'exercer une écocitoyenneté. Ces impératifs pour l'adulte en situation de grande vulnérabilité sont énoncés dans un contexte de désengagement des institutions qui ne leur apportent plus autant de soutien et n'offrent pas les ressources financières dont les organisations communautaires ont besoin. Si les adultes sont incités à exercer leurs responsabilités sous toutes ses formes et dans divers domaines, les organisations dirigeantes et structurantes, étatiques, communautaires, économiques, etc., devraient aussi être invitées à faire leur part; c'est-à-dire, ne pas renvoyer aux individus les conséquences de leur désinvestissement. C'est ainsi que l'on s'interroge sur le rôle des états dans la protection de l'intérêt général (Dugas, 2006). Pourtant, pour Sauvé (1998), l'ERE s'inscrit dans une éducation à la responsabilité globale ou intégrale basée sur la reconnaissance du rapport fondamental entre l'humain et la nature, entre l'être et l'agir et l'objet et le sujet. Il s'agit ainsi d'une ERE qui participe à la reconstruction du réseau de relations personnes-société-environnement et au cœur de laquelle les personnes et les groupes sociaux doivent être appuyés et accompagnés en vue d'améliorer les conditions de vie et d'existence de l'ensemble du monde vivant dont ils font partie intégrante. Il y a aura donc lieu de clarifier la notion de responsabilité avec les groupes d'éducation populaire au cours de l'élaboration de pratiques conjuguant ERE et alphabétisation des adultes.

Conclusion

Concevoir des pratiques éducatives intégrant l'ERE et l'alphabétisation des adultes constitue à notre avis un défi de taille même si plusieurs acteurs potentiels sont fort motivés à s'y engager. La conciliation des finalités et des buts éducationnels poursuivis est certes un défi à relever. Un dialogue transparent et respectueux des expertises de chacun des partenaires devrait faire l'objet d'un soin particulier dans la mise en œuvre d'une dynamique de collaboration. L'adoption d'une telle dynamique endogène et de coformation devrait permettre de développer des pratiques éducatives qui transcendent les positions paradigmatiques qui caractérisent l'agir professionnel des intervenants des groupes d'éducation populaire. En effet ces dernières semblent différentes des nôtres puisque nous adoptons une perspective critique de l'ERE des adultes en vue d'une transformation du rapport à l'environnement des personnes et une transformation de la société elle-même.

Notes sur les auteures

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Can We Teach the Earth Charter Anymore? A Critical Examination of the Earth Charter's Role in Education

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Abstract

The Earth Charter has become a dated guiding document for the field of environmental education. When the document debuted in 2000 as the global "framework to guide the transition to a sustainable future" (Earth Charter Initiative, n.d.-a, para. 2), the writers promoted it as a solution to environmental problems that incorporated voices of a wide spectrum of diverse communities from across the globe. The Earth Charter is a broad and ambitious document, designed to encourage action at local, national, and international levels (Earth Charter Initiative, 2009). Using critical discourse analysis methodology and social justice lenses, this paper examines the value of the Earth Charter as an educational tool as we enter the Anthropocene, a new geologic period in which our species is the largest force influencing and changing the planet (Olvitt, 2017). We argue that the Earth Charter reinforces dominant oppressive myths of sustainable development and excludes concerns voiced by marginalized populations. In perpetuating problematic narratives, we question the Earth Charter in its current form as a relevant and useful framework for informing environmental education 20 years after its publication. We suggest a method for updating the Earth Charter with social justice framing, using democratic, co-creative tools that are accessible to communities around the world, in their own languages.

Résumé

Publiée en 2000, la Charte de la Terre est aujourd'hui dépassée en tant que document-guide en éducation à l'environnement. Présentée à l'époque comme un cadre mondial qui guiderait notre transition vers un avenir durable (Earth Charter Initiative, s.d., paragr. 2), elle apportait, selon ses auteurs, une solution aux problèmes environnementaux qui conjuguait les voix d'une pluralité de groupes dans le monde. Document large et ambitieux, la Charte se voulait un moteur d'action à l'échelle locale, nationale et internationale (Earth Charter Initiative, 2009). La valeur de la Charte de la Terre en tant qu'outil éducatif à l'aube de l'Anthropocène, cette nouvelle période géologique où, de toutes les espèces, c'est l'humain qui exerce la plus grande influence sur la planète (Olvitt, 2017), est revue à la lumière d'une analyse critique du discours et sous l'angle de la justice sociale. Nous avançons que la Charte de la Terre renforce non seulement les mythes oppressifs dominants du développement durable,

mais exclut aussi les préoccupations exprimées par les populations marginalisées. Or, sachant qu'elle perpétue des discours problématiques, nous remettons en question sa pertinence et son utilité sous sa forme actuelle, vieille de 20 ans, pour orienter l'éducation à l'environnement. Nous proposons une méthode de mise à jour du document qui intégrerait un cadre de justice sociale et des outils démocratiques et cocréatifs accessibles aux sociétés du monde entier, dans leur langue.

Keywords: Earth Charter, environmental education, education for sustainable development, inclusion, culturally relevant pedagogy, anthropocentrism, ecocentrism

Mots-clés : Charte de la Terre, éducation à l'environnement, éducation au développement durable, inclusion, pédagogie culturellement adaptée, anthropocentrisme, écocentrisme

Can We Teach the Earth Charter Anymore? A Critical Examination of the Earth Charter's Role in Education

The Earth Charter is a succinct, four-page document that promotes guidelines for global solutions to environmental problems. Its 16 principles fall under the headings of "Respect and Care for the Community of Life"; "Ecological Integrity"; "Social and Economic Justice"; and "Democracy, Nonviolence and Peace" (Earth Charter Commission, 2000). This charter is intended to promote human rights, peace, and well-being for all living things on the planet. The purposes of the Earth Charter are many, but one of the main functions is to act as an educational tool for promoting global sustainable development (Earth Charter Initiative, n.d.-a, para. 7). Although the document omits specific references to *environmental* education, it is nevertheless an influential tool for the United Nations' Decade of Education for Sustainable Development; (Earth Charter Initiative, n.d.-b, para. 10). David Gruenewald (now Greenwood), a place-based educational scholar, describes the document as "constantly challeng[ing] the assumptions and purposes behind existing practices and articulat[ing] a fundamentally different vision" (2004, p.100) of how environmental education is often characterised: naturalist education of liberal progressives.

The Earth Charter is the product of over a decade of planning, consultation, debating, and writing. The desire for a global document first came from the 1987 Brundtland Report, also known as *Our common future* (Earth Charter Initiative, n.d.-b, para. 1). Early planners envisioned the Earth Charter as a document behind which all nations could gather to solve the world's problems. The Earth Charter Commission was formed in 1994 by Maurice Strong and Mikhail Gorbachev (Earth Charter Initiative, n.d.-b, para. 3). Under their direction, the Earth Charter Drafting Committee was formed and led by Professor Steven C. Rockefeller (Earth Charter Initiative, n.d.-c, para. 2).

Although the Earth Charter was drafted for all nations, we question whether the process by which it was created truly allows for meaningful representation of marginalized communities we wonder about the authorship of the document. Three names that appear most often in connection with writing the document are Strong, Gorbachev, and Rockefeller, all of whom are three powerful White men. Maurice Strong, a Canadian-born globalist, had conflicting and paradoxical careers in the oil industry and the environmental movement (Corbett, 2016). Mikhail Gorbachev, best known as the last president of the Soviet Union, turned to environmentalism when his political career came to an end (Earth Charter Initiative, n.d.-d, para. 7-8). Steven C. Rockefeller is professor emeritus at Middlebury College (Vermont) and a member of the well-known Rockefeller family (Earth Charter Initiative, n.d.-d, n.d., para. 1). Although the 23 members of the Earth Charter Commission represented nations all over the world, all are described as "prominent figures" (Earth Charter Initiative, n.d.-d, n.d., para. 1) in their respective societies. Thus, this document was created by powerful people, for the entire world, and without the authors offering much proof of including disempowered voices.

Though Strong, Gorbachev, and Rockefeller are the faces of the Earth Charter drafting process, hundreds of organizations and governments and thousands of individuals helped to shape the text (Earth Charter Initiative, n.d.-c). On the website, the contributors are described as hailing from all over the world, bringing expertise in their fields, or representing "important constituencies" (Earth Charter Initiative, n.d.-c, para. 3). The sheer volume of people who contributed in some way to the Earth Charter is emphasized in its supporting website, but there is no readily available list of organizations or individuals who gave their input, or the process that was used to incorporate their concerns into the document. As such, it is difficult to determine whether the final product actually represents voices from a broad spectrum of the global population.

The Earth Charter in Education

The original intention of the Earth Charter Commission was to generate the document through a government-sponsored process. When that opportunity failed due to complex geo-political orientations at the time, the creators hoped the completed Earth Charter would be formally endorsed by the United Nations, with some partial endorsement by the United Nations Educational Scientific and Cultural Organization (UNESCO) and the International Union for the Conservation of Nature (IUCN). Today the Earth Charter remains a "people's treaty" without much formal power, but with moral authority and the potential to mobilize global responses to climate change and conservation initiatives. We believe that with some major rewriting it also has the potentiality to catalyze social justice initiatives. As stated earlier, the Earth Charter was influential in shaping the UNESCO Decade of Education for Sustainable Development from 2005–2014

(Earth Charter Initiative, n.d.-b, para. 10). In the Earth Charter Initiative's *Guide for using the Earth Charter in education* (2009), the authors state the following goals of education for sustainability:

- To understand the challenges and critical choices that humanity faces and appreciate the interconnections between these challenges and choices;
- To comprehend the meaning of a sustainable way of life and of sustainable development and to create personal goals and values conducive to a sustainable way of living; and,
- To critically evaluate a given situation and identify action goals for bringing about positive change. (p. 7)

We affirm the importance of the Earth Charter as a vital and influential document. Yet, the foregoing goals lack specific reference to "environmental" education per se because, as Gruenewald (2004) argues, the Earth Charter is supposed to be non-controversial and environmental education is often politicized. Despite this, Earth Charter International (n.d.) linked the Earth Charter to environmental education by stating, "all principles in the Earth Charter are related to environmental issues" (p. 1) and touting the document as an educational tool.

We believe the ambition of the Earth Charter's document has not been realized over the last two decades. Increasing pressure is mounting on Earth systems, political divide is rampant, and we sit on a critical edge of resiliency unprecedented in human history (IPCC, 2018). We look to the concept of social justice as a way not only to understand the value of the Earth Charter in the Anthropocene but also to examine this document and its continuing value in the future visions of life on Earth.

Methodology

We seek to understand the current saliency of the Earth Charter, and to do so we appreciate the need to identify our biases. We are a group of White graduate students and one professor, from primarily middle-class backgrounds; we study environmental education; and we recognize that our positionalities inevitably inform our world views. We acknowledge and attempt to address our inherent biases and seek to look at the Earth Charter through a critical lens in order to contribute to the discourse examining oppressive forces within education. Our bias as environmental educators, which is steeped in the analysis of environmental education theorists such as Bowers (2001a), Jickling and Wals (2008), Sauvé (2005), and Stapp (1969), limits our perspectives on viewership into some aspects of social justice. As such, we believe that it is vitally important for us to acknowledge our biases as we explore "traditional" orientations of environmental education. We

believe that critical analysis of environmental education aids in disrupting the ongoing processes of White supremacy, racism, marginalization, and oppression that stem from the field.

Our team used critical discourse analysis (Chambers, 2009; Fairclough, 2012; Jorgenson & Phillips, 2002) as a way to examine the language used within both the Earth Charter and some primary literature written about the Earth Charter (specifically, Antunes and Gadotti [2005], Bosselmann [2004], Clugston [2010], Corcoran [2004], Gruenewald [2004], Preston [2010], and Tucker [2008]). We recognize that social and cultural landscapes are rooted in linguistics and discursive processes. Discourse is politically bound, complicit in its agency. Moreover, the analysis of language and terminologies can expose societal and political meaning inherent therein. By examining text, language, and discourse within larger social practice, notions of bias and the underlying world views of documents such as the Earth Charter can be surmised and furthered. Jorgensen and Phillips (2002) note the objective of critical discourse analysis as explanatory critique, such as we are practicing here; it is:

> to promote more egalitarian and liberal discourses and thereby to further democratisation. A step in this direction is to make people aware that discourse functions as a form of social practice which reflects and takes part in the reinforcement of unequal power relations. (p. 88)

As the Earth Charter has an egalitarian aim, using critical discourse analysis to examine it invites readers to analyze ways in which such a document fails to "further democratisation" and awareness-building and, therefore, ways in which it has the potential to reinforce "unequal power relations."

In addition to critical discourse analysis, we examined the Earth Charter through the specific critical lens of social justice, drawing on particularly stemming from the myriad of perspectives found within Adams et al. (2018) in *Readings for diversity and social justice* and the ecocentrically oriented findings of Martusewicz, Edmundson, and Lupinacci (2014) in *Ecojustice education: Toward diverse, democratic, and sustainable communities*. We conducted six discussion-based meetings over fall 2018 and winter 2019 in which we considered various aspects of the Earth Charter and related peer-reviewed literature. These meetings led to a focussed analysis of three different aspects of the materials: inclusiveness in language, terminology, and communication; social justice education through culturally-relevant pedagogies; and world view. Each author was tasked with asking the question, how does the Earth Charter hold up as an educational tool within the Anthropocene?

For the remainder of the article, our analysis focusses on language and terminology use in the Earth Charter and related documents. The examination is divided into four sections: an introductory section that explores the relevance of the Earth Charter in today's educational climate; an analysis of the importance of inclusion in language, terminology, and communication within the Earth

Charter; an exploration of culturally relevant pedagogy and the Earth Charter; and an examination of world views presented within the Earth Charter.

Relevance of the Earth Charter in Today's Educational Climate

Despite the Earth Charter's attempts at creating a broad and inclusive framework for education for sustainable development across the globe, we suggest that the Earth Charter lacks the rigour it needs to become a transformative educational document in this day and age. We believe the Earth Charter does not go far enough in framing effective, inclusive education that opposes institutionalized educational practices. The Earth Charter is out of touch with developing trends in environmental education practices because the document uses exclusive terminology inherent in standardized education. Further, the Earth Charter does not sufficiently address problematic deficit approaches to marginalized people. Finally, the Earth Charter promotes an anthropocentric world view through sustainability education—a perspective that we find incongruent with the purpose of environmental education. We conclude our paper by questioning the utility of using the Earth Charter in its current form as a foundational document for environmental education or education in general.

Environmental education is in the midst of an identity crisis. Gruenewald (2004) believes environmental education is a field that, in practice, has "marginalize[d] its inherent critique of dominant culture" (p. 88) by attempting to become legitimate through standardization. When it was first published, he had high hopes for the Earth Charter's influence on environmental education. Even at that time, he raised a flag, however: "whether the Earth Charter can begin to influence moral judgement, public opinion, or education remains an open question" (Gruenewald, 2004, p. 100). We wonder if it is really an open question. Perhaps a better way to phrase this question is to ask: How can we reimagine an Earth Charter that is fair, just, inclusive, and culturally responsive?

The Freirian eco-pedagogues, Antunes and Gadotti (2005), suggest that the Earth Charter does not need to be changed; rather, it needs to be accepted in its current state, but should also be more strategically mobilized. They remark:

> The Earth Charter has contributed to the development of sustainability initiatives in schools and, principally, in communities. But, we still need to broaden the Earth Charter's recognition and acceptance around the world as a mobilizing force toward a culture of peace and sustainability, as a way to celebrate diversity. As a call for unity, it can be used to develop the meaning of responsibility with respect for quality of life and to become a force to fight terrorism based on a global consensus. (p. 137)

Whether the Earth Charter *should* influence education without significant restructuring remains an open question to us. Could opening the academic and public dialogue about the underlying purpose of the Earth Charter itself help with these noble endeavours of peace, sustainability, and diversity?

Environmental education is a transdisciplinary field that has historically brushed against social justice education without engaging with it at a deeper level. For example, only recently has the field of environmental education started to acknowledge the necessity of integrating cultural and political knowledge—particularly from Indigenous communities—with "the devastation and damage to the Earth by a colonial, exploitative, industrial mindset" (Korteweg & Russell, 2012, p. 6) through special volumes such as the *Canadian Journal of Environmental Education* Volume 17 (2012) and *Environmental Education Research* Volume 20 (2014, No. 1). The integration of environmental education and social justice education through decolonizing environmental education is an essential and painful process (Tuck & Yang, 2012). Simply changing the terminology of the Earth Charter to make a superficial nod toward inclusion of Indigenous perspectives is not sufficient; the principles on which the document was written must shift to "actively recognizing, centring, validating, and honouring Indigenous rights, values, epistemologies or worldviews, knowledge, and the stories of the people of the Land" (Korteweg & Russell, 2012, p. 7) to be considered relevant in today's educational climate.

The Importance of Inclusion in Language, Terminology, and Communication

The Earth Charter was written with the intention of creating a positive future-looking ethical foundation for a global community. Though created in the spirit of inclusivity, the document has lost relevance over time as widely recognized standards for diversity, equity, and inclusion have developed and grown more nuanced (Adams et al., 2018; DiAngelo, 2018). We want to take a moment, at the suggestion of one of the reviewers of this article, to identify what we mean by the term inclusivity. We consider inclusivity to be radical pluralism that welcomes multiple positions and identities into dialogues, learning, and partnership. Esteva, Prakash, and Shiva's (2014) book *Grassroots post-modernism* speaks to the complexity of global and local movements that seek to manifest a "Global Project." This book identifies the concept of Radical Pluralism (derived from Panikkar, 1990):

> This love [Radical Pluralism] is to be found in the act of identifying oneself with the Other, surrendering to the Other's identity, trying to immerse oneself in it, without ever losing one's own identity. This pluralism cannot be equated with moral relativism. Pluralism is not the same as plural. That truth is pluralistic implies denying that it is either one or many; that it is possible to reduce it, to quantify it, to compare it, with a "superior," supra-cultural criterion. Approaching the world as a pluriverse, without renouncing one's own universe, calls for the adoption of diatopic and dialogic approaches which bring us to juridical pluralism. With this comes a radical questioning of any universalist attitude about law and rights. Cultures that probably represent the majority of the people on Earth lack words or concepts equivalent to the notion of "a right." (Esteva et al., 2014, p. 130)

Indeed, even as the Earth Charter was entering the endorsement phase, new developments in critical discourses, including those on race, gender, class, and sexuality (Bell & Russell, 2000), were entering educational discourse, and communities that are directly affected demand a pluriverse of recognition, attention, and justice. Within the environmental movement, problematic and biased terminology has contributed to a binary-oriented view of the relationships between humans and nature (Bell, 1996). This terminology perpetuates attempts to solve problems using the same processes that created them (Bowers, 2001a). It also contributes to the systemic oppression of minoritized individuals through the reinforcement of an industrial-capitalist model based on the exclusion of non-hegemonic identities.

When addressing large-scale social and cultural ills known as "wicked problems" (Kolko, 2012), it is important to recognize that just replacing the discourse on these issues with "good terminology" is not enough. Authentically inclusive terminology is a call to take action by interrupting and dismantling the ways in which institutions construct and perpetuate systems of oppression (Fairclough, 2012). The Earth Charter emphasizes gender equality but does so using a limited and now outdated binary framework which sees the only goal as giving women the same opportunities as men. Since the Earth Charter was created, the movement for gender equality has developed a much more comprehensive and complex understanding of gender and all aspects of identity. This is also true with regard to intersections of gender and other identity markers, such as sexuality, race, and class. There are persistent challenges in normative language respecting race, class, gender, and ability in the context of access and equity (Lee & Anderson, 2009).

Though the Earth Charter calls for an acknowledgement of and action against social and environmental injustices, it does not address the deep root causes of hegemonic misogyny and systemic oppression that permeate a global world (Fairclough, 2012). C. A. Bowers, an environmental activist and educational scholar, argues:

> Environmental education contributes to the double bind of helping to address environmental problems while at the same time reinforcing the use of the language/thought patterns that underlie the digital phase of the Industrial Revolution we are now entering on a global scale. (2001a, p. 141)

The double bind to which Bowers is referring attempts to solve problems through the same methods by which they were created. In education, the social and academic opportunities available to students are directly linked to their ability to understand and identify themselves through language (Corson, 2000). Student action is best cultivated through inclusive language in which individuals see themselves reflected. If students around the world cannot see themselves included in the Earth Charter, they will not answer the call to create an ecologically just future.

Some may argue that the Earth Charter, as a document drafted in the late 20th century and first endorsed in 2000 (Earth Charter Initiative, n.d.-b) should not be held accountable for more recent changes and developments in the inclusive terminology used by educators. We acknowledge this, and also recognize the challenging nature of drafting a document that aims to be accessible to a large audience while using language that assumes a mirroring relationship between the word and the world (Lather, 1996). However, we feel the problems with terminology in the Earth Charter run much deeper than a mere failure to meet today's criteria for inclusivity.

We agree with Tucker (2008) that "we face a crisis of hope that we can make a transition to a viable future for the Earth community" (p. 20) and suggest that diverse religions, positionalities, and identities can offer alternate and inclusive views into complex problems. However, stating that the Earth Charter is "the most inclusive civil society document ever negotiated" denies the reality of what inclusion, from start to finish, looks like. This is especially true when we take into consideration younger generations championing environmental and social justice movements who have new priorities of diversity, equity, and inclusion and who use new and particular terms within those fields.

The solution to this lack of true inclusiveness within the Earth Charter is to turn to advances in critical discourse on inclusivity, equity, and access while avoiding essentialism. One way to do this is applying the lens of intersectionality to our critical examination. Intersectionality is a term that suggests the identities expressed (and unexpressed) within individuals interact in and with other identities and are bound within and among rhizomatic systems of oppression (Grillo, 1995).

Such a shift in critical discourse explicitly would recognize the ways in which various socialized oppressions interlock to create subjugation that is distinct from any one form of inequity (Dhamoon, 2011). If we applied critical theory to the Earth Charter, we could identify and examine the power and problems within the current version of the document as these relate to the description of human connections with each other and with Earth. We could then modify the charter so that it contained welcoming terminology and intersectional language, and thus the charter could offer inclusive solutions that would counter exclusive social paradigms and colonialist economics that perpetuate the global environmental crisis. The modified language could promote, among other social justice topics, gender inclusivity.

A recent paper on intersectionality and environmental and sustainability education (ESE) by Maina-Okori, Koushik, and Wilson (2018) deeply examines how gender is explored through class, race, sexuality, and ability. The authors comment on the importance of looking through interconnective and intersectional lenses when considering the field of ESE:

> Examining the interconnections of social, ecological, and economic issues can help to inform a critical and inclusive conceptualization of societal problems and to reveal

> just and sustainable solutions to these problems. Without such analyses, ESE runs the risk of perpetuating dominant ideologies and further marginalizing and silencing diverse voices and issues. (Maina-Okori, Koushik & Wilson, 2018, p. 293)

Celebrating and supporting diversity and intersectionality initiatives is critical to help reshape environmental education and support educators in a just and inclusive future that practices radical pluralism.

Culturally Relevant Pedagogy and the Earth Charter

For too long, environmental education, like mainstream environmentalism generally, has been a mainly a White, upper- and middle-class domain which has failed to recognize the needs and contributions of marginalized communities. In response, a growing number of environmental educators are attempting to teach in ways that are culturally relevant for students coming from a diverse spectrum of racial, economic, and gender identities. *Culturally relevant pedagogy* (CRP), a theory developed by educational scholar Gloria Ladson-Billings (1995), is "a theoretical model that not only addresses student achievement but also helps students to accept and affirm their cultural identity while developing critical perspectives that challenge inequities that schools (and other institutions) perpetuate" (p. 469). CRP seeks to move beyond educational models that see students' cultural differences as "deficits." It recognizes students as active agents who are rich in their own knowledge and skills, which they bring to educational settings. We believe when the Earth Charter is examined through the lens of CRP, it becomes clear that the document takes a deficit approach to marginalized communities. The Earth Charter promotes a severely limited vision of environmental and social justice that fails to address the right of all people to play an active role in shaping their own futures. To understand how the Earth Charter falls short of recognizing and celebrating marginalized communities' own agency, it is necessary first to consider the long history of people from marginalized groups who have actively and often successfully fought back against environmental injustice.

Environmental justice (EJ) took shape as a distinct movement in the 1980s, though its roots extend much farther back into resistance against colonialism, racism, and other forms of oppression, both in North America and internationally. The movement's foundational document is *Toxic waste and race in the United States*, a study released by the United Church of Christ in 1987. The publication shows the correlation between the racial composition of communities and where toxic waste sites are located (United Church of Christ, 1987). A follow-up report released 20 years later, in 2007, showed no reduction in the degree to which race continues to be a predictor of where toxic sites will be located (Bullard, Mohai, Saha, & Wright, 2007).

Another watershed moment for the EJ movement occurred in 1991, when activists and academics, including Dr. Robert Bullard, organized the First National People of Color Environmental Leadership Summit. At the summit, the EJ movement released a list of 17 principles and made explicit a call to eliminate the exposure of marginalized groups to not only toxic waste sites but also nuclear radiation sources, toxic working conditions, and other environmentally harmful activities (Darby & Atchison, 2014). Today, the movement continues to advocate for eliminating entrenched systems of oppression that put marginalized communities at disproportionate risk of environmental harm and for building a broader-based environmental movement concerned with the needs of marginalized groups.

Environmental justice within the environmental education field has been characterized by a number of authors as ecojustice education (Bowers, 2001b; Mueller, 2009; Martusewicz et al., 2014). This orientation invites students, teachers, organizations, and other practitioners to recognize the intersectional nature of environmental education, to refuse the "dichotomy between social justice and environmental concerns" (Martusewicz et al, 2014, p. 10), and to understand that social justice and environmental concerns are "grounded in the same cultural history" (p. 10). Drawing on the work of C. A. Bowers (2001b), Martusewicz et al. (2014, pp. 9–10) offer a succinct, six-element framework that provides a useful lens for examining the Earth Charter's shortcomings:

1. The recognition and analysis of the deep cultural assumptions underlying modern thinking that undermine local and global ecosystems essential to life.
2. The recognition and analysis of deeply entrenched patterns of domination that unjustly define people of color, women, the poor and other groups of humans as well as the natural world as inferior and thus less worthy of life.
3. An analysis of the globalization of modernist thinking and the associated patterns of hyper-consumption and commodification that have led to the exploitation of the Southern Hemisphere by the North for natural and human resources.
4. The recognition and protection of diverse cultural and environmental commons—the necessary interdependent relationship of humans with the land, air, water and other species with whom we share this planet, and the intergenerational practices and relationships among diverse groups of people that do not require the exchange of money as the primary motivation and generally result in mutual aid and support.
5. An emphasis on strong Earth democracies: the idea that decisions should be made by the people who are most affected by them, that these decisions must include considerations of the right of the natural world to regenerate, and the well-being of future generations.
6. An approach to pedagogy and curriculum development that emphasize both

deep cultural analysis and community-based learning encouraging students to identify the causes and remediate the effects of social and ecological violence in the places where they live.

Many authors have regarded the Earth Charter as a visionary document that includes social and environmental justice as central themes. Section 12.a of the Earth Charter makes a call to "eliminate discrimination in all its forms, such as that based on race, color, sex, sexual orientation, religion, language, and national, ethnic or social origin" (Earth Charter Commission, 2000, p. 3). Some writers have apparently interpreted this and similar passages as a sufficient endorsement of the goals of environmental justice. For example, Gruenewald (2004) portrays the Earth Charter as representing a laudable "transformative discourse" that stands in stark contrast to mainstream environmental education (p. 100). Authors such as Gruenewald have also strongly praised the Earth Charter's language about justice and seem to feel the document does enough to acknowledge the goals of social movements such as environmental justice.

While we agree that the Earth Charter goes a long way toward demonstrating cultural sensitivity, what Gruenewald and others seem to have missed in our reading of their analysis of the Earth Charter is its deficit approach to marginalized people. In its current iteration, the Earth Charter envisions top-down global solutions to environmental problems, where oppressed communities are seen as passive and in need of rescue by benevolent saviours (presumably people of privilege). Section 9.c of the Earth Charter exemplifies this problematic approach to social justice, in which oppressed people are seen as passive victims awaiting salvation: "Recognize the ignored, protect the vulnerable, serve those who suffer, and enable them to develop their capacities and to pursue their aspirations" (Earth Charter Commission, 2000, p. 3). To be sure, altruism is admirable, and people with access to money and resources have a moral responsibility to use them for good. However, there is little room, in this vision, to conceive of marginalized people as active agents who are fighting against oppressive systems on their own terms. Work for the liberation of oppressed groups should be treated as a partnership in which all stakeholders are active participants, not as a top-down delivery of liberation from on high.

Environmental justice requires that oppressed groups be seen as fully capable of and deserving of the right to determine their own way forward, but the Earth Charter does not recognize this. Section 13.a embodies the document's problematic approach when it makes a call to "uphold the right of everyone to receive clear and timely information on environmental matters and all development plans and activities which are likely to affect them or in which they have an interest" (Earth Charter Commission, 2000, p. 3). Environmental justice is about far more than making information available; communities have the right not only to be informed about decisions that affect their local environment, but also to be actively involved in shaping and making those decisions.

The Principles of Environmental Justice released at the First National People of Color Environmental Leadership Summit are very explicit on this point. The Principles state that the EJ movement "affirms the fundamental right to political, economic, cultural and environmental self-determination of all peoples," and that communities have "the right to participate as equal partners at every level of decision-making, including needs assessment, planning, implementation, enforcement and evaluation" (Environmental Justice Network, 1996). The Earth's Charter's suggestion that communities simply need to be given information falls far short of these demands, further illustrating its deficit approach to marginalized people.

Incorporating concepts from environmental justice and other social movements of marginalized people should be considered an ethical imperative for educators, and it is an idea with immense practical value. EJ is an ideal lens through which to examine topics in the hard sciences, sociology, political science, the humanities, and other fields since possessing a good understanding of environmental justice controversies may require knowledge drawn from many diverse disciplines (Darby & Atchison, 2014). Authors including Kopnina (2016) have noted potential tension between the EJ movement's focus on marginalized *human* communities and the goal of a more ecocentric environmental paradigm that considers all organisms to be important for their own sake (p. 140). As a later section of this paper argues, we agree environmental education should become more ecocentric, and we view this as another place where the Earth Charter falls short. However, we also join Hung (2007, p. 46–47) in maintaining that many traditional cultures around the world have developed much more ecocentric orientations than today's mainstream Western culture. Thus, by recognizing the value of non-dominant cultures' perspectives, as EJ seeks to do, we can challenge students to consider relatively ecocentric worldviews. We must consider, as J. Drew Lanham does in *Orion* magazine, "the role that red, brown, and black people—who preceded ecologists and their almost exclusively white conservation 'movement'—played in shaping nature, and what those people know about the . . . landscape before they [ecologists] did" (Lanham, 2018, p. 30). We must also acknowledge the often undervalued past and present contributions of Indigenous ecologists and those from other marginalized groups (Kimmerer, 2013).

In short, when treated correctly, EJ provides an opportunity to connect environmental topics to students' lived experiences while opening a gateway to challenge White human supremacy from a variety of angles. However, as we have shown, the Earth Charter does not offer a sophisticated enough framework for doing this in a way that respects marginalized people's decision-making power. Rather than the deficit approach to marginalized people promoted in the Earth Charter, we believe environmental educators must embrace the alternatives embodied by culturally relevant pedagogy and its derivatives. This should be done with an awareness of how CRP has evolved over time, and of

how recent authors have critiqued some attempts to put CRP into practice. For example Paris (2012) writes, "We must ask ourselves if the research and practice being produced under the umbrella of cultural relevance and responsiveness is, indeed, ensuring maintenance of the languages and cultures of African American, Latinx, Indigenous American, Asian American, Pacific Islander American, and other longstanding and newcomer communities in our classrooms" (p. 94). Paris suggests what is really needed is *culturally sustaining pedagogy,* which is more than merely reactive or responsive. It seeks to "support young people in sustaining the cultural and linguistic competence of their communities while simultaneously offering access to dominant cultural competence" (p. 95). This is an important contribution to the foundation laid by CRP.

Despite the usefulness of engaging in such critiques, CRP and its derivative pedagogies stand among the most important responses to traditional deficit approaches to teaching (Ladson-Billings, 2014). Culturally relevant and culturally sustaining pedagogies regard students of all backgrounds as rich in the cultural, social, linguistic, and other forms of capital that they bring with them into educational settings. These students are actively involved in shaping their own futures and that of the world around them, just as marginalized communities have always defined their own goals through movements such as EJ. This is in direct contradiction with the language of the Earth Charter, which, as aforementioned, feeds into a deficit approach to teaching.

We cannot "teach the Earth Charter" and do a good job addressing the concerns of movements such as EJ and ecojustice education without a deep dive into supplemental material and critical thinking. The Earth Charter's assumption that oppressed communities are passive, its failure to treat them as deserving of full inclusion in decision-making processes, and its promotion of a deficit approach to marginalized people make it wholly insufficient as a tool for educators who wish to make our teaching culturally relevant.

World Views and the Earth Charter

A question we must ask ourselves is, "What world view is the Earth Charter promoting?" The answer, we argue, is that the Earth Charter reinforces the fundamentally anthropocentric, capitalist world view that permeates dominant Western culture and that treats the non-human biosphere mainly as a collection of resources to be privatized and exploited. This is despite the fact that the document sometimes uses terminology that appears on its face to suggest an ecocentric world view, one where plants, animals, and other lifeforms are celebrated for their intrinsic value (Preston, 2010). The Earth Charter's failure to challenge modern capitalism by embracing a robust ecocentrism is one of its most problematic aspects.

The negative effects of Western-style capitalism on people and the non-human environment are well-documented (see for example Chasin, 2004;

Klein, 2014; Korten, 2001; Shiva, 2008; and Vandermeer & Perfecto, 2005). Furthermore, while the discipline of environmental education presents itself as being in opposition to ecologically destructive activities, in practice it too often fails to question the anthropocentric, capitalist assumptions that undergird concepts like "sustainable development" (Hung, 2007, p. 41–42). For example, environmental education has tended to exclude or fail to take seriously the world views of Indigenous and other non-Western cultures (Cole & O'Riley, 2010; Tuck, McKenzie, & McCoy, 2014), many of whom espouse a greater ecocentrism than can be found in the capitalist world view that dominates in the West (Hung, 2007). We believe the Earth Charter follows the mainstream environmental education model in so far as it fails to challenge dominant Western world views in any meaningful way. This is a crucial oversight because attempting to address environmental problems without questioning the conditions under which those problems were created effectively eliminates the possibility of accomplishing the vision the Earth Charter puts forth. Reverend Lynice Pinkard, an activist of faith in California, highlights the necessity of questioning capitalism in her 2013 interview with *Tikkun* magazine, in which she says, "global capitalism binds the majority of the Earth's population into poverty, substitutes consumption for humanity and the love of life, and fosters wanton depletion of the Earth's resources" (p. 32). It is highly challenging to envision how a capitalist society could effectively teach the values and principles of environmental education without engaging in gross hypocrisy.

To be sure, certain passages in the Earth Charter do at least attempt to break free from an anthropocentric, Western capitalist world view. For example, its first principle—(1.a)—is to: "Recognize that all beings are interdependent and every form of life has value regardless of its worth to human beings" (Earth Charter Commission, 2000, p. 2). However, despite this apparent nod to a holistic ecocentrism, we believe that when taken in its entirety, the Earth Charter continues to promote an anthropocentric world view that reinforces capitalist systems.

One way in which the charter displays its anthropocentric, pro-capitalist stance is through its use of terminology. Words and phrases elated to production, resource extraction, and development propagate the anthropocentric dogma that the Earth is for human consumption, while operating within the existing oppressive frameworks of capitalism and "sustainable growth" that led to the ecological degradation and social injustices the Earth Charter is attempting to redress. Furthermore, Section 7 calls for societies to "adopt patterns of production, consumption and reproduction that safeguard the Earth's regenerative capacities, human rights and community well-being." This is further emphasized in Section 10's call to "Ensure that economic activities and institutions at all levels promote human development in an equitable and sustainable manner" (Earth Charter Commission, 2000, p. 2). Unfortunately, this language feeds into a dominant narrative grounded in the desirability of infinite economic growth, which has contributed to the conquering of land and the simultaneous

subjugation of marginalized peoples for production and exploitation. This type of colonialism is a basic principle of capitalist models (Davis, 2000). We believe this narrative runs counter to the goal of a sustainable human relationship with the Earth.

The Earth Charter's approach is largely consistent with current mainstream environmental education, or education for sustainable development (ESD), which offers an anthropocentric world view in which humans are placed at the centre, separate from the environment and other living creatures. Kopnina (2012) argues ESD's near-exclusive focus on human needs risks sidelining ecological concerns that affect the existence of other species, but which may have little or no direct impact on human welfare. We agree with Kopnina on this specific point, although we wish to stress some misgivings about her overall approach. For example, later in the same paper Kopnina appears to endorse (or at least does not challenge) Paul Watson of the Sea Shepherd Conservation Society's position that "speciesism is a far more serious issue" than social issues like racism and sexism. After quoting Watson, Kopnina further emphasizes his argument by paraphrasing it, stating that "human rights are taken for granted, while the rights of other species are reduced to 'protection of natural resources'" (p. 707). This appears to downplay the degree to which oppressive systems like racism and sexism are so deeply rooted in our society that the need to challenge their many manifestations is in fact not taken for granted by large segments of the population (Adams et al., 2018, p. 65-68 and p. 323-329). We agree that speciesism is important, but we would put it on more of an *equal* footing with racism and sexism (Olson, 2019) and would challenge the arguments stating that speciesism is a "far more serious" issue. Despite this major caveat, we agree with Kopnina that ESD as it is currently practiced has shifted the emphasis in environmental education away from non-human species and ecosystems and toward unlimited economic growth. How can the environment exist as more than a commodity in this anthropocentric world view, which the Earth Charter upholds? ESD and environmental education more generally must recognize that all living things have intrinsic value, not just the economic value ascribed to them by humans.

An anthropocentric world view precludes humanity's collective ability to understand the true implications of how our current practices directly affect the world in which we live. This is especially problematic given that we have entered the Anthropocene. Human beings, especially dominant elites, have the potential to alter the landscape so that the Earth may become uninhabitable, and those affected first and hardest will be marginalized populations who currently lack the power and resources to shield themselves from environmental degradation and collapse (Pellow & Brulle, 2005). The emergence of the Anthropocene poses foundational questions for education across the globe. Laird (2017) argues, "nurturing the will to change our ways of living so that we can maintain or enhance Earth's habitability . . . [may] be the most difficult

educational challenge that the Anthropocene poses" (p. 269). The Earth Charter puts forth a framework that assumes consumption-based capitalist lifestyles will largely be maintained in their current form and calls for "deficit" lifestyles to be improved. This framework resides firmly in the world view of capitalist anthropocentrism and represents a major shortcoming of the document. As Bosselman (2004) suggests,

> The shift from the welfare of human beings to the welfare of human and other living beings may not be dramatic in practical terms, but does indicate a significant shift of paradigms. The Earth looks different if we are solely concerned with ourselves (anthropocentrism), on the one hand, or if we are seeing ourselves as part of a wider community of life (biocentrism), nature (ecocentrism) or the universe (holism). Only in a non-anthropocentric perspective do we accept moral responsibility towards Earth and its future; only then we can truly speak of an "Earth" Charter. (p. 68)

To be an effective educational tool that promotes the well-being of all humans and non-human species across the globe, the Earth Charter would have to critically analyze the dominant anthropocentric, capitalist world view it currently promotes (Bosselman, 2004). In failing to do this, the document misses a major opportunity and does a disservice to our students.

Conclusion

We have entered the Anthropocene, and with this epoch we must focus on inclusive terminology, culturally relevant pedagogy, and the development of an ecocentric world view. We believe that human–environmental–ethical considerations should help reorganize and reset the field of environmental education and should not be complicit in upholding capitalist orientations. Amidst the rampant inequality and environmental degradation caused by capitalism with which our students are confronted, we want young people to read educational documents that are fully alive and relevant to the problems of our time.

A special issue of the *Journal of Education for Sustainable Development* (Volume 4: Issue 2) was published in 2010. In this issue, Rick Clugston, the introductory author and Executive Director of Earth Charter US, synthesized much of the arguments put forth in support of the Earth Charter as an educational document. He ended his synthesis with a statement of endorsement that articulates the aspirations of the Earth Charter:

> The dream of creating a just, sustainable and peaceful future is perennial, and the way forward to realise it has been articulated in a rich diversity of cultural and historical contexts. The Earth Charter is an expression of this dream, articulated in our increasingly globalised world. Many are translating this dream into action through educational approaches that increase our ability to respect and care for the community of life and Earth, our common home. (Clugston, 2010, p. 165).

We hold this same aspiration and think that the Earth Charter must be updated to reflect the ways in which we are teaching, thinking, and imagining our future.

Educational progress is not easily discernible. As environmental crises continue to mount, it is imperative to question the ways in which we teach our young people about the world in which we live. We do not mean to be discouraging by questioning the value of the Earth Charter. Instead, we are aiming to create an atmosphere for critically examining the possibilities of environmental education for a just and thriving future, particularly as the field struggles with standardization and legitimation.

International declarations on world issues today look different from when documents such as the Earth Charter and the Tbilisi Declaration were written (UNESCO/UNEP, 1977). We see countries focussing on addressing specific issues such as carbon emissions, through international bodies such as the Intergovernmental Panel on Climate Change (IPCC- History, n.d.). One option that might foster critical environmental education would be to abandon all-encompassing global documents, such as the Earth Charter, which easily fall into the trap of promoting dominant language, attitudes, practices, and essentialization. However, to us this feels counterproductive. We believe that the collective, international action and intent of creating the Earth Charter is noble, yet it falls short in the ways explained above. In the Anthropocene, it is clear that this document must either find new life through its radical revision or perhaps be renewed as a Social Justice Charter for Earth. We propose that a Social Justice Charter for Earth would centre Environmental Justice. Such a charter would use an eco-justice and culturally relevant pedagogy and recognize the intersectional and overlapping nature of social and natural worlds on Earth.

We have an opportunity for reframing and reorganizing outdated documents like the Earth Charter. With co-creative writing technology, we have the ability to create a world-wide collaboration process for a Social Justice Charter for Earth. This charter could include many diverse voices, be supported by international agencies, be grounded in pluralism, and highlight frameworks for environmental solutions that are inclusive, culturally relevant, and ecocentric. We can create something that both educators and students look to for direction and understanding. We have the space to find new ground as a result of the identity struggle of environmental education and that is a very hopeful place to be.

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Making Sense of Place: Place Anchors and Educational Potentials

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Abstract

Place is often seen as a location of meaning. But whose meaning fills the location? Who defines meaning? What kind of meaning do we seek? These questions inadvertently call on place-based education to reflect on the often-unexamined meaning of place prevailing in the field. This paper draws substantially on the work of critical feminist geographies and the author's own experience as a transient woman of colour to explore the diverse thoughts on and framing of place and to reveal how place is conceived, perceived, and lived through interrelated place anchors. *The paper proposes this framework of place anchors in hopes that educators will have an entry point to critically reflect on and understand place as they/we engage in various place pedagogies.*

Résumé

On considère souvent les lieux comme chargés de sens. Mais pour qui le sont-ils? Qui définit ce sens? Quel sens y cherche-t-on en particulier? Ces questions nous portent incidemment à pousser notre réflexion sur le sens à donner à la notion de « lieu » en éducation axée sur le lieu, une dimension souvent oubliée. Dans cet article, l'auteure, éclairée surtout par les travaux de géographes féministes critiques et par sa propre expérience de migrante et femme de couleur, explore différentes réflexions et conceptions concernant la notion de « lieu ». Elle explique également comment un lieu est créé, perçu et vécu à travers des points d'ancrage interreliés. Ce concept de points d'ancrage est proposé en vue d'offrir aux éducateurs un point de départ pour entreprendre une réflexion critique et mieux comprendre l'idée de « lieu » lorsqu'ils recourent à diverses approches pédagogiques axées sur le lieu.

Keywords: place, place-based education, place anchors, critical feminist geography, decolonization

Mots-clés : lieu, éducation axée sur le lieu, points d'ancrage, géographie féministe critique, décolonisation

> "I have been working to change the way I speak and write, to incorporate in the manner of telling a sense of place, of not just who I am in the present but where I am coming from, the multiple voices within me. I have confronted silence, inarticulateness. When I say, then, that these words emerge from suffering, I refer to that personal struggle to name that location from which I come to voice—that space of my theorizing."
>
> bell hooks, *Yearning*, 1990

> "Just as none of us is beyond geography, none of us is completely free from the struggle over geography."
>
> — Edward Said, *Culture and Imperialism*, 1993

Introduction

Reflecting back, I seem to have searched for "place" my whole life as a transient body drifting from place to place. I struggle to "name the location from which I come to … the multiple voices within me" (hooks, 1990, p. 146). Like bell hooks, I continue to face and learn from the silences and inarticulateness of my sense of place. The presence of my deeply held emplaced experiences became clear to me when I returned to Belize, where I spent my teenage years and young adulthood, for the first time after living in Canada for two years. Waking up to the sunrise, I put on a tank top and shorts and roamed the sandy beach while shooing the iguanas, comfortably covered in sweat. When I came across a pier, I jumped without hesitation, knowing feelingly I would immediately float back on the salty Caribbean Sea.

Living in Belize is not always sunshine. I faced constant discrimination and potential harassment for being an East Asian woman, who is also privileged in many ways. But, I am used to that positionality—everything is so upfront, so "in your face" (sometimes literally). I know which neighbourhoods are not suitable for a *chiney gial* but also where I can get homemade Taiwanese noodles. I know which plants might kill me and which can get rid of diarrhea. At the same time, in returning, I also realized how unfamiliar I am with this place. As an immigrant, Belize was what my mother called "a jumping board" to the "American Dream." We had never consciously cultivated a connection with the place.

Therefore, in order to speak about "place," I must also articulate "placelessness"—not only in the sense of increased globalization, immigration, or ecological sadness, but also in terms of being "out of place" (McKittrick, 2006, p. xv), one of being on the "margins" (hooks, 1990; Smith, 1999). Here, I reject the "marginality … imposed by oppressive structures" (p. 153) and assert that the margins are a "place" of resistance and "radical openness and possibility" (p. 153). I speak both from the margins and from multiple levels of privileged status, such as mobility, academia, settler, and class.

I hope by the end of this paper we will come to realize that when we invoke "place," we also awaken a muddy and interwoven collection of phenomena, power, and deeply lived relations and experiences (Reid, 2008). In this time of social and ecological unrest enabled by the rapid globalization of Western hegemony, capitalism, and colonial mindsets, it is even more imperative for us to pay attention to "place" and its divergent meanings, implications, and educational opportunities. In her examination of globalization and uneven development through the perspectives of youths from Eastern Sudan and Harlem, Cindi Katz (2004) observes that global changes might be seen to have

homogenizing effects but the consequences are place-specific. Paying attention to place, to "situated knowledge" (Harraway, 1988), means rejecting the myth of the "single story" (Adichie, 2009).

"Place" is a tricky word. In Mandarin, we describe a word like "place" as *Wang wen zheng yi* (望文生義)—the meaning of the word emerges as you look upon it. It seems to speak for itself. This makes talking about place difficult. On one hand, we all have a sense of what place is, but on the other hand, we are confined by the feeling associated with this "common sense." Geographer Tim Cresswell (2004) points out that a common definition of place is "a meaningful location" (p.7)—a location full of meanings. But whose meaning fills the location? Who defines the meaning? What kind of meaning are we seeking? If there is no meaning for me, does the place cease to be a place? These questions inadvertently point out the trouble with place and place-based movements, and in this case, they specifically call on place-based education to reflect more deeply on the meaning of place.

Over the past two decades, place has garnered increased attention in education (see Smith, 2002; Sobel, 2004; Gruenewald & Smith, 2014; Wattchow & Brown, 2011; Simpson, 2014; Tuck et al., 2014). Place-based education has become an educational movement that responds to "the isolation of schooling's discourses and practices from the living world outside the increasingly placeless institution of schooling" (Gruenewald, 2003, p. 620). As a pedagogical and curricular approach, place-based education centres the local community and provides an open exploration of current social and ecological issues (Sugg, 2013). It can take on a variety of different forms (Sobel, 2004; Smith, 2002). A common thread in the theorizations of place-based education has been to address the alienating nature of a highly globalized and increasingly homogenized world that dilutes relationships to place or the "commons" (Theobald, 1997; Bowers, 2006). However, the sole focus on local community has been critiqued as forwarding a nostalgic and falsely positive notion of community (Nespor, 2008) and promoting a form of isolationism that prevents a critical understanding of larger regional and global issues (Derby et al., 2015; Nespor, 2008; Webber, 2017).

David Greunewald (now known as Greenwood) (2003) synthesizes the fields of critical pedagogy and place-based education, calling for a "critical pedagogy of place." In doing this, he recognizes that social justice and ecological justice are interconnected. Greunewald (2003) posits, "…the two most significant intersections between these traditions are place-based education's call for localized social action and critical pedagogy's recognition that experience…has a geographical dimension" (p. 317). In critical pedagogy of place, Greunewald proposes that decolonization and reinhabitation are two interrelated objectives for the purpose of connecting local and place-based experiences to the larger social, cultural, and ecological scene. Greunewald's critical pedagogy of place has stirred up different voices contesting and reaffirming his concepts surrounding issues

of de/colonization, reconciliation, revitalization, and reinhabitation of place.[1]

Although critical pedagogy of place has provided a ground to address the interconnected issues of environment, social justice, and education, many Indigenous scholars have critiqued the use of the word decolonization as a metaphor (Tuck & Yang, 2012; Tuck et al., 2014). Eve Tuck and K. Wayne Yang (2012) contend that there has been a trend in education to replace social justice discourse with decolonization discourse without acknowledging that decolonization wants something different than other forms of justice. When decolonization is used as a metaphor, it undermines the possibility of decolonial work. It also re-centres whiteness and settler colonialism, which requires a specific set of relations to place. As we engage with place in our pedagogy, we need to pay special attention to the "colonial apparatus that is assembled to re/order the relationships between particular peoples, lands, the natural world, and civilization" (Tuck & Yang, 2012, p. 21). Without the attempt to acknowledge the colonial past and present of particular places, "place-based and broader environmental education literature has replicated some of the very problematic assumptions and imperatives of settler colonialism" (Tuck et al., 2014, p. 15). Therefore, it is crucial to bring in the theorizations and perspectives of land pedagogies as they offer important parallels and critiques to place-based education (Tuck et al., 2014, Paperson, 2014; Bang et al., 2014; Simpson, 2014).

It is clear that there are contested conceptualizations and framings of place that are often shaped by different situatedness and positionalities. Although centring place in education poses a challenge to the current system of schooling—one which acts as an apparatus of dominant oppressive systems, without critical reflection on the meaning and existing conceptualizations of place, educators run the risk of turning place into another oppressive tool. In this paper, I follow the critical and feminist traditions as I explore the diverse thought and framing of place through various trajectories inside and outside of education to reveal how place is conceived, perceived, and lived through interrelated *place anchors* that define and are defined by our multiple situatedness, understandings, and relationships to place. My hope is that this framework of place anchors will open a conversation and provide educators entry points to reflect and engage with place and place pedagogies critically.

Place Anchors

Sitting on the freshly-cut grass, the hot June sun shines on my back like a warm hug. Settled under a luscious evergreen in "Clinton Park" on the unceded traditional land of the xʷməθkʷəy̓əm (Musqueam), Sel̓íl,weta?/Selilwitulh (Tsleil-Waututh), and Skwxwú7mesh Úxwumixw (Squamish) peoples, I hear birds chirping amidst the trees, groups of flies intertwined in each other's flight tracks, young folks challenging each other in basketball games, and children immersing themselves in worlds of imagination. To my right, a group of Chinese

Da Ma dance in unison to retro Chinese pop songs that are all too familiar to me. I can't help but remember dancing with my *Nai-Nai*, learning all the songs that were not completely appropriate for a 7-year-old at the time. I notice that a South Asian lady follows the group of *Da Ma*, remaining in the back. In the midst of the Chinese tunes, I hear a mandolin playing. Turning around, I watch as two South Asian kids sheepishly approach the mandolin player. As the player serenades them, they struggle to teach him their names. All of a sudden, a small furball of a puppy darts through my legs. Swooping in just before the puppy releases its bladder, its owner apologizes and whisks it away.

Just being in the park for an afternoon, this place seems to give me an informal introduction about itself—its colonial past and present, immigration and mobility, exclusion and inclusion, relationships to the other-than-human, and the provoked imaginations and memories. As Philosopher Edward Casey (2009a) explains, "Place is integral to the everyday life-world" (p. xxi). It is not only the "concrete basis of location, inhabitation, and orientation" (Casey, 2009a, p. xxi), but it is also made up of the social, cultural, historical, political, and ecological relations that humans and the more-than-human bring with them.

The following sections will discuss in-depth five distinct place anchors, namely space, land, mobility, power, and memory. They are what situate us in the intersecting identities of place, telling us more about ourselves and the world we inhabit. It is important not to equate "anchoring" to "belonging" or permanence. To be anchored in a place does not always mean belonging, but these anchors may help us understand how our relationship to place and our experiences and perceptions can be enabled, shaped, and/or limited. One should note that these anchors do not exist as discrete fragments. In fact, they exist and work contingently in tandem.

In each section, I hope to show that the anchors are necessary elements to be examined, understood, and explored in order to look beyond the normative or established notion of a place. These anchors can act as channels to the margin and the nuanced voices within it. Each section will highlight examples from activists, writers, and scholars of colour, all from different geographical locations and backgrounds, on how they themselves experience and are empowered by their own particular situatedness. Moreover, this list of place anchors is by no means exhaustive. Yet, I believe this preliminary list offers important considerations for our historical moment. Also, on a personal level, what I present here represents a predisposition I have as I try to make sense of my own relationship to place.

Place Anchor #1: Space

Grasping the relationship between space and place is quite a complex task. Traditionally in the social sciences and humanities, place has been relegated to the background (Basso, 1996; Casey, 2009a; Cresswell, 2004; Tuck & McKenzie, 2015). Edward Casey (2009a) points out, "Philosophers have acted … as if place were a mere annex of space or something subordinate to time or history"

(p. xxi). This "temporocentrist" reduction creates an illusion that there is only one linear narrative and that this is the trajectory all must follow. Challenging this view comes with a wave of new critical inquiry on place and space and its relation to social relations and meaning making—a spatial turn that has made a splash in various areas (Tuck & McKenzie, 2015; Casey, 1993; Soja, 2010). "At the heart of this turn has been a recognition of the formative presence of place in people's lives and thoughts" (Casey, 1993, p.xxi) and a "diffusion of critical spatial thinking" (Soja, 2010, p. 13) that probes feminist geographer Doreen Massey's questions: "What if we refuse to convene space into time? What if we open up the imagination of the single narrative to give space (literally) for a multiplicity of trajectories?" (1994, p. 5).

Space, conventionally, is thought of as a more abstract concept than place (Cresswell, 2004). Human geographer Yi-Fu Tuan equates space to movement and place to "pause" within the flow of movements (Tuan, 1977). However, this dichotomization of space and place presents a danger of reducing the dynamic and complex interconnection between the two and overlooks the never-ending, power-laced process that is spatialization (Massey, 1994). If space is only imagined as "something to be crossed and maybe conquered … [this] can lead us to conceive of other places, peoples, cultures simply as phenomena 'on' this surface … deprived of histories" (Massey, 2005, p. 4). Therefore, place is paradoxically a pause and simultaneously an ever-changing process. To consider place in this way, I now turn to critical and feminist geographies.

Massey explains that one result of modernity is the apparent separation of space and place. Therefore, instead of holding onto the view of place as stagnant, it is imperative to "rethink the unity of space and place in different terms, thereby conceptually confronting in a constructive way this changed state of the world" (p. 13). For Massey, space must be conceptualized with time, in "space-time" (p. 3). Space is not a completely independent entity but is "constructed out of social relations: that what is at issue is not social phenomena in space but both social phenomena and space as constituted out of social relations, that the spatial is social relations 'stretched out'" (p. 4). As social relations are complex and dynamic, space-time as a composition of social relations is inherently dynamic and deeply lived. As a result, "the spatial organization of society, in other words, is integral to the production of the social, and not merely its result. It is fully implicated in both history and politics" (p. 4).

Similarly, Henri Lefebvre (1991) argues that space is not a *tabula rasa*. Rather, space is a "social morphology" that is both produced by and productive of social interaction and lived experience (Lefebvre, 1991; Ford, 2017). In this theorization, through the production and productivity of space, Lefebvre aims to unite its physical, mental, and social aspects (p. 11–12). In doing so, he demonstrates multiple trajectories of how space is conceived, and he contends that it is necessary to rethink our conception of space and our relationship to it as lived, practiced, and inhabited. He warns:

> To picture space as a "frame" or container into which nothing can be put unless it is smaller than the recipient, and to imagine that this container has no other purpose than to preserve what has been put in it—this is probably the initial error. But is it error, or is it ideology? The latter, more than likely. If so, who promotes it? Who exploits it? And why and how do they do so? (p. 94)

Building on this, Edward Soja (1996, 1999) develops "trialectics of spatiality"[2] to define what he calls "thirdspace." Thirdspace rejects the dualism of conceived (material) and perceived (mental) space, or what Soja refers to as firstspace and secondspace, in order to enter the lived space. He argues that thirdspace (lived space) is integral to the trialectics of spatiality, and that this truly accounts for the production and experience of space, serving as a meeting place for fostering collective political action.

bell hooks (2009) expands our understanding of thirdspace by sharing her own lived experiences as a black woman in the United States. Her stories are imbued with deeply emplaced experiences entangled with struggles, negotiations, celebrations, and radical political openings that deal with intersecting axes of oppression. For her, "Spaces can be real and imagined. Spaces can tell stories and unfold histories. Spaces can be interrupted, appropriated, and transformed through artistic and literary practice.… The appropriation and use of space are political acts" (p. 152–153). Her essay, "A Place the Soul Can Rest" (p. 143–152), presents a demonstration of thirdspace. In it, she describes the importance of porches to black women living in the South. The porch is a place of shelter from patriarchy and a place signifying living without shame in the segregated South, where racism works to make black people into objects. Gathering on the porch, the women care for and celebrate each other and continue to resist the dehumanizing impact of racism and sexism.

Understanding space as lived and formed out of interwoven relationships is useful not only because it gives a radical opening to marginalized voices and positionalities but also because it situates one's relationship to space and place in the profoundly embodied and emotional. In this way, educators can challenge the predominant conceptualization of place and look for meaning in spaces that are often overlooked. If space is seen as "a simultaneity of stories-so-far," then place becomes "collections of those stories, articulations within wider power-geometries of space" (Massey, 2005, p. 130). All the intersecting as well as the fragmented and disjointed characteristics add to the specificity of place.

Place Anchor #2: Land

As we journey deeper into place, I should clarify that when I say place, I do not mean only that which is situated in the abstraction of sociality but also that which is anchored in the physical and tangible *land*. Before venturing forth in our discussion of land as a place anchor, we must first recognize that to understand the relationship between place and land, it is crucial to take up the project

of decolonization (Smith, 2008 Tuck & McKenzie, 2015). For me, decolonization concerns multiple positionalities from the particular historicities and perspectives of Indigenous Peoples and people of colour. Decolonization is an active move away from the settler colonialism of nations such as Canada, the United States, and Australia, to name a few. It is also a rejection of colonialism as a mindset of globalization and Western hegemony.

Land is at the centre of the colonial narrative as *terra nullius* that is always up for grabs. La Paperson (2014) writes:

> Land is a predominant concern in settler colonialism, and thus, people are arranged—raced, classed, gendered, sexualized, dis/abled, il/legalized—into triadic relations to land: the settler whose power lies in shaping the land into his wealth, the Indigenous inhabitant whose claim to land must be extinguished, and the chattel slave who must be kept landless. (p. 116)

It is a complex and unsettling task to peel through the layers of the "colonialist consciousness" (Grande, 2004, p. 69); however, it is absolutely necessary as it is entangled with our understanding of place and land. I want to recognize that Indigenous perspectives need to be at the centre of the decolonial imagination. Simultaneously, this imagination must be informed by a "cartography of struggle" (Mohanty, 2003)[4] made up of subaltern voices. Here, I say decolonial "imagination" not because it is somehow "unreal" but rather because, borrowing from Mohanty (2003), the "imagined" suggests "potential alliances and collaborations across divisive boundaries, and community … a deep commitment to 'horizontal comradeship'" (p. 46)—it means breaking the borders of the Western colonial logic and enabling cross-struggle solidarity. Without taking this into account, our projects of decolonization are merely "metaphors" (Tuck & Yang, 2012) that run the danger of recentring whiteness and settler futurity (Tuck & Yang, 2012). Therefore, to talk about place, rather a decolonizing perspective of place, we must situate ourselves in the concrete understanding of the land.

Marking the differences between Western conceptualizations of place and Indigenous understandings of land, Eve Tuck and Marcia McKenzie (2015), writing alongside perspectives of Indigenous scholars, explain that land refers not to only its materiality but also to the relational, spiritual, intellectual, and emotional (p. 57). Therefore, land is "instructive" (Basso, 1996) in that it holds personal and intergenerational memory. Furthermore, a land-based paradigm also indicates a move away from the anthropocentric notion of place, which centres the individual human, and toward a prioritization of land that centres the natural whole—"Land is both people and place" (Paperson, 2014, p. 124). One should note, however, that Indigenous perspectives and relationships to land are diverse and cannot be generalized (Cajete, 1994; Lowan, 2009; Tuck et al., 2014).

Martinican scholar Eduardo Glissant (1989) demonstrates the inseparable relationship between people, place, and land within the struggle of the Caribbean

peoples against the insatiable hunger of colonialism. He remarks, "one of the most pernicious forms of colonization [is] the one by means of which a community becomes assimilated … making strangers out of people who are not" (p. 5). But through "poetics of landscape" (McKittrick, 2006), Glissant brings geographic expressions into life: Although within the landscape there is the painful past and present reality of colonialism and continuous assimilation, there is also incessant resistance. In this way "our landscape," he writes, "is its own monument: its meaning can only be traced on the underside" (p. 11).

Anchoring place in land anchors us in the lived. Land is not just a site upon which history is made, it is the existence of both human and the more-than-human. It is a "bearer of memory" and a "resistance to a conception of fixed space" (Paperson, 2014, p. 127). Pedagogically, centring land unseats the teacher as the sole knowledge holder and necessitates teaching on respect, responsibilities, and flourishing of all living beings.

Place Anchor #3: Mobility

We live in a world of ever-increasing connection across distances. This acceleration of "time-space compression" (Massey, 1999) has led to what some have perceived as the "erosion of place" (Cresswell, 2004, p. 43). Local places gradually detach from what is seen as the particularity of locality. The meanings that provide a sense of attachment to places are being erased.

Human geographer Edward Relph (1976) warned of the danger of the loss of place well before today's global homogenization. He argues that "mass culture" is marked by a creeping "placelessness" due to growing mobility, leading to a lack of authentic relationships to place and to the risk of becoming an "existential insider" (Cresswell, 2004, p. 44). Relph stresses "authenticity," following Heidegger's concept of "dwelling." Seen as a form of existence, "authenticity consists of a complete awareness and acceptance of responsibility for your own existence" (Relph, 1976, p. 78). To have an authentic relationship to place, one needs to be inside it. To identify more strongly with a place is to be more "profoundly inside" (p. 49).

Similarly, anthropologist Marc Augé (1995) contends that one of the extreme changes caused by "supermodernity" is the replacement of place by "non-places," locations "surrendered to solitary individuality, to the fleeting, the temporary and ephemeral" (p. 78). These are places of transience dominated by mobility. In these, flows of movement and transactions are made among anonymous individuals, often reduced to an "identification number'—a PIN or passport number. An obvious example is the airport. Such a location is an "unrooted place marked by mobility and travel" (Cresswell, 2004, p. 46). Travellers interact with airline staff and customs officials who do not see them as people but as an "anonymized flow-through" (McDowell, 1999, p. 6). Geographer, Linda McDowell (1999), takes up the idea of "non-place" and ponders that "in non-places, therefore, gendered attributes and perhaps even our sexed

bodies become unimportant, opening up a paradoxical space of control and liberation" (p. 6).

However, women and people of colour have constantly been victims of racial profiling and denial of access—this has been the case since before Trump's refugee ban. In "non-places," people do not cease to be "sexed bodies" and racialized beings. To suggest that one might be able to peel away the categorizations imposed by a system of control in a "non-place" is to commit to the reductionist "white feminist" mindset, thus revealing the danger of assigning place the status of "non-place." It is important when we take up the issue of "place" that we use a lens of intersectionality and hold that our intersectional identities intermingle with place and cannot be separated. There is a danger in seeing increased mobility as merely eating up places and spitting out non-places with no consideration of how global flows of people and capital are shaped by local histories of exclusion and marginalization. Place is created mutually by dynamics of race, gender, class, sexuality, and ability. Dolores Hayden posits, "speaking critically of bad places is more effective than dismissing them as places" (Hayden, 1997, p. 18, as cited in Nespor, 2008, p. 481). This is not to dismiss Relph and Augé's critiques but rather to point out the danger of reducing place to a dichotomy of place and non-place/placelessness. This binary "turns complex, changing relations into discrete states, chops gradients into well-bounded regions, and obscures the critical questions of how places are constituted and connected to one another" (Nespor, 2008, p. 481).

Massey (1994) probes the possibility of a different sense of place, one she calls "a global sense of place," proposing a conceptualization of place as open, fluid, and interconnected. Asserting that mobility is an integral part of place, Massey challenges the seemingly neutral meaning of place that tends to get clung onto in the era of time-space compression, of rapid globalization. Time-space compression describes a speeding and spreading of movement, communication, and sociality, and it can be argued that local communities and places are increasingly "homogenizing" or arguably, for some places, "diversifying," generating feelings of panic and vulnerability over losing a sense of locality. Consequently, this feeling of vulnerability has led to seeking for a sense of place that is necessarily reactionary (Massey, 1994, p. 147). On one hand, people turn to a reductionist view of history to establish a "rootedness," based on the "authentic" (using Relph's word) meaning of place, in order to secure a strong sense of place and locality of fixed identity. In this reading, place becomes exclusive, creating "us" and "them." On the other hand, many reject the idea of place and spatiality. In their view, place represents an escape from the "great" progress of the world. In both cases, place and space are seen as static, fixed, and reactionary, hierarchizing time as flow and progress.

Massey strongly condemns this notion as it assigns place a single essentialized identity, asserting that place derives from internalized and exclusionary origins. This understanding easily leads to a "problematical sense of place, from

reactionary nationalism, to competitive localisms, to introverted obsession with 'heritage'" (p. 151). Instead, Massey argues that what gives place its uniqueness is "the fact that it is constructed out of a particular constellation of social relations.... It is, indeed, a meeting place" (p. 154). Therefore, place can be imagined as different moments in an interwoven net of social relations. And this is what allows a sense of place that is "extroverted, which includes a consciousness of its links with the wider world, which integrates in a positive way the global and the local" (p. 154).

Nevertheless, with this view of place as "routes rather than roots" (Cresswell, 2004, p. 53) comes the question of what rootedness and authenticity are, especially for those who experience the global flow of movement as an oppressive force. Here I challenge the fluid and open view of place advocated by Massey. Who can afford to embrace this fluidity and uprootedness? Whose sense of or relationship to place is marginalized and denied? To engage in this important discussion, I will problematize the idea of mobility and its entanglements with privilege. In fact, Massey herself has done such a reflection. She reveals that the current characterization of time-space compression represents a Western and colonial perspective. Through the colonial apparatus, hierarchized power is integral to the movement and flow of people. It is crucial that when we think of mobility in this era of time-space compression, we examine the intricately layered power and privilege present in one's ability to move or not move around places. In considering this question, we should take into account theorizations from various situated subjectivities. bell hooks (2009) uses "journeying" to represent mobility and to challenge "the hegemony of one experience of travel" (p. 101). She urges that there is a need to theorize divergent ways of "journeying" that is "associated with different headings—rites of passage, immigration, enforced migration, relocation, enslavement, and homelessness" (p. 100)—in order to understand "politics of location" (p. 100). In many cases, for people of colour "to travel is to encounter the terrorizing force of white supremacy" (p. 101).

More, queer travel writer and activist Bani Amor (2017) points out that the mainstream understanding (obsession) of travelling/tourism is a form of colonial and patriarchal destruction through continuous exploitation and exotification of people and women of colour's bodies, cultures, and lands. Western travel narrative is born of European colonization (Lipsitz, 2011). In this narrative, the place the "traveller" goes tends to be gendered and seen as "virgin" or "wild" (namely, Indigenous), to be "explored" and "conquered." The traveller then is the brave "male do-er" while the land and its people are passive subjects to be swept away.

The devastating effect of exploitive tourism on women of colour's bodies and lands has been the displacement of local people as well as tremendous damage on local ecosystems. For instance, in Belize one can observe the slow death of the world's second largest coral reef. In coastal areas, such as Caye

Caulker, where local industry has been historically based on fisheries, the loss of livelihood and displacement has led many to homelessness, alcoholism, or exploitative labour in businesses owned by Western and/or wealthy investors.

In sum, mobility or disparate ways of journeying is fundamental to place and the construction of place. It is an essential anchor to the understanding of place as not stagnant but ever-changing. In the face of rapid flows of people, capital, and the more-than-human, places are shaped by constant social, cultural, and ecological exchanges, as well as by global and local systems of power that lead to continuous exploitation, marginalization, and colonization. It is important to acknowledge that "the production of space [and place] is caught up in, but does not guarantee, longstanding geographic frameworks that materially and philosophically arrange the planet according to a seemingly stable white, heterosexual, classed vantage point" (McKittrick, 2006, p. xv), rendering people of colour, LGBTQ2S, the differently abled, and the other-than-human as "out of place."

Place Anchor #4: Power / Out-of-placeness

Power plays an important part in the construction of place, often manifesting in an emplaced form. Power and place are co-constructed, enforcing one another. Prevailing conceptualizations of place and many current spatial distributions naturalize unbalanced power relations. Scholars in many fields have theorized the relationship between place and power. Here I will mention just a few, specifically drawing on critical theory, feminist and feminist of colour geography, and Indigenous theories. But more importantly I will explore the axis of "out-of-placeness" as an important place anchor for us to understand the spatial manifestation of power.

David Harvey (2007) sees the process of unbalanced spatial organization as "accumulation by dispossession" (p. 159). In his analysis, capitalism, now in the form of neoliberalism, requires the displacement and placelessness of many for the accumulation of others (capitalists). This includes, for example: the continuous exploitation, commodification, and privatization of land; the displacement of rural populations into cramped sweatshops; the creation of private property by appropriating more collective and communal resources; and the suppression of rights to the commons, just to name a few (Harvey, 2007, p. 159).

Eve Tuck (2013) points out that the current oppressive paradigm of neoliberalism is the "latest configuration of colonial imperialism" (p. 325). In fact, Indigenous scholars and scholars of colour have long pointed out that the colonial way of (re)naming and mapping of places not only dispossesses and perpetuates landlessness for Indigenous people but also appropriates and claims ownership of Indigenous knowledge, fortifying colonial logic (Tuck & McKenzie, 2015; Smith, 1999; Glissant, 1989; Lipsitz, 2011). Linda Tuhiwai Smith (1999) reveals this logic through its vocabulary. She argues that the spatial organization of colonialism is assembled around three concepts—the line, the centre, and the

outside. The line maps territories, sets up boundaries, and establishes parameters of colonial power. The centre guides the direction of that system of power. The outside signifies the dispossessed, the powerless, and the non-existential (p. 53).

Moreover, Katherine McKittrick shows that dominant geographic structures are organized around hierarchies of race, gender, and class and are repeatedly reinforced by a process of spatializing difference. This spatial arrangement of difference naturalizes identity and place, assigning non-dominant groups to where they "naturally" belong. The spatialization of difference is coupled with an ideological view of place as neutral, knowable, and outside of critique. Through this neutral narrative, the displacement of difference rationalizes spatial boundaries that see many bodies as "out of place" (p. xv). McKitrrick suggests that "geographies of domination be understood as the displacement of difference" (p. xv). But, it should be understood that "this displacement of difference does not describe human hierarchies but rather demonstrates the ways in which these hierarchies are critical categories of social and spatial struggle" (p. xv). Since the displacement of difference often manifests in being "out of place," paying attention to this "out-of-placeness" can give us clues into existing oppressions and how those who assume the position of "out of place" negotiate their identities and lived experiences. We should ask: Who is "out of place"? To launch us into critical reflection about our relation to the natural world, such a consideration should include the more-than-human others, such as "unruly" urban raccoons (Pacini-Ketchabaw & Nxumalo, 2015).

To enter into the world of "out-of-placeness" and counter-narrate colonial spatial logic, let us consider Mohanty's (2003) notion of "cartographies of struggle." These cartographies intend to defy the singular and divisive borders of colonial mapping and containment of power organized around race, class, gender, sexuality, and ability by attending to the intersecting multiplicity of oppression, power, and resistance of the marginalized, thus providing a "complex ground for the emergence and consolidation of Third World[2] women's feminist politics" (p. 44). Building upon Benedict Anderson (1983), Monhanty's concept is a powerful re-mapping and re-grounding of "imagined communities of women with divergent histories and social locations, woven together by the political thread of opposition to forms of domination that are not only pervasive but also systemic" (p. 47). McKitrrick demonstrates cartographies of struggle by drawing out black feminist geography and spatial imaginaries. She disallows the separation of power, identity, and place to renegotiate and challenge existing geographic arrangements. McKittrick proclaims:

> Geographic domination is a powerful process. However, if we pursue the links between practices of domination and black women's experiences in place, we see that black women's geographies are lived, possible, and imaginable. Black women's geographies open up a meaningful way to approach both the power and possibilities of geographic inquiry. (2006, p. xii)

This is reclamation of the "margin," of "out-of-placeness," as a site of abundance, resistance, and solidarity (hooks, 2000). To invoke this, one might need to travel to the past—into personal or collective memories that offer possibilities of place. As educators, it is important to pay attention to how power manifests in our place-based pedagogies and honour students', and our own, experiences of "out-of-placeness." Articulating those experiences many times pushes us to question how a place is organized, understood, and remembered.

Place Anchor #5: Memory

Place evokes and creates memory, and memory influences how one constructs and experiences place. As mentioned, notions of memory, history, and heritage have been essential parts of creating a sense of place for many, and they continue to be at the centre of the debate of a "global sense of place" (Massey, 1994). Here I do not equate memory to history or heritage but instead recognize memory's historicity. Memory is, as oral historian Lynn Abrams (2010) explains, "a process of remembering: the calling up of images, stories and emotions from our past life, ordering them, placing them within a narrative or story and then telling them in a way that is shaped at least in part by our social and cultural context" (p. 78). This process of remembering is often called into life by place's ability to bring the past into the present; some might even argue that memory is naturally place-oriented or place-supported (Casey, 2009b).

In fact, anthropologist Keith Basso emphasizes the importance of memory in the act of "place-making," or making of a "place-world" (Basso, 1996). The past is an instructive place that gives clues to where one has been and connects to "*what happened here*" (p. 4). Drawing on his many years of work with the Western Apache people, Basso emphasizes that within Indigenous world views, "the where of the event matters as much as the what and the consequences of the events themselves" (Tuck & McKenzie, 2015, p. 132). For Basso, place-making is a "universal tool of the historical imagination" (p. 5). It is profoundly human. However, the construction of a place-world is highly complex and allows an opening to understand diverse ways of being and relating to the world. Place-worlds are history with authority (p. 32). Basso puts,"…for what people make of their places is closely connected to what they make of themselves as members of society and inhabitants of the earth … place-making is a way of constructing the past, a venerable means of *doing* human history…." (p. 7).

Nevertheless, memory is not only personal; it lies in the heart of a collective and exists "in a symbiotic relationship with the public memorialization of the past" (Tuck & McKenzie, 2015, p. 110). Many places are intentionally or inexplicitly constructed as "sites of memory," where formal memories are constituted, negotiated, and rooted through their production (Sarmento, 2012; Cresswell, 2004). However, these sites of memory often serve to

commemorate one particular dominant history, adding to the making of a national identity while excluding perspectives of the marginalized.

Evidently, place is a contested zone of memories, but some are actively erased. The construction of memory in this case becomes a form of control that has led to "a deep silence which must be continually broken" (hooks, 2009, p. 176). In a panel discussing the role of Vancouver's Punjabi Market and Chinatown in the construction and erasure of civic memory, activist Puneet Singh explained that if one visits the neighbourhood of Kitsilano today, they find no trace of the once vibrant South Asian community there, and to mention it is often to solicit anger and denial amongst its predominantly white residents. Historic neighbourhoods such as the Punjabi Market and Chinatown in Vancouver, once designated for people of colour, are rapidly being gentrified and reconstructed. For people of colour, it is not only place of dwelling that is under threat but memory, and by extension existence (Singh et al., 2017).

Just as memory can be an apparatus of control in the production of place, it also can be a site of resistance (hooks, 2009). Following Foucault's (1980) notion of "counter-memory," hooks contends that the process of remembering is a practice of transgressing the dominant notion of history. She sees that history does not need to serve as a judgement of the past controlled by the present, but is a "counter-memory" that pushes against the dominant notion of "truth." Counter-memory can act as a source for renewed relationships to the past, and thus the present and future (hooks, 2009; Arac, 1986). It is through this potential of revisioning, rememory (Basso, 1996), and reinhabiting (Ahmed, 2017) that tapping into place-memory offers an empowering and counter-hegemonic sense of place. For Basso, the building and sharing of place-worlds provide a powerful means not only to travel through what has happened but also to explore how the past has been different for different positionalities (Basso, 1996).

Along with hooks, Sara Ahmed (2017) points out that "feminist work is often memory work" (p. 22) that allows us[5] to reinhabit our bodies and give ourselves permission to take up more space and stretch out into place (p. 30). However, it is important to point out that the work of invoking issues of space and place comes with pain and discomfort, as one "bear[s] the burden of memory … [to] willingly journey to places long uninhabited, searching the debris of history for traces of unforgettable, all knowledge of which has been supressed" (hooks, 2006, p. 98; also see hooks, 1990; McKittrick, 2006; Walcott, 2003; Ahmed, 2017). In exploring places where voices have long been silenced, hooks returns to the phrase used in the movement against racial apartheid in South Africa: "*our struggle is also a struggle of memory against forgetting*" (hooks, 1990, p. 147). In our place-based pedagogy, we must create space that allows one to reclaim the past, including legacies of pain and suffering in addition to the celebratory and the mundane.

Conclusion

It is easy to lose sight of place's intricateness and complexity because we are so immersed and entangled within it. Therefore, it is all the more important to foreground place in our pedagogical practices so we are not just learning about place, but with place. To be involved in this kind of cultural shift, one must be willing to assume what Foucault calls a "hyperactive pessimism," a commitment not only to constantly question the status quo but also to find ways of examining and adjusting educational and pedagogical practices while developing critical understanding (Blenkinsop, 2012). We must be able to critically assess whether our place pedagogy is reactionary or exclusive. We need to theorize further how systems of oppression around race, class, gender, sexuality, and ability influence, manifest, and produce educational spaces and places (Ford, 2017; Miller, 2017; Russel et al., 2013; Haluza-DeLay, 2013). Educators can find ways to legitimize attachments to different places; this might include giving students opportunities to highlight their own places, urban or otherwise. Educators can actively challenge narratives that centre one imagination of place. The task of decolonization requires the dismantling of naturalized values and ingrained attitudes and the centring of Indigenous leadership.

By exploring place through place anchors, we can begin to conceptualize place with the following considerations:

- Place is not static and fixed. It is dynamic and mobile in itself.
- Place is not neutral but entangled in complex social and power relations.
- Place is specific and situated in the lived. There are diverse ways of relating to place that might not even be described with the word "place."[6]
- Place holds deeply personal, cultural, and ecological memories.
- Place does not only exist in the abstract. It must be situated in the concrete. It holds its own agency and meanings beyond human understanding.

We should consider place anchors in terms of how they might limit the way educators approach students' diverse relationships to place, taking into account who is excluded in our understanding. Although beyond the scope of this paper, to further this discussion, we need to problematize conceptions of belonging and the making of home (Pratt, 1999; hooks, 1990; Massey, 1994), especially for diverse cultural and diasporic populations (Awan, 2017; Chawla & Jones, 2005). We also need to find ways to de-centre anthropocentric conceptualizations of place and ask what it means to learn *with* place. In this way, place has the potential to provide radical educational ground for us to re-examine and to reflect on our relationship with ourselves, other humans, and more-than-human others.

Notes

1 See *Environmental Education Research* Volume 14, 2008.

2 The trialectics of spatiality include the perceived space, conceived space, and the lived space that parallel Lefebvre's physical, mental, and social. See Soja, E. W. (1996). *Thirdspace: Expanding the geographical imagination*. Blackwell. P. 71

3 This will be discussed in more detail in the section entitled Place Anchor #4: Power/Out-of-Placeness.

4 Here Mohanty does not refer to the geographically bounded definition of the Third World, but those who are marginalized and disenfranchised by the global dominant system of oppression. It is through a "political link" (p. 46) that the women of the Third World are connected and come into community.

5 Here "we/us/our" refers to those who are marginalized under white supremacist patriarchy.

6 For example, the Taiwanese place/spatial imaginary alludes to the word *xiang tu* instead of *di fun* (the translation of place) to describe their/our situatedness. *Xiang tu* refers to *xiang*, the people, community, a township and *tu*, the soil and the land. *Xiang tu* is a united concept. It implies the interconnectedness of people and land and the non-generalizable nature of land. *Xiang tu* is not just an idea—it intricately involves people's emotional and sensorial experiences and relationships to their land, thus embodying the diverse and complex relationships between land and the people (Ho & Chang, forthcoming).

Notes on Contributor

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Body as Prism: Somatic Pedagogy in the Development of Embodied Ecological Awareness

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Abstract

The body is the precondition of any meaning-laden space of learning. As we are located in environments frothing with life, we engage in meaning making through and with the senses of the body, engaging in the creation of scaffoldings of symbolic, rhizomatic understandings by which we navigate our worlds. Thus, I argue that our embodied subjective lives serve as the boundary through which we emerge into an awareness of our place within a network of moving connections. Situating the argument against the mystic poetry of Jalāl ad-Dīn Muhammad Rūmī and the animist philosophy of Isabelle Strengers, I argue that in grounding our educational practices within the body, we have the potential to learn in a way that is more meaningful, personal, and relevant to the subjective process of discovery.

Resumé

Sans le corps, il n'y a pas place à l'apprentissage. Or, amenés à fréquenter des milieux pleins de vie, nous participons à la création de sens avec les organes sensoriels du corps, de même qu'à la construction de structures de compréhension symboliques et rhizomatiques qui nous orientent dans le monde. L'auteure avance donc que le corps, ce véhicule de nos expériences de vie subjectives, constitue une frontière qui ouvre vers une prise de conscience de notre place dans un réseau de connexions dynamiques. S'inscrivant en faux contre la poésie mystique de Jalāl ad-Dīn Muhammad Rūmī et la philosophie animiste d'Isabelle Strengers, elle affirme qu'à l'aide de pratiques pédagogiques axées sur le corps, l'apprentissage serait plus pertinent et personnel, et mieux adapté à la subjectivité du processus de découverte.

Keywords: somatic, education, ecology, Rūmī, Strengers

Mots-clés : somatique, éducation, écologie, Rūmī, Strengers

Introduction

Whether or not I consciously situate myself in relation to the natural world, there is a reality to my living body that acts as a tether. There is no way to create an actual, physical wedge between my material being and my living relationship with the Earth. Taylor describes the malaise of modernity as "characterized by the loss of the horizon; by a loss of roots; by the hubris that denies human limits and denies our dependence on history or God, which places unlimited confidence in the powers of frail human reason; by a trivializing self-indulgence

which has no stomach for the heroic dimension of life" (1995, p. 25). In seeking to transcend this rootlessness, time and time again, I come back to the feeling that our dissociation, alienation, and anxiety drive us toward a return to *origin*. Enlightenment thinkers rightfully rejected the power of religion to dictate reality. We need not return to "God" to find a home within the world. Our search is not for a pastoral or romantic image of a forgotten past, rather, it is a visceral longing for a return *home*. I believe that our bodies are not only the gateway to this connection; it is through our bodies that we may find within ourselves our source within nature. Through our bodies, we find ourselves *to be* nature.

My connection to the natural world, as a pagan, is the focal point of my perspective. In the way I think about and perceive life, nature is the fundamental ground of being. My search for an authentic spiritual identity brought me to a community of practice with people who called themselves Witches, Druids, Heathens, and Pagans. I have participated in and led circle for over 15 years. Having rooted my practice through repetition, it feels embedded within the very fibres of my being. My Métis upbringing also rooted in me an abiding respect for nature. I grew up understanding that everything in the world carries its own purpose. In addition to this, my work as an artist and dancer, a facilitator in both my community and professional practice, made alive for me the way in which our subjective sensations impact the ways we perceive our shared reality. The lessons of art making, which led me to elevate the authentic and individual expression of my lived reality, made clear that our subjective experiences can and should be elevated as legitimate methods of knowing—not just because they inform the process of meaning-making in the world but also because they authentically aid us in delineating our place within the network of life. In so doing, we do not deny empirical scientific understandings. Rather, we add personal depth to our work as academics, researchers, and human beings.

In this piece, I attempt to bring to bear some of my own conceptions of the body, refracted through the work of the 13th century Sufi poet, Jalāl ad-Dīn Muhammad Rūmī's, poem, "Body Intelligence." Throughout this essay, I attempt to complicate the notion of the body with philosopher Isabelle Strengers's (2012) paper, "Reclaiming Animism," in which she points toward a way of being that resists generalization and approaches a state of inquiry—one that balances on an edge of continual engagement, allowing for the centring of the mysterious and unknowable heart of all things. In so doing, I engage with the world and the spiritual nature of the world as being an animate mystery that we may seek to comprehend through its impact upon our bodies and, therefore, ourselves.

In "Body Intelligence," Rūmī (1995) communicates a sense of physical experience that resists concretization, one that hints at knowledge operating through an organic process of discovery that leaves ephemeral physical traces. He intimates a form of being that precedes definition, a sense of the a-rational that emerges from the embodied self living within the procession of senses as they encounter the moving orders of the more-than-human world. In an attempt to

grasp this form of relationality, Strengers (2012) notes that an ontological shift towards embodiment is "a matter of recovering the capacity to honor experience, any experience we care for, as 'not ours' but rather as 'animating' us, making us witness to what is not us" (para. 20). This is not a discarding of Western forms of empirical observation. Instead, it is a situating of knowledge in place as another form of contingent and shifting reality that anchors through a moving body.

Somaticizing education is a way of weaving the self—a self based in a radical form of subjectivity—through sensation and imagination as the felt, material experience of being situated within a sensate dimension. In education, this manifests as an embodied posture leaning into engagement—a posture that centres the body and its products as both the subject and the object of study and thus constructs a mode of teaching and learning whose focus moves through the subjective experience of meaning. The body thus considered provides a kind of informational text where one may read relatedness. As an organic worldly organism, the body then becomes a prism, its sensations serving to refract larger ecological relationships through our encounters with them. The somatic experience of the body grounds the ecological consciousness—a consciousness in relation—by placing importance on the encounter and by acknowledging the fleeting and often mysterious manifestations of the subjective lens.

Smith (2010) summarizes Whitehead's belief about the world, describing it as "a vast network of experiential entities in relationship with one other" (p. 8). Not only this, but our bodies, Whitehead contends, contain societies in and of themselves, of molecules and organs bound together by a shared affective resonance. Furthermore, our ability to share sympathetic relationships with our environments may allow us to extend this inner social order into a matrix of synchronous social and environmental purposes (Smith, 2010). If we look to our bodies as teachers, we may be encouraged to make the shift toward an integrated life, that is, toward being-*with*-the-world through the process of locating moments of shared affective resonance. By making a practice of being within a body that is within a world, by consciously studying with and through our bodies via the present-moment act of experience, we may begin to see the ways in which our lives are made up of somatically-based dialectics of sensation. These dialectics operate in such a way that as we are touched by the world, we react to how we are being shaped, nudged, pulled, prodded, and pushed by it. We synthesize our sensations, translating them into meanings which then propel us to act in the world. We become then, another ripple among many, affecting and being affected. To be able to facilitate the development of environmental awareness, we must take it upon ourselves to locate ourselves as beings in bodies that are relating to other bodies within the present moment. It is contingent upon us to act as models, to demonstrate our relationship with a world that is grounded in an ecological affect.

Knowledge of the Throbbing Vein

In Rūmī's (1995) poem, he says:

> There are guides who can show you the way.
> Use them. But they will not satisfy your longing.
> Keep wanting that connection
> with all your pulsing energy
> The throbbing vein
> will take you further
> than any thinking. (p. 152)

We may be led to the path of knowledge through education, instruction, or storytelling, but seekers must experience personal connection with the world through their bodies in order to have the most profound encounters with it. We cannot confer upon our bodies the experience of an ecological relation, but we may point them in the direction, hint at the possibility, seduce them toward their own investigation through the revelation of the fruits of our own processes.

It is through education as a formalized process that we begin to forget the body as its functions are repressed through the processes of enculturation. Freund (1988) notes Freud's belief that our "bodily-instinctual repression increases with more pervasive and elaborate 'civilized' social constraints" (p. 843). Freund proceeds to advance the work of Norbert Elias, who argues that the process of remaking society during the Industrial Revolution necessitated "imposing self-initiated inhibitions on the 'spontaneous' display of various kinds of bodily expression (e.g., the show of aggression, toilet habits, vendettas, etc.)" (as cited in Freund, 1988, p. 844). Our hunger, need, and desire must be orderly in order to maintain a top-down, predictable social dynamic. This serves to limit the very scope of our desire. We are led to believe that the world can be known, grasped, and controlled. In so doing, our own natures, by extension, may be satisfied through material consumption. Naturally, we seek to grow beyond our instinctual drives, yet we go further than this, seeking to conquer the body. We take the mystery out of our yearning through our reduction of it to a definitive end, an end which Strengers (2012) would see as a deadening of the liveliness of meaning through encounter. In such a scenario, the subsumption becomes a base reality in which the body is remade into nothing more than a brute mechanism. All feelings and desires that are derived from the body are thus brought to a place beyond intrinsic meaning, where the symbolic has no resonance and of what Strengers might call a milieu in which our personal engagement with the world is explained away by materialist rationalizations.

Bauman describes a 14th-century disciple of Meister Eckhart, which he has excerpted from Delumeau's 1990 book, *Sin and Fear*. The disciple says:

> Lift your heart above the ooze and slime of carnal pleasures…. You live in a wretched vale of tears where pleasure is mixed with suffering, smiles with tears, joy with sadness, where no heart has ever found total joy, for the world deceives and lies. (as cited in Bauman, 1998, p. 220)

We are set up to strive against the body as a liar, in favour of a body as the extension of a highly ordered capitalist production force. We cannot, for the sake of the material order attend to the realities of our own yearning, protestations, pains, or alienation, as "work often demands civility and even cheerfulness and sociability in the face of exploitation or of arbitrary use of authority" (Freund, 1988, p. 853). Despite the body's insistence on rejecting structures of oppression, repetitive heuristic social conditioning may override the body's wisdom. The artifacts of revulsion toward the flesh remain with us through the embedded structures of meaning. We may reflect upon the use of utensils rather than our hands, the segregation of bodily functions, the legal requirement to cover our bodies, and in more recent history, censure against physical touch in our schools as a response to instances of interpersonal abuse, but that sometimes forbids teachers from any physicality in regards to children, even hugging, comforting, or being a safe physical presence—as well as censure against children touching each other due to a perceived potential for impropriety (Belkin, 2009; Condron, n.d.; Hopper, 2013). What judgements of a body are contained within each cultural form mentioned here? Possible answers abound: an uncleanliness of the hands, even after washing; a private shame surrounding our naked forms; an implication of impropriety respecting physical touch between adults and children and children and other children. When we seek this transcendence of the physical, we forget that there is no life without a body to feel it. It is the prism through which experience refracts and yet, "the pervasive influence of Platonism and Christian Neo-Platonism" (Weston, 2004, p. 32) implies that:

> true reality is perfect and unchanging, and "this" world (with the word "this" always a form of derogation) by contrast [is] deficient, degenerating, unreliable and ultimately unreal. It is of the very essence of God—of sacredness, divinity, intrinsic value, say it how you will—to transcend "this" world. (p. 32)

Strengers (2012) would contend that it is the unchanging world that is deficient and degenerating simply because it has become closed off to movement and, ultimately, change. Despite our contemporary commitment to empiricism and direct engagement with the material world through scientific inquiry, we are still encouraged to elevate ourselves above the world we observe, to capture it within systems of empirical classification, to halt the movement of the world and make it into something that we can control. Observation, empiricism, and materialism can often, in practice, exclude the self, the subjective felt emotional present observer and, in so doing, reject the intrinsic relationality *between* observer and observed. Our intellectual traditions further distance us from the material of the body and thus the world itself by elevating a logic that

is unfettered from subjective felt reality. Here, we might contrast Descartes's notion of "I think therefore I am" (Descartes, 1967, Part IV para. 1) with Heidegger's (1953) notion of *Dasein*, which might be understood as something like, "I exist therefore I exist," which postulates something occurring below or before thought. When thought and feeling are seen as opposing forces, we may become turned against our bodies. One might say that an illness is "all-in-your-head." This often means that it is not a "real" illness, but when we look at somatization, the materialization of mental states within the body in the form of pain and disease (Obimakinde, Ladipo, & Irabor, 2015), we can see how the idea of something being "all-in-your-head" treats the wisdom of the body and its cries of pain as immaterial, unreal, and imagined—this despite the fact that the subjective, somatic experience of pain is very real indeed. If we seek to transcend the body, we must also, by necessity, deny the realities of the body as they undergird our thoughts and reason. Baudrillard (1994) says, "Today abstraction is no longer that of the map, the double, the mirror, or the concept. Simulation is no longer that of a territory, a referential being, or a substance. It is the generation by models of a real without origin or reality: a hyperreal" (p. 1). When we make the mistake of reacting to a reaction of a reaction, we begin the process of untethering human beings from the embodied processes of nature. We begin to look inward, remaking meanings out of our own symbolic creations rather than reacting against and with the processes of nature as they impact upon our bodies. In this way, we transcend nature by transcending the real. It is our bodies that speak to us about the relation between the inner symbolic order and the world of movement as it acts upon and through us. In elevating the knowledge gleaned through the body, we are able to respond to the world, to thread the traces of the physical as they manifest through us, into our symbolic worlds.

Rodrigues (2018), in his work on movement and ecological relation, argues that "intentionality and transcendence" should not set us apart from the more-than-human world. In fact, they might be the glue that cements all beings into a matrix of inter-relationality, or what he calls, "a decentralized, intercoporeal movement of reciprocal existence" (p. 92). In this way, we may contemplate the possibility that neither mind nor matter need claim supremacy over human or more-than-human existence; rather, there is an interweaving of self and other, mind and matter, that makes up the fundamental experience of life. Plumwood (1999) adds to the notion of an interwoven matrix of life on Earth, pointing out that, "Aboriginal thinking about death sees animals, plants, and humans sharing a common lifeforce" (p. 5). In this way of thinking, we are not merely mind and body in dialectical relation. Instead, we are holistic beings in relation to everything else—and everything else is then in relation with us. Traditional societies have approached our interdependence as a kind of shared force that experiences dynamic change as a part of its basic function. Building on this, Plumwood (1999) states that our endeavour to shield ourselves from the process of death and decay, "treats the earth as a lower, fallen realm, true human

identity as outside nature, and it provides narrative continuity for the individual only in isolation from the cultural and ecological community and in opposition to a person's perishable body" (p. 5). Attempts to do away with the materiality of existence are therefore a denial of life itself, a revolt against the interrelatedness of matter that exists in cyclical relation within systems of life and death, growth and decay. It is not a question of whether we can intellectually distance ourselves from the matter of our existence, untangling ourselves from the process of living and dying. Rather, it is a question of whether we need to transcend this process at all in order to achieve the aims of transcendence. Does the desire for transcendence require us to enter into a negation of the very cycles and processes of our physicality, or is there a rather tantalizing invitation to weave these experiences into a fuller, more comprehensive understanding of our humanity?

In looking inward, we begin to find, as cited in Smith, Whitehead's notion of "shared feeling" (2010, p. 9) that expresses itself in such universal experience as the will towards life and the avoidance of death. In looking at the world, we may begin to understand that a fundamental "desire to live and to avoid death [is] inherent in *all* life forms, we may come to understand that in causing malaria the malaria bacillus is merely trying to live life in the way that has been 'given' to it" (Pulkki, Dahlin, & Varri, 2017, p. 216). Not only is movement inherent to the process of being alive, but in this movement, we move on a trajectory that at one stage moves toward life and after that, towards death. As bacteria respond to the conditions of their world from within their containers, so too do we strive, live, and grow within the container of our bodies. Yet, "Since death … resists the practical measure which human reason is capable of conceiving, all concern with death needs to be *suppressed*. Life needs to be structured in such a way as to make the intractable inevitability of death *irrelevant* to the conduct of daily life" (Bauman, 1998, p. 221). However, this veil that we have placed around the interminable cycle of regeneration and decay presents an impediment. Specifically, We can't easily understand the drive toward life without also understanding the container of our mortality. We are inextricably bound to a lustful drive toward existence even if we are uneasy in acknowledging the untidy matters of the unknown.

In our attempts to come to grips with our present moment living with and within the unwieldly matter of life and death, Rodrigues (2018) helpfully contributes his understanding of the quality of movement that is inherent to life, which "conceives a body, and moving bodies of continuous action, a living body of/in intentional and immanent movement to/with the world and to/with others" (p. 88–89). A body-based, ecological conception of life, then, would centre movement as a fundamental principle. We move and are moved; therefore, we relate; therefore, we are. Therefore, when we cease to move, life too ceases. All meaning within the sphere of life can then be understood as emerging from that "lived experience, which is pre-thematic, and embodied" (Pulkki et al., p. 221). We do not so much *mean* things; rather, we *live out* our meanings. We move our

meanings into relation, and it is in relation that these meanings become rooted. We come naked into the world. Both "humans and nonhumans do not come with a preconceived agency of what something is or has" (O'Neil, 2018, p. 376). We relate *into* agency, into meaning. Our movements bring us into contact with other movements, who then move us in return. Our relations begin to constitute us from the first undulation, and it is these relations that allow us to see that "I do not simply know. I am also *known*" (Jardine, 1998, p. 96). As Rūmī (1995) so eloquently puts it:

> the universe of the creation-word,
> the divine command to Be, that universe
> of qualities is beyond any pointing to.
> More intelligent than intellect,
> and more spiritual than spirit.
> No being is unconnected
> to that reality, and that connection
> cannot be said. There, there's
> no separation and no return. (p. 152)

We are constituted from the same stuff, the stuff of nothing from which there is no distinction and no difference, from energy to matter and back again.

Yet, we are also deeply embedded in the matter of our bodies. It can be felt that "the body responds to colours and tones with subtle differences in tension and rhythm, corresponding to nervous and muscular processes normally taking place below the level of conscious experience" (Pulkki, et al., 2017, p. 224). Our bodies respond to the colour, shape, and tone of our experience through an affective script. There is a complex formulation of tension and movement that creates the felt reality of the outer world becoming constituted within. Lewis (2000), in his description of the *climbing body*, helpfully notes that, "the body has the propensity to physicalize and convey its own sensibility, to become a matrix of, and for, inscription" (p. 74). Experience of the living world reverberates throughout our being with every breath, in every reaching limb. As we live, our bodies intelligently respond to the physical topographies of life. We do not merely think—we also, primarily, feel. It is our feelings that offer us the tone and resonance of our thoughts and which precipitate our actions. It is our feelings that constitute the felt materiality of our reality because we cannot actually reach out and bring a willow tree, branches stretching to trail across the water, into our very being. We can merely catch the light in our eyes as it refracts off the water, feel the vibrations in our eardrums as its shivering leaves rustle in the wind. The sensations we experience through our bodies are a kind of intelligence, an intelligence that speaks with the world around us. And this is achieved not merely through the interior logic of our thoughts, but by our

reaching out into the world of interrelation, making reverberations in the living, moving undulations of being that exist all around us.

These unfathomable layers of synchronous order, contained in these feeling, bipedal organisms, bely level upon level of even greater complexity: of ecosystems upon ecosystems, of connectivity frothing with living movement just under the surface, of what Smith (2010) describes as Whitehead's social orders of varying magnitudes. To extend the homeostasis of our bodies into the world, we cannot sanitize and control our environments because in so doing we cut ourselves off from the seemingly chaotic connections that spontaneously form in the creation of greater organic orders. As Strengers would contend, we cannot possibly comprehend the totality of being and thus we must limit the pursuit of certainty, of closure. It is in the apparent disorder that we are inexplicably connected, through patterns that remain inaccessible to the machinations of our reason or that may simply be incompatible with the drive toward a human orchestrated sense of order. We may, simply, not be large enough to hold all being and nature within our grasp. The rhizome, under a level surface, exists as a network of interconnected systems, sprouting and connecting at seemingly random intervals, without any interruption in the ability to communicate (O'Neil, 2018). Like the rhizome, we are limbs of the world, being born out of the felt moment, touching, being touched, reconfiguring, learning, and growing. We are building and maintaining a scaffolding of meaning constructed out of subjective narratives that spring from felt moments, and every time we meet with a new experience, we are adapting and organizing those connections (O'Connor, 2018). An organic assemblage is more adaptable than a monument with columns and straight lines. As we are continually faced with new experiences, these combined affective resonances make messy, organic networks that we use to process our interactions with the environment. They are activated even before we can grasp them into conscious relation with known meaning, sense, or purpose. This doesn't simply relate to our individual perceptions of life events. Instead, "the productive and restrictive function of the social structures, as well as of the subsequent emotional dispositions, strongly link the emotional habitus to social relations of power" (Leledaki & Brown, 2008, p. 310). Our bodies and their feelings are situated in relationship to structures that are well beyond the scope of our individual lives, within social and ecological orders that have no *creator* per se, but rather, exist as waves of movement undulating through living relationships. Strengers (2012) would highlight the importance of engagement without a given end, of experience without explanation. It may be that by focusing on the quality of our connections, our subjective and personal experience of touching and being touched, we may be able to find ourselves most tangibly in the imminent relationships that emerge. It may be in those moments where the "emotional habitus" becomes directly accessible, and in being able to access the foundation of our felt reality, we may begin to comprehend a potential method for encountering power where it is rooted.

Our societies may develop a habitus that serves to separate us from the world. However, when we are inevitably thrown into what Bauman (1998) calls "marginal situations," such as an encounter with death, we may have our previous perceptions of life thrown into relief by the fact that "death radically challenges *all* socially objectivated definitions of reality—of the world, of others, and of the self" (Berger, 2011, Religion and World Maintenance). One often awakens to one's connectivity when facing the material reality of a mortal life, of a living body with boundaries that are made of borrowed matter. We are not outside or above life; we are *within* it. When facing the margins of our life as it is, within a body in the Earth ecosystem, we are forced into confronting the reality of being in the living-world.

Your Distance to the Sun

Scully (2012) points out that, "the privileging of a static ahistorical ideal of ecosystems and of culture has, at its heart, an agenda that is fundamentally out of touch, perhaps even dysconcious" (p. 152). And yet, despite the destructive qualities of these systems, the mythology of human progress as disconnected from the natural world persists. In fact, these mythologies may be attributed to lingering drives of colonial expansion, appropriation, separation, and control. Reflecting on this, "our places of learning have their own emotional contours that serve to legitimize and delegitimize ways of being; including ways of feeling" (Alsop, 2011, p. 615). Inside institutions of learning, our children are taught to be, think, and feel in ways that help them to live in *our* world *as it is*: the world of the self-referential and the hyperreal. It is the human world, the discontinuous world, that we are taught to live within. In this context, "the disposition is to treat bodily practices as secondary to epistemological, cultural and linguistic practices" (Alsop, 2011, p. 615). In Canada, despite recent shifts towards an interest in the integration of Indigenous educational practices, perspectives, and cultures into school curricula (Kabatay, 2019) as well as place-based-education, experiential learning, and environmental educative practices, which all serve to do the important work of connecting learners within the felt world, our institutions of learning continue to come under the pressure of neoliberal drives, making schools into places where individualism, competition, private and/or corporate interests, and the strategic training of students to meet the demands of the labour market reign supreme (Hales, 2014). We continue to highlight that which helps us to thrive within the worlds that we have made for ourselves. We could easily go so far as to say that "alienation from the physical environment is seen as one key element in producing environmental devastation" (Pulkki et al., 2017, p. 214). Our schools effectively wall children off and away from not only the natural world but the human world as well. The school becomes "almost always about external facts 'out there,' almost never about what goes on 'in me' and in my lived-body" (Pulkki et al., 2017 p. 215). To potentially

correct our course, we must look outside of traditional educative settings for inspiration, beyond traditional accreditation, to those who are preserving and cultivating adjacent systems of knowledge. Indigenous storytellers, anarchists, activists, and environmentalists, mothers, fathers, neighbours, and friends. Education itself should be woven into the fabric of our communities and the lands that they are situated within. It is, of course, much less messy to deal with systems that are cordoned off from the, at times, maddening changeability of the world-at-large. Yet, we can see the devastating consequences of this attempt at control. We see:

> an industrial eater as one who sits down to a meal confronted by a platter beyond resemblance to any part of any living thing. Both the eater and the eaten are thus exiled from biological reality. The result is a kind of solitude, unprecedented in human experience, in which the eater may think of eating as, first, purely a commercial transaction between eater and supplier, and second, as a purely appetitive transaction between eater and his/her food. (O'Neil, 2018, p. 367)

Is the creation of atomized relations happening for the nefarious purposes of hegemonic control or as the product of traumatized subjects within a process of historical violence? Wherever we look, we may see hints of our dissociation from the physical plane of our experience and from the subjective, material personification of that experience in our bodies.

Rūmī (1995) says, "You and your intelligence / are like the beauty and the precision / of an astrolabe. / Together, you calculate how near / existence is to the sun!" (p. 151). I think he means that we should be skeptical of the institutional dogmatisms that constitute our educational stories. We can feel for ourselves our relationships with the world around us as meanings unto themselves. Rūmī was educated in the Muslim faith, and became an instructor of Sharia Law. It wasn't until his mid 30s when he encountered his spiritual mentor, Shah Shams Tabrizi, that he was able to truly reach beyond the constriction of his early education, finding space within his tradition for greater insight without the need to throw over the entirety of his traditional learning (Mojeaddedi, 2017). We too are tasked with the pursuit of looking beyond the narratives of our cultural institutions but also those of our families and communities—not to outright reject their teachings but to allow ourselves the ability to see that which our traditions cannot encompass. It is not that we should not have narratives or containers within which to create meaning and purpose, but that we should not use our containers as blindfolds. We can see the distance from ourselves to the sun as measured by science, and we can feel its proximity as we turn to face it.

More so than ever, through the challenges of a disintegrating ecological order, we are invited to reach beyond the collective habitus that blinds us to the material of our own senses, to look to nature and our bodies as our teachers. We can *physically* experience the effects of air pollution, of our inability to drink water from our rivers even when we are thirsty. We can feel the heat of the sun

on our heads when there are no soothing leaves to shade us, when the concrete sizzles and we are choked by the fumes from gasoline combustion. Our bodies are able to communicate to us the distress of the natural world. Through our own distress, which validates the material of our physical senses, we can become vessels for those mute aspects of our world, allowing for their voices to be understood by those who do not speak their language. Drawing the body into our learning is not difficult, but it may require a deep shift. The slowness and attention of a mindfulness practice, the ability to focus on and elevate emotion through poetry, the ability to express ourselves through dance, through the wonder of imaginative play—all of these practices and more can strengthen our teaching and call the body into our work.

Silence in the Face of Artistry

Rodrigues (2018) suggests a structure "for theorizing ecopedagogy," the foundation of which is organised around "the need for understanding that the concept of naturalization presumes a complete unawareness of the naturalized structure by the individual (incorporated habitus) or society (collective habitus)" (p. 96). The structures themselves, though they may be felt, may not always be accessible to our attention. We perform within structures that have become so embedded in our understanding of being that they have become functionally invisible. So, our work must begin by bringing these hidden depths into the light. For, "if modern enactments of the self rely on habits, practices and affective geographies which solidify these dualisms, non-modern ontologies of affect are vulnerable to the sensate, embodiment and otherness" (Carvalho, 2017, para. 20). This is a call for a re-examination of the minutiae of our lives, of the small moments of touch that occur between our bodies and the world. A massive shift may take place in a landscape when one removes a tiny pebble. We may send the entire mountainside skidding by brushing away a bit of rubble. A massive project need not shift the mountain itself. It is enough to simply shift one stone at a time, to pick away at the pediment of industrial alienation. It may be enough to understand that:

> learners' physiological responses should not themselves be conceived as arbitrary or for that matter random. They might more fruitfully, I suggest, be thought of as *acts-of-resistance* in which the body emerges as an antagonist to remind us of overly disembodied reasoning. (Alsop, 2011, pp. 618–619)

Depending on how you look at it, we may begin to reinvigorate the practices of teaching and of learning from the perspective of either the *deeply human* or the *deeply inhuman,* which meet at their extremities. It is that which is hidden, physical, and personal that we wish to bring forth into proper importance. In this way, we must remember that the mind and the body are synonymous. There

is no *real* distinction between physical and mental, and so "a powerful image interweaves curricular content with human emotion and, possibly, a physical or somatic experience" (Judson, 2014, p. 5). The places of the mind are no more separate from the world than we are. Thinking in this way, we may respond to Macfarlane's (2015) pleading query, "where are your dictionaries of the wind?" (para. 8). We may begin to construct them by learning to engage with and comprehend our felt experiences. For untold years, poets have used words to evoke the somatic experience of place and self. Words, texts, and images may become artifacts of the body if we wish them to be. As Judson (2014) asserts, "images that evoke the senses help us to encounter the world more holistically," adding that, as a result, "we can become more alert to how our bodies are connected with our surroundings and we are more likely to feel a sense of immersion or embeddedness in the world" (p. 9). To know the world and to be able to feel it, we have to be connected to our capacity to attend to and comprehend our senses. Our pursuit is knowledge of the senses, including the imagination—a pursuit of how the material of our study becomes grounded in our stories, our feelings, and our lives.

Practices of contemplation are a powerful approach to grounding ourselves within our experience, to "affiliating with the world and its 'flesh'" (Pulkki et al., 2017, p. 220). The act of attention is a study. How else do we come to know something except by paying attention to it? We may seek to confront the pain that Carvalho (2017) says arises as the body's resistance to a changing habitus. When we resist the avoidance of this pain, we may then begin to "implement a new habit of the self" (para. 15). Sensation is the text to be studied. Yet, it is not pain alone that we must study but rather the feelings and emotions that emerge as a response to engagement with and in the world. Rodrigues (2018) suggests that "if a ludic experience is defined as one where pleasure of joy/happiness gives meaning to the lived experience, we can associate pleasure or joy/happiness to an ideal *flow* of intercorporeal-environmental synergy where an expected positive interaction is anticipated" (p. 92). Joy and pleasure are also important feelings to attenuate ourselves to. As we move about, we may begin to "develop the ability to identify in the environment metaphorical bells of mindfulness, allowing external reality—such as trees, the sky, the steam generated by boiling water—to become meditation teachers, reinforcing their contemplative status" (Carvalho, 2017, para. 2). Everything in the world is our teacher. By watching the world, we treat the physical manifestations of it as our instructors. MacEachren (2018) speaks of traditional Indigenous teachings as happening where:

> Elders engaged with materials gathered directly from the land, and conversed as they worked in order to share lessons with younger people. They seldom seemed to just lecture or just talk; rather their hands were always busy. Often they would demonstrate something without verbalizing, expecting others to learn through careful observation and their own thoughts. (p. 92)

Our own bodies, as observed through their movement in and with the world, can become teachers, but so too can bodies in nature be observed by us—their movements assembled into meanings within us. In our movements, we provide others with the opportunity to reach out the tendrils of their awareness, to take us into themselves and make what we are doing a part of who they are. It is possible that "opportunities to witness skilled experts working at their craft fine tunes both the reflective processes and an awareness of what the body is capable of" (MacEachren, 2018, p. 96). In the study of mirror neurons in the brain, the same physical structures fire whether we are physically performing an action or observing that action being performed by someone or something else (Jeon & Lee, 2018). We may become spontaneously excited by movements we recognize around us. Even in our own stillness, in witnessing the world, we engage in its movement. As it is happening outside of us, it also dances within. In Adrienne Maree Brown's (2017) book, *Emergent Strategy*, she suggests that this latent interconnected movement and sensitivity could very well be the key to creating holistic, organic social change. She compares human organization to the organization of birds as they flock:

> Birds don't make a plan to migrate, raising resources to fund their way, packing for scarce times, mapping out their pit stops. They feel a call in their bodies that they must go, and they follow it, responding to each other, each bringing their adaptations (p. 13).

A deep and abiding understanding of our bodies and their communications may be the very thing that allows us to form ourselves into sensitive, responsive, and organic social movements, able to respond to change at a moment's notice. When birds flock in the sky, they look like smoke, like tumbling river water. There is a beauty in the complex and interrelated nature of their connections. We are like birds. We can aspire to be like water, like smoke, like tumbling patterns of beauty.

Rūmī (1995) reflects this sensibility in his lines, "Observe the wonders as they occur around you. / Don't claim them. Feel the artistry / moving through, and be silent" (p. 153). He suggests that we need not speak to the beauty we observe in the world but, instead, we may merely know it in the silence of the encounter. We can immerse ourselves in a motion that exists beyond us, a wave that we can allow ourselves to be caught up in. We need not distinguish ourselves as something separate to be something of divine beauty and importance. I am suggesting that what we seek to achieve is a permeable body, a body that is sensitive to communication. Our bodies are a set of eyes that can see, ears that can listen, taste buds that can savour, noses that are capable of detecting odours, fingers that are able to reach out to touch, limbs that are able to dance, and a deeply felt affective resonance that can make sense of all this. The body itself is a lively organ, a text with a language all its own, a language that we must learn to read. In learning this language, we must be sensible to the ways in which:

> the elements are constituted in the flow of their interactions, creating specific meanings in each moving encounter—to the person lying in the beach, the cold is the sand (not the feeling of cold that comes from the object "sand"), the blue is the sky (it is light, not something seen in the light) and the wind is its feel (not the touch of an object). (Rodrigues, 2018, p. 91)

There is something *of* us in each of our perceptions. We cannot escape our particularity, and in attempting to revolutionize our relations, we cannot forget to examine the self within them.

As our bodies become more porous to the world around us, we may develop a practice that inspires "a biophilia revolution towards affinity of all life" (Pulkki et al., 2017, p. 216). Through observation, study, and especially through joy, we may begin to love the world. We may fall in love with the world if we can learn how to live within its rhythms. We must learn to be in the world, to function within its systems of reciprocity, of life and death, growth and decay. Our pursuit must be nothing less than a "third-order change," which is "an ontological change in how humans and the material world relate" (O'Neil, 2018, p. 365). This is not about doing things differently, but rather of *being* different and allowing our actions to come from a new centre. If we are, in fact, entangled within the ecological relationships of the world, we may say that "in embodied human consciousness, nature become conscious of itself" (Pulkki et al., 2017, p. 221).

Conclusion

Everything in my environment is *the* environment in which my body resides, including my students. I am not a mind communicating to other minds, but an embodied life in relationship with other *lives*. In attempting to teach, I also face up to the latent requirement of becoming transformed by my experience of other subjectivities. I am continually placing myself in the centre of a kind of storm of thoughts, experiences, feelings, and emotions that has the potential to send me drifting out into the ocean, untethered, and dis-coherent. I think of myself as a kind of anchor, the weight of my experience, skill, and confidence grounding me at the centre of this storm and grounding all of us together in a shared experience. I see my job as continually drawing us back into relationship with each other and with the world outside of our little classroom—the human and the more-than-human world both. All worlds exist outside of our little room but also within it and within *us*. I have the responsibility to draw into focus different aspects of our experience as they emerge. My work as a teacher reminds me very much of my work as a storyteller. I draw into relation those elements of our collective experiences that relate and that say something about the lives we are living in this very moment. It is the story that makes sense of our experiences, but the story itself is formed out of the base material of our loves, hates,

fears, and desires. We are able to be touched by the world because we have bodies that exist in relationship to the world. And when we can summon our bodies to speak, we can draw into our learning spaces the vast wisdom of our bodies, to add shape and dimension to our stories.

I am an aspect, a facet, a fragment of something complex and pervasive. I am within this, whatever it is, and my senses are what allow me to know it. It is only through my subjective experience of the world that I may understand what it is to be alive. My subjectivity is the key to my understanding of being, but that subjectivity is not a totemic kind of independence. Rather, as I begin to relax, to attend to the sensations arising within the body that is me, I become permeable to the meanings and movements of the world. I become caught up in those movements, responsive to cries of pain as much as of babbling brooks. I am a being of the world and as such, my body is an ecological text; it is a prism. In studying my body, I know the Earth.

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Digging at the Root of the Tree: Conceptualizing Relational Ecological Identity

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Abstract

The following is based on a qualitative study conducted with two not-for-profit organizations based in Hamilton, Ontario: A Rocha and Good Shepherd Centres. Guided by grounded theory and participatory action research (PAR) methodologies, my research examined Operation Wild, A Rocha's environmental education (EE) program for adults with disabilities. In this article, I draw on participant voices from that research to respond to and extend Mitchell Thomashow's (1996) work on ecological identity by suggesting that his conceptualization of the ecological self is theorized as a solely individualistic, anthropocentric concept. With guidance from literature by Indigenous and disability studies scholars, I outline a theory of relational ecological identity, which encourages the interdependent, intergenerational, and interactive components of ecological identity-building. The concept is explored by foregrounding the stories and perspectives that emerged from Operation Wild's participants.

Resumé

Cet article découle d'une étude qualitative menée avec la collaboration des organismes sans but lucratif A Rocha et Good Shepherd Centres de Hamilton, en Ontario. Guidée par la théorie ancrée et la recherche-action participative, cette étude portait sur Operation Wild, un programme d'éducation à l'environnement d'A Rocha destiné aux adultes ayant un handicap. Dans le cadre de cet article, l'auteur utilise le témoignage des participants à la recherche pour répondre aux travaux de Mitchell Thomashow (1996) sur l'identité écologique – et porter plus loin sa réflexion – en avançant que son concept du soi écologique est strictement anthropocentrique et individualiste. En s'inspirant des écrits de spécialistes en études autochtones et en études sur la condition des personnes handicapées, l'auteur présente une théorie de l'identité écologique relationnelle qui privilégie les composantes interdépendantes, intergénérationnelles et interactives de la construction de l'identité écologique. Le concept est exploré en mettant de l'avant les récits et points de vue des participants à Operation Wild.

Keywords: ecological identity, environmental education, participatory action research, Indigenous knowledges, disability

Mots-clés : identité écologique, éducation à l'environnement, recherche-action participative, savoir autochtone, handicap

Introduction

Marine biologist and author, Carl Safina, refers to the popular Western mode of engaging with the natural environment as "Discovery Channel mentality" (Safina, 2012, p. 163). Unless it is fast, exciting, and exotic, nature is of little interest to the modern observer. In fact, there is little observation even going on. The leader of my local Hawkwatch (for the uninitiated, see Hawkwatch International, 2018) recently said to me, "There are two types of people in the world: those who can see the bird in the tree, and those who can't." He was speaking figuratively about climate change and the ecological crisis, but there also happened to be a Red-tailed Hawk sitting directly above us. Passersby streamed by us, oblivious to this beautiful bird of prey. Those who did stop raised their phones to the sky, snapped a photo, and kept moving. How do we exist in relationship with this local raptor? By watching the BBC's *Planet Earth*? Through a voyeuristic cell phone video? Or by attending, observing, and waiting for the communion of human and nonhuman beings?

After a year spent documenting the early stages of Operation Wild—an environmental education (EE) program for adults with disabilities that was developed by A Rocha, a faith-based environmental not-for-profit—I have come to understand the roots of contemporary environmentalism differently. I have critically taken up Mitchell Thomashow's metaphor of the tree (Thomashow, 1996), the roots of which, he says, are the "environmental archetypes": Henry David Thoreau, John Muir, and Rachel Carson. He draws on this metaphor in his book, *Ecological Identity: Becoming a Reflective Environmentalist*, to discuss the many iterations and conceptualizations of what he calls "modern environmentalism" (Thomashow, 1996, p. xvi)—a term that I find contentious. Via the tree metaphor, Thomashow provides a framework for those engaged in ecological identity work. He states that "Ecological identity refers to how people perceive themselves in relation to nature, as living and breathing beings connected to the rhythms of the earth" (Thomashow, 1996, p. xiii). In this paper, I reveal the shortcomings of an environmental ethic based solely on these ways of knowing and, in particular, on Thoreau, Muir, and Carson as foundational thinkers, though I am not the first to do so (Lowan 2011; Lowan-Trudeau, 2013). I attempt to dig at the roots of Thomashow's "Trees of Environmentalism" (Thomashow, 1996, p. 25) to explore a different approach to what guides environmentalism.

Given A Rocha's roots in the Christian faith, it is important to acknowledge the connection between foundational Western environmental thought and Judeo-Christian intellectual traditions (Evernden, 1999). A Rocha was founded in Portugal in the 1980s and, as such, emerges out of a historical legacy and intellectual tradition that has often been in tension with the Indigenous knowledges I cite in this paper (Kimmerer, 2013). With that in mind, many staff at this particular A Rocha site diligently attempt to decolonize their own thinking in order to challenge the colonial hegemony with which the Judeo-Christian tradition

has approached these lands and communities—and the human and more-than-human beings found therein. Although a more nuanced exploration of these tensions and contradictions is material for a paper all its own, suffice it to say that the interviews I engaged in with staff often explicitly or implicitly gestured toward a posture quite different from the one many of us associate with the Judeo-Christian preoccupation with human dominion over land. These insights have led me to more deeply consider Indigenous scholarship concerning human relations with land and the more-than-human world. I have done this while continuing to acknowledge the ever-present risk and colonial legacy of co-opting and assimilating Indigenous ways of knowing into Western environmental education paradigms (Agyeman, 2002; Simpson, 2002). Importantly, the program community was itself religiously and culturally diverse, so this study is by no means the analysis of a homogeneous Christian community.

Environmentalism, though identified by different names, is an ancient practice, situated on land, and guided by relational connection and responsibility to the beings that surround us—that is, to those who occupied the land long before humans (especially Settlers) did (Rasmussen & Akulukjuk, 2009). Being "connected to the rhythms of the earth" (Thomashow, 1996, p. xiii) should not be a symptom of our interactions with the work of environmental archetypes—as important as some of that work is—but should rather be, primarily, a result of a living, breathing relationship with the places we inhabit, the memories we hold, and the more-than-human futurity we imagine. By highlighting the multivocality of the community I was enmeshed with over the past year, my research aimed to "create space" for some of the quieter voices (Russell, 2005, p. 439). Drawing on that research, I suggest in this paper that Thomashow's framing of ecological identity is a concept based on a Western, individualistic understanding of connection to earth. While it is important to promote reflexive environmentalism and "know your roots," such applications for EE have been largely isolating and anthropocentric concepts that do little to radically reimagine the ways we might depend on and interdepend with the natural environment. Therefore, I outline a theory of relational ecological identity, which encourages the interdependent, intergenerational, and interactive components of ecological identity-building.

Of course, Thomashow is not the only scholar who has helped illustrate the concept of ecological identity. Kay Milton (2002) expresses the ways in which deep ecology scholars have tried to understand "what it means to identify with nature" (p. 76). Milton argues that identity can be cultivated through the ontological acknowledgement of personhood in and intersubjective experiences with "non-human others" (Milton, 2002, p. 86). This work has been more recently taken up by Teresa Lloro-Bidart (2014), who examined staff interactions with lorikeets in an aquarium setting to understand how relationships are developed in spite of (or maybe, along with) the "unpleasant aspects" (p. 402) of human–nonhuman relations. She suggests that some humans are capable of "knowing the Lorikeets as persons "like me"" (p. 403).

Charles Scott (2011) suggests that an "ontological stance of relationality" (p. 137) is fundamental to acknowledging the "complex webs" (p. 138) we are located in. Relational ecological identity, in his view, relies on "dialogical capacities" (Scott, 2011, p. 138) that allow educators to facilitate awareness, affirmation, and inclusion of the "others in our surrounding ecologies" (p. 142). In terms of our ecological "webs," John Seed understands identifying with nature as meaning we see ourselves not as "protecting the rainforest" but actually as being "part of the rainforest" (Seed, Macy, Fleming, & Naess, 2007, p. 3); this appears to be a step closer than traditional Western perspectives to Indigenous ontologies of land as described by Bang et al. (2014): "Land is, therefore we are" (p. 45). Similarly, Leroy Little Bear (2000) describes all life's organizational structure as "a 'spider web' of relations" (p. 79). But there are significant differences between Indigenous ontologies of land and those articulated by non-Indigenous deep ecology scholars. While deep ecology scholars seem to suggest that it is the recycling of atoms that generates "consciousness of our past [and future] in other forms" (Milton, 2002, p. 77), Indigenous scholars such as Dwayne Donald (2009) emphasize that, for instance, rocks themselves are "animate in that they have vitality to them, an internal hum of energy that, in a spiritual way, retells the stories of Creation" (p. 12). I draw attention to these thinkers to reveal the ways that non-Indigenous theories of ecological identity have largely overlooked the kinds of relationality present in Indigenous knowledges. What this has done is build theory that tries to subvert Western concepts of self (see Milton, 2002, p. 88 for an example), while entertaining an awareness of the nonhuman other founded on paradigms of Western science rather than on the kinship of creation (Donald, 2009; Little Bear, 2000).

Extending this line of inquiry to include scholars of disability studies, it is noteworthy that a sense of self predicated on kinship and relationality (Donald, 2009; Kimmerer, 2013) mirrors the way that the eco-ability movement seeks to reject individualism and foster interdependence (Nocella II, 2017; Nocella II et al., 2012). Nature and the disabled community are both at risk of commoditization, that is, "the privileging of commodities and property over relationships and mutuality" (Smith & Manno, 2012, p. 62). This is reminiscent of Lloro-Bidart's (2014) argument that the aquarium space limits the human–nonhuman relationship as aquarium visitors are constructed as "neoliberal consumers" (p. 405), rendering them incapable of authentic mutuality. The authentic relationship is one that acknowledges citizenship. I conceptualize citizenship as composed not only of the socio-political but also of the ecological dimensions of belonging and recognition within a community. Thus, we are both citizens of land and citizens with land; such a perspective offers a more inclusive, generative way of thinking than does a perspective that simply recognizes human-state citizenship. In recognizing this broader understanding of citizenship, I am influenced by Indigenous scholars such as Donald (2009) who reminds Settler environmentalists that Indigenous peoples "recognize the land as relative and

citizen" (ibid.). Notably, disability studies scholarship has considered the precarious nature of citizenship for those identified as having disabilities (Arnold, 2004; Parekh; 2014; Prince, 2014). It is indeed possible for some to experience formal citizenship status while still experiencing societal exclusion and its associated vulnerabilities (Yuval-Davis, 2011; see also Parekh, 2014).

Ecopedagogy scholars such as Greg William Misiaszek (2016) also ask us to consider "humans in the future as fellow citizens" (p. 601). By widening our definition of citizenship, we might also see earth as "the most oppressed citizen" (Misiaszek, 2016, p. 597). It is my contention that the—where needed, reclaimed—citizenship and intersubjectivity between the disabled and the nonhuman community help to correct the "map" that Thomashow was trying to draw with his "trees of environmentalism." It is time that the mainstream environmental education movement recognized the voices of disabled communities who have learned much about kinship, fellow citizens, and the mutuality found beyond the reach of neoliberal and colonial orientations.

Context

Operation Wild is an EE program developed by A Rocha for adults with disabilities. In the organization's own words, Operation Wild is committed to "providing hands-on environmental education and accessible nature experiences for adults … [facing] barriers or [with] disabilities, building inclusive and engaged communities, and encouraging others to support a healthy and sustainable environment" (A Rocha Ontario, 2019). The programs are hosted either at the Cedar Haven Eco-Centre, just outside the City of Hamilton, Ontario, or as urban-based programs within the city. My research was conducted using a participatory action research methodological framework alongside participants and support staff from a partner organization, Good Shepherd Centres of Hamilton, as well as A Rocha staff. The challenge was to develop a way to engage a variety of people with a range of abilities in meaningful environmental education that connects people to place, generates social capital, and provides meaningful access to the outdoors in an inclusive and transformative way.

Participatory research for adults with disabilities is an understudied landscape among EE scholars. Even interrogations of ableism within environmental studies are infrequent and relatively recent (Brodin, 2009; Kafer, 2017; Magnusson, 2006; Nocella II, 2017; Ray & Sibara, 2017). The aims of existing scholarship include examining the social-ecological benefits for diverse and often marginalized urban communities (Krasny & Tidball, 2015; Kudryavtsev, Krasny, & Stedman, 2012), enhanced inclusion through outdoor education (Brodin, 2009), and the promotion of lifelong and enhanced learning through outdoor experiences (Szczytko, Carrier, & Stevenson, 2018). Operation Wild programming is, at least in part, motivated by an understanding of the social model of disability, which locates disability as the fault of restrictive social, political, and

economic systems rather than as bodily impairment (Burghardt, 2018; Oliver, 2009; Taylor, 1999). In the case of nature-based programs, researchers have observed that who does or does not have access has historically been of "peripheral importance" (Brookes, 2002, p. 415). As the various groups involved with Operation Wild evidenced, it is important to recognize that the categorization of "adults with disabilities" or "persons facing 'barriers' to EE" certainly does not refer to a homogeneous group (Brodin, 2009). Though individuals from Good Shepherd Centres of Hamilton encounter restrictive access to privileged economic, social, and political spaces, it was not a prerequisite that they identify as having a disability or as being disabled.

I initially sought to critically examine EE practices, particularly citizen science and civic ecology, aimed at increasing social capital and place attachment for Operation Wild participants. I grounded my work in the following question: What stories emerge from places used in EE programming for adults with disabilities? How is involvement in citizen science and civic ecology experienced in this context? To what extent do adults from the Good Shepherd community feel they have agency in the planning and facilitation of Operation Wild? My aim was to imagine how more inclusive forms of EE might better inform the development of future projects, and thus inspire more progressive approaches to and understanding of EE programming and pedagogy. What emerged as a result of my methods of inquiry was a new way to understand ecological identity and its relationship to environmentalism, which I will explain below.

Methodological Considerations

The communities participating in Operation Wild come from a variety of assisted-living organizations operating in the City of Hamilton. The participants in this participatory action research (PAR) study were members of the Housing with On-site, Mobile and Engagement Services (HOMES) community, which is made up of individuals living in independent housing supported by Good Shepherd Centres of Hamilton (Good Shepherd Centres, 2014). I conducted interviews with the following three groups: members of A Rocha staff at the Cedar Haven Eco-Centre (the not-for-profit organization); community support staff from Good Shepherd Hamilton (the partner organization); and the adult residents of the Good Shepherd HOMES community who are participants in A Rocha's Operation Wild program. I refer to these three groups together as the "program community." An important aspect of Operation Wild is the gratitude circle that occurs at the end of each program, wherein all members of the program community relate something that they are grateful for. Near the outset of my involvement, this led me to consider what it might look like to also gather to address our hopes for the program. This would be in keeping with the "shift from a focus on 'getting information to people' to create awareness, to 'getting people together' with information so that they can deliberate problems and

endeavour to bring about change" (O'Donoghue, 2014, p. 11). Ultimately, our focus group was inspired by Penelope, a program participant, who said, "I think that's the thing ... where do you go from here? Do you get a group of concerned citizens together and you sit down and have a jam session?" The intent was to strengthen the Operation Wild program in a manner developed by and with program participants and stakeholders.

While PAR is what ultimately guided my research goals, grounded theory allowed me to employ an "intermeshing" of returning to the field, analyzing data, and reframing research questions in order to best serve the needs of the participants and provide the most accurate picture of the data available (Glaser & Strauss, 2009, p. 73). Though general themes were determined in advance—insofar as the study commenced by examining what I termed "the stories that emerge from place"—many of the central research questions and codes emerged throughout the study. For example, although the organizations involved in the program emphasized goals such as social capital and place attachment, a grounded theory methodology allowed me to continuously revisit my interview data and field notes to assess and explore the presence of other emergent themes. This iterative process quickly revealed that the theme of ecological identity was most apparent, while place attachment, in particular, and what I identified as "collective becomings" were evident, but less explicitly relevant to the experiences of participants. This gave me the opportunity to restructure the kinds of prompts I might use in my interviews; ultimately, the interviews with the program community guided the subsequent design of the focus group, which occurred toward the end of the study.

To assess each participant's desires for program development, I adopted the method of the go-along interview (Carpiano, 2009; Kusenbach, 2003), with which I could conduct a semi-structured interview. This method allowed participants to guide the interview process as they saw fit, while letting their "experience-in-place" (Manzo, 2005, p. 74) influence the shape of the interviews as well. In emphasizing a participatory process, I did my best to allow the interviewee to guide the interview process, acknowledging that the program community itself may "have the best questions as well as the best answers, and may perceive a different, more relevant scope, to the area of inquiry" (Rishbeth, 2013, p. 103). I conducted go-along interviews with all members of the program community. Although go-alongs are designed to be conducted with as little guidance from the interviewer as possible (Kusenbach, 2003), I did compile a few prompts based on field observations and early conversations—adding to the list as I conducted interviews. The following are the prompts as they existed at the end of this cyclical, iterative process of dialogue:

- What stands out/What is significant for you from Operation Wild?
- What learning and/or place do you connect with the most at Operation Wild?
- What do you know about the place where you live? What are some of your most special memories of being outdoors/in nature?

- How do you connect to nature/the earth?
- Do you feel like you have a voice in what happens here at Cedar Haven?
- What would you change?

Operation Wild is a program intended to enhance participants' learning from, and connection to, place. Thus, in considering a meaningful, participant-centred research design, I aspired to utilize a methodology that might further the aims of the program itself. Recognizing that conversation, dialogue, and storytelling practices allow communities of people to cultivate meaningful connections to places (Kudryavtsev et al., 2012; Stokowski, 2002; Williams, 2013), my methods were designed to scaffold the stated aims of the program I was researching. Moreover, storytelling and go-along interview methods emphasize the value of prolonged informal contact and casual interaction with research participants—for over half a year—as a way to build trust and rapport with the community (Rishbeth, 2013; see also Lesseliers, Hove, & Vandevelde, 2009, p. 416). As a result, I spent eight months involved with Operation Wild programming, using my background as a teacher and naturalist to help facilitate programs. Despite my privileged identity and positionality as a researcher, I was able to avoid being an intruder by developing a rapport with the Operation Wild community and by being present as an insider and collaborator. As Claire Rishbeth (2013) reveals, located storytelling and participatory approaches have been shown to aid in carrying out cross-cultural research and in addressing power relations in qualitative research. These approaches thus foster "more inclusive engagement [for] many people" (p. 109). The stories collected informed the ongoing, cyclical research process in order to better represent the full story of Operation Wild and result in authentic feedback for the continued growth of this kind of inclusive, accessible EE programming.

Findings and Discussion

In the following, I explore my ongoing dialogue with the Operation Wild program community by emphasizing the relational dimensions of their environmental thinking. Though many did not explicitly refer to Indigenous intellectual traditions, I argue that by disrupting dominant paradigms of Western environmentalism, the program community was largely pointing toward a relational and collective sense of kinship relations, which is inherent in Indigenous understandings of land and community. This necessarily challenges the way in which ecological identity has been conceptualized by Thomashow and others, creating openings for critique and opportunities to reframe what it means to become an environmentalist. I do this by discussing the way we might listen to the more-than-human communities and by emphasizing the reciprocal nature of these relationships. Next, I establish the importance of the collective, intergenerational, and interdependent aspects of relational ecological identity. In the

Collective Becomings section, I briefly point to the way in which critical disability studies scholarship orients us toward a posture of mutuality, while challenging Western notions of singularity and autonomy. And finally, I discuss the importance of naming as a process of kinship, while remaining wary of colonial efforts to name and claim.

Exploring Relational Ecological Identity

Thomashow's efforts to understand and support the formation of the ecological self highly influenced my emerging understanding of the perspectives of program community members as I engaged in dialogue with them. Thomashow's concept of ecological identity was useful in the analysis of the Operation Wild program community insofar as the members therein demonstrated the perception of self as connected to the earth. Not only that, Thomashow's work also provided me with questions designed to reveal the kind of thinking *behind* this perception of selfhood and identity. Indeed, there are four questions that Thomashow (1996) suggests are "at the heart" (p. xvii) of EE:

> What do I know about the place where I live? Where do things come from? How do I connect to the earth? What is my purpose as a human being? (p. xvii)

Increasingly during the interview process, these questions guided my reading and coding practices. I found myself continually drawn back to them in my analysis and in the subsequent exchanges I had with program participants. That said, I also found that being "connected to the rhythms of the earth" took on other forms perhaps overlooked in Thomashow's discussion. The concept of ecological identity appears to be drawn solely from the personal (read: human) experience of the natural world, such as childhood memories, perceptions of wilderness, and reactions to the ecological crisis (Thomashow, 1996, p. xvi). David Greenwood (Gruenewald, 2003) reveals the ecocentric dimension of this identity-building: the recognition that "places themselves have something to say" and thus, he emphasizes that "learn[ing] to listen (and otherwise perceive)" (p. 624) the more-than-human world is central to the ecological self. There were several instances that affirmed the ecocentric and relational dimensions of the ecological identity work that I saw happening around me. For example, when a focus group was interrupted by house sparrows, the following exchange occurred:

> Penelope: Yeah the birds - they want part of it…
> All: [Laughter and nodding]
> Andrew: Yeah let's bring them in here - get their opinion.

It might be easy to pass off such interspecies exchanges as mere humour, which was certainly a characteristic of the program community, but these are cases where the nonhuman world had to first be *noticed*. In this particular case,

the birds were not immediately visible and thus they had to be heard—or "otherwise perceive[d]" (Gruenewald, 2003, p. 624). What does it take to get interrupted by the voices of birds?

Yi-Fu Tuan (1990) discusses the vulnerability and awe we experience in nature as a result of our auditory sense. During a focus group, Phoebe, a Good Shepherd HOMES tenant offered comments that revealed the impact of leaving one auditory landscape for another:

> It was nice being out away from the city. Away from the sirens and the police car and everything else, you know. It's nice to get out in nature, you know, and stuff like that. I really enjoy [being] out and doing things.

With regard to increasing the accessibility of Operation Wild programming, Penelope also emphasized auditory engagement: "And if you're visually impaired and you come ... how could you make that person see what you're actually describing, without them actually seeing it?"

One might argue that Tuan's (1990) concept of topophilia—"the affective bond between people and place or setting" (p. 4)—is sufficient to describe the experiences of Operation Wild participants, but that would fail to take into account the ecological worldview wherein someone can experience the ecosystem as "part of oneself" (Thomashow, 1996, p. 12). Perhaps Operation Wild participant Paul said it best when he revealed:

> For me, all I can say is, it feels like that's where my roots are as a human being. As a living being. And, I can sum it all up as I don't call it 'Cedar Haven' farm, I call it 'Cedar Heaven' farm—that's how I feel when I'm there, well, and most outdoor places too.

He added:

> What you folks are doing at the farm is really interesting, because that's what we all did naturally 2-3-4 hundred years ago … on our little plots, on our little farmlands, we were connected to the land … now we're trying to figure out how to do that again, but we're kind of moving more the other way generally.

Penelope discussed the way that she spends time crossing different landscapes, using old rail tracks in and near the city. Even though she has struggled with how land has been developed and impacted by human settlement, walking the rail tracks is a way that she has felt connected to the earth:

> So for me, it's about seeing that track that goes between two pieces of land, which is pretty amazing—like, I mean, stuff has to be transported somehow, so I get it, but, yeah so for me I think, part of the—land has always been part of … who I am. I think that's important.

The engagement with the earth expressed here situates the self in terms of where things come from and how one experiences profound moments of

connection. What differentiates ecological identity from place attachment in these comments is the focus on the general, ongoing connection to the planet we inhabit, rather than on the specific particularity found in examples of place attachment. The "roots" Paul described are embedded in various "outdoor places," while Penelope described the way that land and the paths across it are a part of who she is.

In Thomashow's (1996) "Trees of Environmentalism" (p. 25), the leaves represent various approaches to environmental thinking, such as ecofeminism and deep ecology. Branches of the tree constitute major disputes in the conceptual framing of environmental work, such as the preservation–conservation debate. I offer these as examples of how the tree serves as a metaphor, but I would like to focus on the roots. For, it is in the roots that my argument diverges most dramatically from Thomashow's. Thoreau, Muir, and Carson make up the roots of Thomashow's tree. And while I appreciate the contributions of these three, I question the long-standing tradition of Western environmentalists paying disproportionate attention to Western environmentalism (Bargout, 2019). Moreover, these archetypal figures have undoubtedly generated thinking rooted in Euro-American cultural elitism and the belief that Western science, which caused the ecological crisis, holds the only solution to the problem (Lowan, 2011). The first—and most glaring—problem with this is the way it silences the work of relational care that the Indigenous peoples of Turtle Island have provided since time immemorial. And second, there is a sense in which this makes invisible the land itself. To reiterate Paul's words: "it feels like [the outdoors is] where my roots are as a human being." Thus, environmentalism is not some theoretical disposition that arises in a vacuum, void of influence from the living, breathing bodies around us; it most certainly is guided by the pedagogical work of land (Simpson, 2014); it is always awake to the breathing body of earth itself (Abram, 2011). Inspired by the work of Martin Buber, Scott (2011) posits that relational ecological identity emerges out of dialogue with the members of our neighbouring ecologies. Environmentalism is not merely, as Rachel Carson would have it—as important as her work is—a response to violence *against* earth. Rather, it is a visceral reaction to the love of and relationship *with* the land. It is time we sought out the actual roots; it is time we got digging.

Thomashow's understanding of the ecological self emerges as a result of the work of psychologist Richard Borden. In the paper, "Ecology and Identity," Borden (1986) discusses the ways in which working in the field of ecology influences one's sense of self in terms of our membership within a broader ecological community. A crucial distinction must be made here. Borden's—and thus, Thomashow's—understanding of ecological identity focuses centrally on the human capacity to think, exhibit concern, and act (Borden, 1986; Thomashow; 1996). This emphasis on taking action establishes that the domain of agency and care rests entirely in the hands of the human actor (perhaps exclusively, able-bodied) in ecological systems. Ecological *relationship*, on the other hand,

develops on the premise that the fabric of both the local and the global system is at least as caring, thoughtful, and full of action as "we" (the human species) are. Undertaking relational ecological identity work is a step toward understanding ourselves as members (Seed et al., 2007) in a much broader community of caring, life-sustaining relationships—one that Indigenous thinkers have demonstrated is a network of relations that humans are simply "*part of*" (Lowan, 2009, p. 49, emphasis original).

Collective Becomings

Members of the Operation Wild program community demonstrated an ecological identity that was collectively produced; it emerged from an embodied connection to land. This evokes David Abram's (1997) insistence that we experience "a rejuvenation of our carnal, sensorial empathy *with* the living land that sustains us" (p. 69, emphasis added). This is not merely an individual experience, but rather an understanding of collective decision making and responsibility for all (Little Bear, 2000). Eve Tuck has referred to this as "co-generosity" (Tuck et al., 2018). Indeed, the relational ecological identity experienced by Operation Wild participants is motivated by an empathy for land, inspired by the perceptual and ecological dimensions of place (as discussed in Gruenewald, 2003, pp. 623 and 633). For several participants, such a relational identity was motivated by their childhood experiences on farms and in rural areas, thus legitimizing Tuan's (1990) claim that farmers' physical relationships to and dependence on land result in land functioning to preserve memory and "sustain hope" (p. 97). Poppy revealed long-standing memories of caring for the land through bodily sacrifice:

> Poppy: And my grandfather asked me to dig for the plants and I remember I had a big big - how do you call, you know, the—when it's filled with the liquid?
> Sarah: Blister?
> Poppy: Blister! Oh god, so so bad. Because I was doing so much! hahaha, it took a while to heal…
> Me: Ooh yeah
> Sarah: Mmm
> Me: So gardening has been in your life a long time?
> Poppy: Yeah it has been—and my balcony is always fully flowers…

The concept of relationship can also be present in the desire for the development of ecological identity in other communities and even in later generations. Herein lies another shortcoming of Thomashow's individualistic concept of ecological identity. The Operation Wild participants demonstrate that the heightening of someone's relational ecological identity is predicated on the desire to bring the earth into relationship with *others* as well. It is not only a question of how I connect to the earth, but how we collectively connect and develop our understanding together. This is echoed in Scott's discussion of relational ecological identity, but he seems to suggest that this pedagogical work is unidirectional;

it is imparted only from teacher to student (Scott, 2011). Though the notion of intergenerational care is expressed in feminist posthumanism (Lloro-Bidart & Sidwell, 2019), ecopedagogy theory (Misiaszek, 2016), and Indigenous knowledges (Kimmerer, 2013; Kovach, 2010; Lowan, 2009; Restoule, Gruner, & Metatawabin, 2013), it has yet to be considered at the intersection of disability and ecological identity in an EE context. Relational ecological identity extends beyond the boundary of the individual; the relational community "re-members" itself (see Krasny & Tidball, 2015, p. 19 for a discussion on the re-membering of community life amidst urban decline). This was clearly demonstrated in Penelope's desire to generate a summer camp or a kind of educational training ground for the next generation:

> I think [a summer camp would] be great to have ... for kids to be able to come out ... that could be really cool for me I think—again, we're looking down the road, but that would be really cool. 'Cause that's where this starts. That's where the environment stuff starts—with those kids—it doesn't start with me. It starts with them.

Wendell Berry's advice for sustaining local communities, which is echoed in ecojustice literature (e.g., Bowers, 2001) reads, "the community knows and remembers itself by the association of old and young" (Berry, 1996, p. 413). Interestingly, the program community did not define attempts at intergenerationality as occurring solely within a family unit, as has been the case in earlier EE literature (Lloro-Bidart & Sidwell, 2019; Payne, 2010).

Relational ecological identity was displayed in novel ways, demonstrated below in Penelope's desire to speak on behalf of participants with different levels of mobility:

> Phoebe brought something up to me, and I thought of Phoebe … how do we make Cedar Haven accessible to walkers and wheelchairs without kind of, disturbing the land? …'cause you can only go so many places in your walker and your wheelchair so you don't really get the same ... equal opportunity ... so how do we make it accessible ... without disturbing that environment? ... So it [the major questions for our group/learning community] can go: what's missing and ... what prevents you from connecting? 'Cause that can be a big issue, right? Especially on a rainy day or a muddy day—like, you know, if you have a walker or wheelchair, it's really hard to manoeuvre—so I'm not sure how you could do that and still keep it environmentally friendly.

Penelope not only took up issues faced by other participants (Phoebe) who were more reluctant to share their experience, but also suggested new research questions that need to be asked. This reveals the participatory nature of the research to the extent that the questions themselves came from the participants and the research would, ideally, lead to direct benefits for them as well. Reminiscent of the interlacing of feminist, postmodernist, and critical disability theory provided by Margrit Shildrick (2015), Penelope's line of questioning also suggests the complex "co-corporeality" (p. 16) of bodies and the dependencies

on and "new becomings with others" (p. 24) inherent in and offered by the experience of disability. Inclusive EE programs must address not only bodies as entangled (Ingold, 2008) with others, but the body as an "entwined" (Shildrick, 2015, p. 16) assemblage as well. Thus, EE programming needs to consider that the participants themselves, once invited into the learning community, have essential perspectives on how programs are designed and how barriers are revealed; they not only reveal an unbounded, embodied experience of earth, but they also work to tackle the Western obsession with the individualized, autonomous self (Shildrick, 2015). These emerge out of, or are highlighted by, the social-ecological dimensions of connecting to place—described here as relational ecological identity—which shares concerns for the body *with* others: the land and all fellow participants.

Kinship and Naming

One of the other ways that relational ecological identity became evident in this study was in the desire of participants to name aspects of the landscape. The Irish poet Seamus Heaney (1980) terms this the process of attending to "personal drama" or a "communal situation" (p. 148). Certain participants of Operation Wild saw the lands of Cedar Haven as part of their story and thus wanted it to carry names and associations that might help tell that story. Insofar as participants had a relationship and a desire to commune with specific places, they wanted these places to carry names (Gruchow, 1995). Penelope offered the following comparison during the focus group:

> I think [naming the pond] makes it special from another pond. Like, it's different - it gives it some identity. 'Cause, 'The Pond' just doesn't cut it with me. It's like, if you named Arty nothing - like generic— 'the Horse'—no, it's not the Horse, the horse has a name … so the pond is also a living thing, so it should also have a name. The pond is a living part of—yeah, so it should have a name.

The process of naming also has important implications for discussions of ecological identity. Frank Vanclay asserts that "[p]laces exist when we start naming them" (Vanclay, Higgins, & Blackshaw, 2008, p. 4). This is not to negate the importance of understanding the colonial context of the place where you live and recognizing that more work needs to be done to disrupt colonial processes of naming that have disconnected places from their history (Bradley, 2015). Indeed, naming and language are essential to Indigenous land education practices (Tuck, McKenzie, & McCoy, 2014). To use a geographically relevant example, lands known as the Haldimand Tract, which bracket the Grand River, were recognized as Haudenosaunee territory in a treaty with the British Crown in 1784. However, the treaty was subsequently, in large part, ignored by the Settler government and the land stolen (Stevenson, 2018). The Haldimand Tract is in close proximity to Cedar Haven Eco-Centre; this offers an opportunity for

the program community to engage with a significant example of local Settler colonialism and treaty violation. One program participant, Penelope, declared her determination to learn about the complex history of the land that Cedar Haven operates on:

> I'd love to learn the history—as far back with this piece of land and what did it look like then compared to now. And what was it—what'd they use it for then compared to now. Like, what was it then, like, did it have cattle, did it have … what was it? … And how does that affect how the land is today?

This sentiment echoes Tuan's (1979) claim that understanding the past is an important prerequisite to one's love of place. Evidently it can also help Settler communities engage in the work of decolonization. Indigenous scholar Dolores Calderon (2014) emphasizes the way in which place-based pedagogy can serve to "disappear" (Tuck et al., 2014, p. 7) past and present acts of Settler colonialism that remove Indigenous peoples, knowledges, and ways of being from land. Sandra Styres (2018) similarly encourages a process of "journeying" (p. 29)—that is, finding the stories and knowledges embedded in the land and acknowledging the rupturing caused by colonial encounters within which Settlers and Indigenous people alike are still implicated (Little Bear, 2000).

The kinship inherent in relational ecological identity recognizes individual identities in nonhumans and invites them into these constellations of relations through a collective process of recognition and naming. This kinship may also, where necessary, call into question colonial processes of naming in order to reconnect place and story. Rather than being a colonizing force, the emphasis on naming was a way for Operation Wild participants to engage in the concept of landfullness, which involves embracing the idea that "relating to the land is a part of who we are" (Baker, 2007, p. 249).

Conclusion

Everyone has the potential to experience and exhibit relational ecological identity. The participants in Operation Wild prove that relational ecological identity is not limited to those who are empowered by a Western, neoliberal political economy. Indeed, ecological identity does not emerge as a result of having had access to summer camps, outdoor education, eco-tourism, or other sites of privilege—though it can, perhaps, be prompted by critical educators or participants at any of these sites. That said, it is a matter of a deep human need, long forgotten by some, to sense; to listen and to hear; to mourn and celebrate the passing of time measured not in the ticking hands of a clock but rather by the glistening dew drops, the staccato notes of sparrows, and the steady cadence of perennial plants. Relational ecological identity is the lesson we all must learn if we are to inhabit places in a good way. This identity is one that seeks to

undermine colonialism, which Donald (2009) understands to be a "project of dividing" (p. 4) and a "preoccupation with individual imagination and identity" (p. 8). Vanessa Andreotti (2016) paraphrases this as "a denial of relationship and ... an atrophy of the senses" (p. 81). Given the recent scholarship on Indigenous cultural appropriation at summer camps (Clarke, 2018) and my own comments concerning A Rocha's Christian roots and attempts to decolonize, this presents a significant area for future inquiry within EE scholarship. Further research is needed on the ways in which Christian or other religiously affiliated organizations are engaging with and being informed by Indigenous peoples and intellectual traditions.

The key findings of this paper ground themselves in the study of the Operation Wild program to provide the basis for a critique of the way ecological identity has previously been theorized as merely the solitary experience of a human self connecting to nature. I suggest a new theory of relational ecological identity as one that is necessarily interactive and interdependent with one's human community as well as with the more-than-human world. This has interesting implications for the concept of ecological identity within EE insofar as it moves programs toward a deeper empathy for future generations, new understandings of citizenship, and the recognition of interdependence with diverse (human and nonhuman) communities. Perhaps noticing "the bird in the tree" is not merely a symptom of the ecological self, but a prerequisite to these ethical and relational commitments. It is these relationships—these connections to land and fellow beings—that are, in fact, at the root of the tree; they are at the root of our environmentalism.

Notes

All names used in this paper are pseudonyms. Institutional ethics approval was granted through York University, Good Shepherd Centres of Hamilton, and A Rocha, Canada.

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Implementation of the Bondar Report: A Reflection on the State of Environmental Education in Ontario

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Abstract

The 2007 Bondar Report, Shaping Our Schools, Shaping Our Future*, generated a vision for environmental curricula in Ontario. It has been the basis for the mandated framework introduced in 2009 by the Ministry of Education for environmental education (EE) in all Ontario schools. Based on our research and personal reflections, this paper provides a summary of the recent developments concerning EE curricula in Ontario's schools. It also identifies the key institutional elements which contribute to and influence the course of EE implementation and focuses on their role in the development of environmental curricula in the province.*

Resumé

Le rapport Bondar de 2007, Préparons nos élèves – Préparons notre avenir*, proposait une vision pour intégrer l'éducation environnementale au curriculum ontarien, vision qui a servi de base à la Politique d'éducation environnementale pour les écoles de l'Ontario adoptée par le ministère de l'Éducation en 2009. À partir de nos recherches et de nos réflexions personnelles, nous faisons dans cet article le point sur l'évolution de l'éducation environnementale dans les établissements scolaires de la province, en plus de faire ressortir les grands aspects institutionnels qui viennent jouer sur l'intégration de ces enseignements, en insistant au passage sur leur rôle dans la conception d'un curriculum pour l'Ontario.*

Keywords: environmental education, Bondar Report, Ontario, curriculum, K–12 schools

Mots-clés : éducation environnementale, rapport Bondar, Ontario, curriculum, maternelle à 12e année

Introduction

The late 1960s was a time of generally increased salience of environmental issues. This came as part of a social movement whose advocates had begun to demonstrate concern about human impacts on the environment. Accordingly, expectations that schools should incorporate greater emphasis on environment into their curricula began to appear in a variety of countries (Gough, 2013; Palmer, 1998). The first elements of the institutionalization of environmental education (EE) arose with the development and implementation of new curricula and initiatives, such as the 20-day IUCN/UNESCO International Working Meeting on Environmental Education in the School Curriculum, held in 1970 at

the Foresta Institute, Carson City, Nevada (IUCN, 1970). Over time, the conceptualization, pedagogical development, and implementation of EE has evolved in response to changing priorities and political challenges (Hudson, 2001; Sauvé, 2005).

In 1973, the Ontario Ministry of Education (OME) introduced environmental science courses into the province's elementary and secondary schools. In the two decades that followed, and with increased outdoor education opportunities for students, the environment held a significant position in school curricula. However, as neoliberalism began to dominate educational approaches to curricula in the second half of the 1990s (Basu, 2004; Sattler, 2012; Winfield & Jenish, 1999), funding and infrastructure for outdoor education programs were cut (Borland, 2014, 2015; Kopar, 2013). Public concern over the "patchwork approach" to environmental education (EE) (Environmental Education Ontario, 2003; Puk & Behm, 2003) followed the removal in 1998 of the two Environmental Science courses which had been offered as electives in Ontario secondary schools (in Grades 10 and 12) (Cundiff, 1989; Puk & Behm, 2003; Puk & Makin, 2006). By 2000, EE was not a priority in provincial education policies and, despite the decision by the OME to "infuse" environmental content broadly into other subjects (Puk & Makin, 2006), canvasses of teachers indicated that little environmental focus found its way into the classroom (Puk & Behm, 2003).

The key response to the situation came in 2007, when the OME's Curriculum Council formed a Working Group on Environmental Education, chaired by Roberta Bondar. One of its objectives was "to analyze needs and research successful approaches to teaching and learning about the environment in elementary and secondary schools" (OME, 2007a, p. 3). The working group's report, *Shaping Our Schools, Shaping Our Future*, also known as the "Bondar Report," provided a new vision for policy and curricula (OME, 2007a). The most far-reaching of the Bondar Report's recommendations was to "increase the cross-curricular focus of environmental education by embedding environmental expectations and topics across all subjects, disciplines, and grades" (p. 14). This aligned with the earlier directive found in the 1987 report titled *Our Common Future*: "Environmental education should be included in and should run throughout the other disciplines of the formal education curriculum at all levels—to foster a sense of responsibility for the state of the environment and to teach students how to monitor, protect, and improve it" (WCED, 1987, p. 113). Among the other recommendations of the Bondar Report were calls for increased curricular attention to inquiry-based learning, action projects, and real-world engagement.

The Bondar Report also recommended the operational definition for EE, which guided subsequent initiatives: "education about the environment, for the environment, and in the environment that promotes an understanding of, rich and active experience in, and an appreciation for the dynamic interactions of:

- The Earth's physical and biological systems
- The dependency of our social and economic systems on these natural systems
- The scientific and human dimensions of environmental issues
- The positive and negative consequences, both intended and unintended, of the interactions between human-created and natural systems" (OME, 2007a, p. 6).

In response to the Bondar Report, the OME released a statement on standards for EE (OME, 2008) and a policy framework, *Acting Today, Shaping Tomorrow: A Policy Framework for Environmental Education in Ontario Schools* (OME, 2009). These provided goals, strategies, and actions for the mandated implementation of EE in all Ontario schools. They included changes in or to teaching and learning, student engagement and community connections, and environmental leadership. They also called for the adoption of an integrated approach to EE, embedding environmental expectations throughout the curriculum. Subsequently, EE resource documents and guides to aid in the policy's implementation have been prepared and updated (OME, 2007b, 2017a, 2017b). The development of Ontario's EE policy parallels policies emerging elsewhere in Canada (British Columbia Ministry of Education, 2007; Cirkony, 2015).

Faced with continuing impediments to the incorporation and implementation of EE in Ontario's schools, a number of research studies have been undertaken focusing on the enduring challenges of such endeavours (Beckford, 2008; Chowdhury, 2015; Inwood & Jagger, 2014; Karrow & Fazio, 2015; Mnyusiwalla & Bardecki, 2017; Pedretti & Nazir, 2014; Steele, 2011; Tan & Pedretti, 2010). Overall, despite the focus in recent policy initiatives concerning environmental education, EE is not yet perceived as flourishing in Ontario schools.

That there are significant constraints to effective implementation of EE has been recognized for some time in a variety of jurisdictions (Anderson & Jacobson, 2018; Evans, Whitehouse, & Gooch, 2012; Ham & Sewing, 1988; Taylor et al., 2019). For example, Ham and Sewing (1988) identified four classes of barriers: conceptual (i.e., a lack of consensus and misconceptions about the nature of EE); educational (i.e., a lack of commitment to EE and/or a sense of a lack of capacity and competence in addressing the subject); logistical (i.e., the lack of instructional materials and other resources, funding, and preparation time); and attitudinal (i.e., attitudes about the environment and EE). These sorts of challenges remain for each of the institutional contributors in Ontario as well as for the many individual educators and others in the province who are committed to promoting environmental literacy and knowledge and improving students' learning experiences.

This paper is a reflection on the development and state of EE in Ontario schools. It identifies the key institutional elements which contribute to and influence the course of EE implementation and focuses on their role in the delivery of environmental curricula in the province. Existing barriers to the successful implementation of EE are examined and responses to the challenges are offered. We identify a number of institutional contributors to implementing EE in Ontario's schools (Figure 1). Our observations and reflections on each are discussed below.

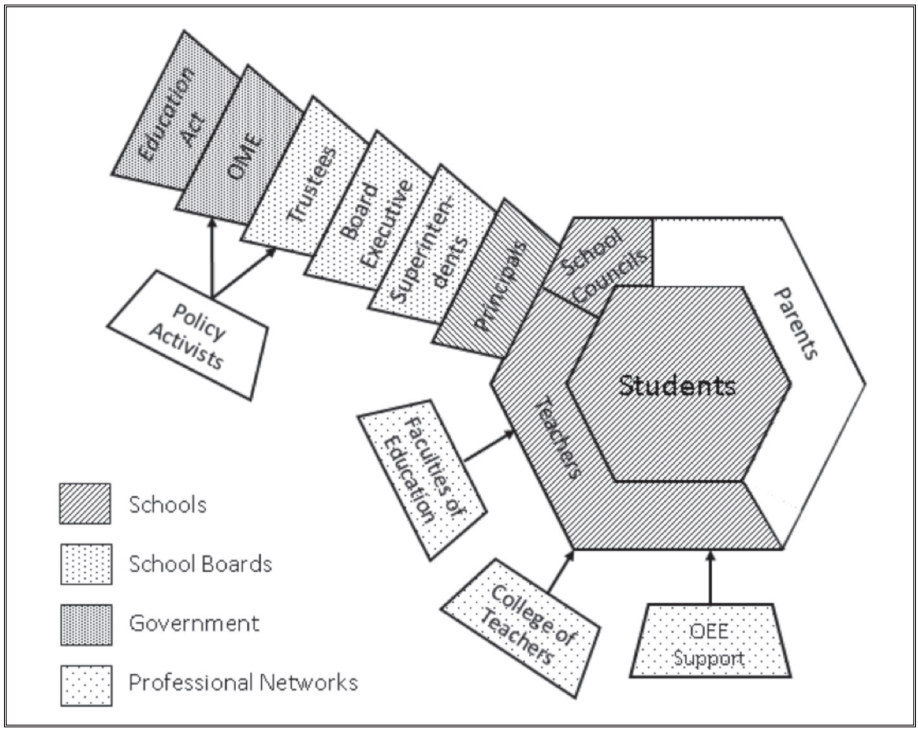

Figure 1. Implementing Environmental Education in Ontario's Schools: The Institutional Framework; OME: Ontario Ministry of Education, OEE: outdoor and experiential education

The Ministry of Education

The Ontario Ministry of Education administers provincial law and policy concerning education in the province. Specifically, under the provisions of the

Education Act, the Ministry is responsible for the following: setting and administering policies and guidelines related to the provision of education; overseeing the funding model for school boards; and developing curriculum. As noted above, it is through its influence on curriculum that the Ministry has had the greatest impact on the state of EE in the province.

A close reading of the curriculum expectations in OME's curriculum documents for individual courses demonstrates that themes related to EE may be entirely absent (Litner, 2016) or are widely dispersed. At the secondary level, content is concentrated in a small number of courses (particularly Science, Geography, and Green Industries). Moreover, only a small proportion of the content relating to expectations for EE and which appears in the curriculum documents (at least at the secondary level) is prescribed (Mnyusiwalla & Bardecki, 2017). While the documents outline possible avenues which may be used by teachers (e.g., examples which may be used in class, and questions which can be posed), much of the material is optional. In addition, it has been noted that existing barriers to the inclusion of EE content in the classroom must be overcome. These include teachers' lack of confidence about the subject and a dearth of resources for implementing EE within an overcrowded curriculum (Chowdhury, 2015; Karrow and Fazio, 2010; Tan & Pedretti, 2010).

Teachers and principals have expressed concern regarding the level of awareness among teachers about the curriculum documents. Few educators have a deep understanding of their content (Chowdhury, 2015; Mnyusiwalla et al., 2016). It is apparent that the shared vision of EE developed by the Ministry of Education has not been adequately transmitted to those who work most closely with students.

Another issue relates to the call by the provincial government for the introduction of "measures accountability." They have placed great weight on numeracy and literacy, with the results reported in the context of measuring the international performance of education systems (OECD, 2017). The public interprets these scores as measures of the performance of schools, educators, and students. Because EE subject material and requirements were not included among the scored elements, many education experts concede that EE subject material and requirements were made a low priority in the curriculum (Mnyusiwalla et al., 2016).

In the absence of baseline information of students' environmental knowledge and literacy, environmental educators in the province have called for environmental literacy assessment for both elementary and secondary schools (Igbokwe, 2012). Standardized testing came to Ontario after one of the largest public consultations in Canadian history (Green, 1998) and the release of *For the Love of Learning* in 1995 by the Royal Commission on Learning, formed in 1993 to "ensure that Ontario's youth are well-prepared for the challenges of the twenty-first century" (Royal Commission on Learning, 1995; Volante, 2007). With the increasing recognition that environmental issues represent one of the

most acute crises of the coming century, one might argue for recognition of EE as central to the development of "well-prepared" youth. In an overcrowded curriculum, this is unlikely.

Policy Activists

Policy activists are those who mobilize not only to effect transformative change in the policy environment by addressing specific problems but also to get those issues and their preferred solutions onto public and policy agendas (Klugman, 2011). A variety of policy activists focused on education and environmental issues provide considerable weight in the province's discussion about EE. Although they are often underpublicized and reliant heavily on membership fees and volunteer efforts, a number of organizations play a significant role in championing EE at the provincial and Board levels. These include:

- Environmental Education Ontario (EEON) (http://www.eeon.org/);
- The Canadian Network for Environmental Education and Communication (http://eecom.org/);
- The Council of Outdoor Educators of Ontario (COEO) (https://www.coeo.org/);
- The Ontario Association for Geographic and Environmental Education (https://oagee.org/en/); and
- The Ontario Society for Environmental Education (http://home.osee.ca/).

Moreover, the Ontario Teachers' Federation and the teachers' unions, i.e., Ontario Secondary School Teachers' Federation (OSSTF), Elementary Teachers' Federation of Ontario (ETFO), Association des enseignantes et des enseignants franco-ontariens (AEFO), and Ontario English Catholic Teachers' Association (OECTA), have each played a role in influencing policy generally and in promoting EE knowledge and literacy.

School Boards and Trustees

The 72 school boards in the province are responsible for: the supervision and operation of publicly-funded schools; the provision and management of teaching programs in response to the needs of their schools' communities; and the hiring and performance appraisal of teachers. The school boards are composed of Trustees—elected officials who form the decision-making body of each board. They and the boards' administrative executive provide system-wide oversight of and direction to schools. Academic superintendents normally oversee a cluster of schools, monitoring them and coordinating with school principals.

The Bondar Report called on school boards to develop "a board-wide framework for environmental education reflecting the board's culture and

that of its community and partners" (OME, 2007a, p. 12). Yet, supporters of environmental education in the province have identified problems with the decreasing priority school boards have given to EE, claiming that a shift in priorities to get "back to the basics," along with budget cuts, has reduced or eliminated outdoor education.

Many boards have made considerable progress on incorporating environmentally sustainable practices in the management and operations of their properties and buildings. However, many of the most cited board-level initiatives, such as EcoSchools, EarthCARE™, and Energy W.I.S.E. (Gillespie, 2006), as well as ongoing initiatives such as integrated Environmental Studies Programs (Breunig, Murtella, & Russell, 2015; Sharpe & Breunig, 2009), predate the Bondar Report. Some boards have mandated school participation; however, the early adoption and success of these initiatives are generally predicated on the ease of quantifying and monitoring goals' attainment and performance and the presence of someone on staff who is passionate about the environment and willing to volunteer time to make it successful.

The OME mandates that school boards' improvement plans are renewed and revised annually. Concern has been expressed by many education experts over the lack of board-level EE planning in these initiatives; the lack of accountability in the process has been seen as an issue (Mnyusiwalla et al., 2016). The result of such a dearth of liability can be a disconnect between provincial policy on EE and its implementation (though course offerings and programming, curriculum development, school-level initiatives, and community partnerships). The *Acting Today, Shaping Tomorrow* policy document (OME, 2009) provides for the use of short-term, mid-term, and long-term status indicators, facilitative indicators, and effect indicators for measuring progress and assigning accountability in EE. However, the responsibility and support for ensuring that EE policy goals are met are not assigned consistently.

OME statistics (OSIS, 2013) on course availability and enrollment beyond the compulsory courses provide some insight into the effectiveness of EE progression and integration into the curriculum. The Bondar Report recommended that students be offered opportunities to pursue EE in the senior grades (11 and 12) in order to provide continuity with material introduced in earlier grades and to reinforce the importance of EE (OME, 2007a). The reality is that the courses which offer the greatest potential for EE (e.g., Environment and Resource Management, Green Industries) are often offered at a surprisingly low proportion of schools in the province (Mnyusiwalla & Bardecki, 2017). In addition, there is a high degree of variability among schools. Innovative programs—such as the Specialist High Skills Major – Environment program (Breunig, 2013; OME, 2016), which allows secondary school students to focus their learning on a specific field of interest while earning certifications and being involved in cooperative education placements—are unevenly available.

Schools

In school systems, which are generally organized in a hierarchical and siloed fashion, educators often have difficulties establishing a distinct identity for subjects such as EE. Additionally, such subjects often fail to achieve a status comparable to more established areas of study. Stevenson (2007a) has outlined the existence of four sets of contesting lenses through which EE can be seen as diverging from traditional education:

- The social and cultural purpose of schooling: Although EE presses for an insurgent approach which pursues reform, schools tend to reinforce the status quo.
- Curriculum and pedagogical practices: Although EE stresses cooperative and collaborative strategies with an emphasis on creative and critical thinking, schools focus on individual achievement in their content-based approaches.
- School organization: The paradigms and questions which are at the core of EE demand an appreciation of ambiguity. Such an idea is at odds with schools' focus on efficiency and proficiency.
- Curriculum and pedagogical ideologies: Environmental literacy more readily accommodates other knowledges than do traditional curricula promoted by schools, which tend to be biased toward providing technical-rational or high-status knowledge.

Environmental education is fundamentally interdisciplinary in its foundational approach and knowledge base. It requires systems thinking and field study. Indeed, it has been suggested that EE demands "whole school approaches" (Tilbury & Wortman, 2006) and the nurturing of strong communities of practice within schools and beyond (Roth & Lee, 2004; Stevenson, 2007b). The lack of collaboration between departments required for successful EE, particularly at the secondary school level, has been seen as an issue by many education experts (Mnyusiwalla et al., 2016).

Principals acknowledge the importance of recognizing volunteer efforts to maintain enthusiasm and reinforce the positive benefits coming from these activities (Mnyusiwalla et al., 2016). Indeed, much of the success of EE programming, in class and elsewhere, takes place at schools and is a direct result of voluntary activity on the part of teachers, students, and administrators. The success of programs such as Ontario EcoSchools certification program and Forest Ontario's Ontario Envirothon (https://www.forestsontario.ca/education/programs/ontario-envirothon/) is directly related to these actions.

Social, economic, and geographic disparity among schools means that some school communities are more readily mobilized and better able to advocate for EE objectives. In these better-mobilized school communities, environmental issues can be more salient for parents. Likewise, students can better navigate their own environmental interests in these school communities. Other schools

may be targeted for special attention; for example, teachers involved in the Model Schools for Inner Cities program with the Toronto District School Board (TDSB) focused their efforts on high-priority schools, aiming to make the environment literacy a priority and empower students to shape their communities (Mnyusiwalla et al., 2016).

Theoretically at least, it is easier to integrate EE into the primary curriculum since a single teacher may be responsible for the bulk of the curriculum. With leadership, elementary schools—where individuals are responsible for a range of disciplines—may be at an advantage for realizing environmental objectives (Mnyusiwalla et al., 2016); the compartmentalized nature of disciplines in secondary schools may not be as conducive to collaborative efforts.

Principals and Teachers

There are wonderful examples of innovation and leadership in EE from schools across the province. Teachers have developed a myriad of approaches to communicating EE in and out of the classroom (Russell, Bell, & Fawcett, 2000; Steele, Hives, & Scott, 2016). However, there are substantial challenges to incorporating EE within schools (Spence, Wright, & Castleden, 2013); these are similar to those noted elsewhere, for example in Australia (Pearson, Honeywood, & O'Toole, 2005), the United States (Ham & Sewing, 1988), and England and Wales (Summers, Childs, & Corney, 2005).

Perhaps the key among all the perceived barriers to implementing EE is the overcrowded curriculum, resulting in educators' inability to adequately meet all course requirements. The EE curricula largely lack prescription; as mentioned above, there are opportunities to incorporate EE but it is not required (Mnyusiwalla & Bardecki, 2017). With an already overcrowded curriculum and the time constraints placed upon teachers (Tan & Pedretti, 2010), opportunities to incorporate EE are being omitted in favour of other priorities, such as literacy and numeracy. The result may be, at best, a "shallow integration" of EE into the classroom (Pardy, 2010).

The translation of expectations from principals to their teaching body and efforts to develop greater coherence across and among subject areas and grade levels are not always priorities (Mnyusiwalla et al., 2016). There is also a dearth of EE leadership: between teacher and principal, in the relationship between the board and academic superintendents, as well as between superintendents and principals.

The level of expertise and comfort among the broad swath of teachers confronted with integrating EE into their course curricula is also an issue. The need for more professional development opportunities for educators on environmental aspects of curriculum and more research that focuses on teachers of EE has been acknowledged by education experts (Mnyusiwalla et al., 2016; Pedretti & Nazir, 2014). In the absence of recognition of EE as a teachable subject, few teachers self-identify as "environmental educators" (and even fewer would be

recognized as such). Outside those involved in the Specialist High Skills Major – Environment program (OME, 2016), students, regardless of the degree of their participation in senior environmental electives and their career aspirations, do not identify with environment as a subject area. Even at the minority of secondary schools which do offer the Environmental Science courses (SVN3E and SVN3M), for the individual educator there is generally no community of teachers with whom to collaborate (Mnyusiwalla & Bardecki, 2017).

Time for teachers to develop practical resources is extremely limited. Such a quest is in competition with numerous other demands. However, resources to support EE in classroom and outdoor education are widespread and accessible. Not only does the OME provide curriculum support (OME 2007b), but professionally developed lesson plans and other materials can be readily found in a wide variety of sources, including:

- Ontario EcoSchools (https://www.ontarioecoschools.org/);
- Learning for a Sustainable Future (http://www.lsf-lst.ca/);
- The Ontario Institute for Studies in Education (http://www.oise.utoronto.ca/research/index.html);
- The Environmental Literacy Council (https://enviroliteracy.org/teachers-index/);
- The Royal Canadian Geographical Society (http://www.rcgs.org/programs/education/lesson-plans.asp);
- Green Teacher (https://greenteacher.com/);
- Local conservation authorities, e.g., Ausable-Bayfield CA (http://www.abca.on.ca/page.php?page = lesson-plans);
- The Ontario Society for Environmental Education (http://home.osee.ca/);
- Ducks Unlimited (http://www.ducks.ca/resources/educators/);
- Evergreen (https://www.evergreen.ca/tools-publications/teachers-corner/); and
- WWF-Canada (http://schools.wwf.ca/).

Faculties of Education

Many challenges have been identified in increasing educators' capacity and confidence to teach EE (Beckford, 2008; Puk & Stibbards, 2010). Pre-service education has been identified as an important aspect in developing EE in schools (Inwood & Jagger, 2014; Pedretti & Nazir, 2014). Through their mandate to grant undergraduate (and graduate) degrees, the faculties of education across the province are the principal means by which teachers receive professional education and training. Programs are overseen by the Ministry of Training, Colleges and Universities (MTCU) and are certified under the guidelines and requirements of the Ontario College of Teachers (OCT).

Discussions at a roundtable hosted by the Ontario Institute for Studies in Education (OISE) in 2013 sought to build on the vision of the Provincial Policy Statement (OME, 2009). The OISE meeting specifically pursued a strategy for

responding to the perceived need for changes with respect to EE in pre-service teacher's education programs (Inwood & Jagger, 2014). Key to the discussions was concern over the degree of unpreparedness felt by many teachers to implement EE in their classrooms, and the opportunities provided by (then) new initiatives to restructure pre-service teacher education in the province.

The National Roundtable on Enhancing Environmental and Sustainability Education at Canadian Faculties of Education, hosted at Trent University in June 2016 (Karrow & DiGiuseppe, 2020), and the Canadian Network for Environmental Education and Communication's Standing Committee on Environmental & Sustainability Education in Teacher Education in Canada (http://eseinfacultiesofed.ca/) both speak to the need for a refocusing of EE in pre-service education. The faculties of education have a significant role to play in helping teachers understand the OME's integrated curriculum model and how to respond through their course preparation and teaching. In the absence of a clear mandate to address EE goals and responsibilities, faculties of education have experienced challenges integrating EE into their curricula for pre-service teachers. Thus, it is often interest by individual faculty members which drives incorporation of EE into the pre-service teaching curriculum (Council of Ministers of Education Canada, 2012). Although there are important conversations underway and significant innovations in faculties of education (DiGiuseppe et al., 2016; Falkenberg & Babiuk, 2014; Sims & Falkenberg, 2013), as yet little consistency exists among the various faculties in their approach to EE. Currently, only York, Western, and Lakehead Universities offer Environmental Science as a teachable subject in their pre-service education programs.

Ontario College of Teachers

The Ontario College of Teachers (OCT) is the professional accreditation body for the province's teachers. As noted above, faculties of education must certify their students as per the guidelines and requirements of the OCT. Potentially, OCT's authority over curricular goals could provide an opportunity to advance EE awareness and capacity among pre-service teachers and ensure a more consistent response from the faculties of education.

Currently, the OCT does offer the means by which individual teachers can increase their capacity in EE. This is accomplished through accredited Additional Qualification (AQ) courses in EE for in-service members of the Ontario College of Teachers (in Environmental Science/Environmental Studies, Green Industries, and Specialist and Honour Specialist designations for teachers seeking to focus on leadership and curriculum development).

Outdoor and Experiential Education Support

Of particular concern is support for outdoor and experiential education (OEE) (Foster & Linney, 2007). The Bondar Report states that: "Outdoor education

is … seen as a distinct and critical component of environmental education, concerned with providing experiential learning in the environment to foster a connection to local places, develop a greater understanding of ecosystems, and provide a unique context for learning" (OME, 2007a, p. 6).

This concern is reflected in the provincial *Standards for Environmental Education in the Curriculum* (OME, 2008), in which OEE is a major focus of attention. Despite the notional support found in this document, the number of expectations involving field study which appear in the current provincial secondary curricula is remarkably limited (Mnyusiwalla & Bardecki, 2017).

Some faculties of education offer courses and practicum placements in OEE (e.g., Lakehead University's Outdoor Ecological and Experiential Education and Queen's University's Outdoor & Experiential Education) to introduce teacher candidates to education approaches suitable to a variety of school and community-based settings. In addition, the OCT has introduced Additional Qualification in OEE. In practice, OEE can require professional development time to develop locally-relevant or personalized resources that are region-specific. In addition to the conventional resources available online, numerous formal programs and support resources are available at developed education centres and other locations. Examples include:

- School boards, e.g., Toronto District School Board (http://www.tdsb.on.ca/HighSchool/Yourschoolday/Outdooreducation.aspx); **Ottawa**-Carleton District **School Board (http://www.ocdsb.ca/cms/one.aspx);**
- Sudbury Catholic District School Board (http://outdoored.scdsb.edu.on.ca/)
- Conservation authorities, e.g., Toronto and Region Conservation Authority: (https://trca.ca/learning/teacher-resources/);
- Ontario Science Centre (https://www.ontariosciencecentre.ca/school/curriculum/chart/);
- Conservation centres e.g., *rare* Charitable Research Reserve (http://raresites.org/); and
- Non-governmental organizations, e.g., the River Institute (https://riverinstitute.ca/river-institute/education/education-programs/).

Most such organizations providing out-of-school locations offer unique programming, non-traditional learning for students, and professional development opportunities for teachers. They face obstacles, however, including: overcoming safety and comfort concerns; increasing teacher, student, and parent comfort levels with the outdoors; fostering teacher engagement; encouraging and inspiring students; shifting the focus of outdoor education from encouraging recreation to promoting environmental literacy; addressing the complexities of field trip logistics and paperwork; guaranteeing accessibility (particularly in the case of urban schools); and ensuring adequate sources of funding (Mnyusiwalla et al., 2016).

Moving Forward

The Bondar report and OME policy have given direction and substance to the advancement of EE in Ontario's schools. Since the release of the report, the various institutions involved in education in the province have responded by increasing the opportunities for EE in schools. While it is important to recognize and celebrate the progress which has been achieved, there remains a need for the OME to facilitate the shared vision of EE—as articulated in the Bondar Report and in subsequent provincial policy statements—to all involved and to address issues of capacity and resource requirements to advance EE. Key policy activists outside the formal education system, as well the Ontario Teachers' Federation and the teachers' unions, are positioned to play a significant role in championing EE at the provincial and Board levels.

The Bondar Report called on school boards to develop "a board-wide framework for environmental education reflecting the board's culture and that of its community and partners" (OME, 2007a, p. 12). Yet, a decreasing priority given to EE by school boards, a shift in priorities to get "back to the basics," and budget cuts that have reduced or eliminated outdoor education have been seen as impediments to establishing EE at the school level. Even as boards valorize environmentally sustainable practices in management and operations of properties, concern has been expressed over the lack of board-level accountability for EE in schools. Particularly notable are the constraints resulting in failure to fully embrace the Bondar Report's recommendation to reinforce the importance of EE and to ensure students have the opportunity to pursue EE throughout secondary grades. The continuing development and broadening of collaboration among the diversity of institutions and individuals involved must be improved upon. Board and school improvement plans provide opportunities for EE initiatives to be prioritized

There is an as-yet-underdeveloped case for integrating EE with other streams of concern in schools. EE aligns closely with many aspects of OME priority for education in the province. The curriculum review process provides opportunities for the integration of elements of EE with other priority areas of emphasis in the curricula, such as:

- Global citizenship (Schweisfurth, 2006);
- Social-ecological resilience (Krasny, Lundholm, & Plummer, 2010);
- Social change (Tan, 2012);
- Well-being (Guhn, Gadermann, & Zumbo,, 2010; Hayward et al., 2007);
- Reconnecting with nature (Foster & Linney, 2007);
- Physical activity (Dyment & Bell, 2007; Fjørtoft 2001);
- Indigenous knowledge (Lowan, 2009; Simpson, 2002); and
- Science, technology, engineering and mathematics (STEM) (Steele, 2014).

There is a strong basis for the connections between these areas and EE. Policy activists, education leaders, and faculties of education have opportunities to encourage the Ministry, boards, and schools to further interlace EE into the curriculum structure of schools in the province. Indeed, as Orr (1992, p. 90) declares, "all education is environmental education."

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A Collective Case Study into the Use of Social Media as a Tool for Developing Sustainable Living Habits in Urban Families

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Abstract

Living sustainably is not easy for urban families. This mixed method collective case study looks to explore the development of habitual ecological action in families living in an urban setting, a context of socio-ecological transformation rarely examined in social science and environmental education. Given the ever-increasing popularity of social media today, this study seeks to understand the potential role of Facebook in promoting environmental action and to compare it to the use of e-mail as an Information and Communication Technology (ICTs) for the promotion of environmental action. In other words, for families already intent on living sustainably, we are interested in understanding how the use of social media could help bridge the gap between intent and action, as compared to using less network-oriented ICTs, such as e-mail. We recruited 45 families from two cities and divided them into two distinct groups. The first group of families attempted to lower their household electrical bill as part of a private Facebook group, while the other group aimed to do the same, but via e-mail instead, i.e., without the directed use of social media. For both groups, we compared the quantity of kilowatt-hours used during the project to those used for the same months in the previous year, adjusting for temperature variations from year to year. Our analysis of descriptive data shows that both groups experienced lower electricity consumption during the project months. Exit interviews help to explain these results and point to a better understand of eco-citizenship development as a process in the context of family. Our qualitative results suggest that family engagement and child participation seem to be higher in families interested in living more sustainably when these families are part of a social network.

Résumé

Vivre des modes de vie durables n'est pas facile pour les familles de milieux urbains. Cette étude de cas multiples de méthodologie mixte cherche à explorer le développement de l'action écologique dans les familles vivant en milieu urbain, un contexte de transformation socio-écologique rarement examiné en sciences sociales et en éducation environnementale. Compte tenu de la popularité croissante des médias sociaux aujourd'hui, cette étude cherche à comprendre le rôle potentiel de Facebook dans la promotion de l'action environnementale, tout en le comparant à l'utilisation du courrier électronique en tant que technologie de l'information et de la communication (TIC) pour la promotion de l'action environnementale. En d'autres mots, pour les familles qui ont déjà l'intention de développer des modes de vie plus durables, nous souhaitons comprendre comment l'utilisation des médias sociaux pourrait aider à combler le fossé entre l'intention et l'action.

Nous avons recruté 45 familles de deux villes et nous les avons divisées en deux groupes distincts. Le premier groupe de familles tentait de réduire leur facture d'électricité domestique dans le cadre d'un groupe Facebook privé, tandis que l'autre groupe visait à faire de même, mais via le courrier électronique, c'est-à-dire sans l'utilisation dirigée des médias sociaux. Pour les deux groupes, nous avons comparé la quantité de kilowattheures utilisée pendant le projet à celles utilisées pour les mêmes mois de l'année précédente, en ajustant selon les variations de température d'une année à l'autre. Notre analyse des données descriptives montre que les deux groupes ont connu une consommation d'électricité réduite au cours des mois du projet. Les entretiens de sortie aident à expliquer ces résultats et permettent de mieux comprendre le développement de l'écocitoyenneté en tant que processus dans le contexte familial. Nos résultats qualitatifs suggèrent que l'engagement familial et la participation des enfants semblent être plus élevés dans les familles qui souhaitent vivre de manière plus écologique, lorsque ces familles font partie d'un groupe de réseau social.

Key Words: eco-citizenship, environmental action, social media, sustainable living, environmental education

Theoretical Perspective

In a recent report (2018), the UN Intergovernmental Panel on Climate Change (IPCC) said that the planet will likely reach the critical threshold of 1.5 degrees Celsius above pre-industrial levels as early as 2030, resulting in a much higher risk of extreme drought, wildfires, floods and food shortages for hundreds of millions of people throughout the world, including Canada. The IPCC is calling on governments to implement widespread initiatives in energy, industry and transportation. Climate change is already happening; reversing the tide will also require behavioural change at the grassroots level, with individuals and small groups (e.g., families). In fact, the IPCC's models emphasize the need for people to change their lifestyle and consumption patterns to more sustainable alternatives, specifically in areas they can control, such as modes of transportation, their dietary preferences, and the buildings they inhabit. For example, in terms of adopting more ecological household behaviours, the IPCC suggests that families use smart thermostats and more efficient temperature control strategies.

It is becoming increasingly apparent that the environmental problems we face today are, in large part, a consequence of human activity such as overconsumption (Haines, Kovats, Campbell-Lendum & Corvalan, 2006). This overconsumption includes the use of heated air in the winter and refrigerated air in the summer. Over the past two centuries, industrial growth has made for a world dependent mainly on the burning of fossil fuels. Consequently, climate change is shaping up to be one of the most serious environmental problems of

our time, threatening the stability of ecosystems worldwide (Bristow et al., 2004). According to Whitmarsh and O'Neill (2011), in Canada and in other countries, increasing concern towards the environment does not seem to translate into concrete environmental action. Attempting to better define environmental action, Marleau (2009) cites authors such as Emmons (1997), Clover (2002) and Garcia (2004) who suggest that deciding to act in a more environmentally sound manner is rooted in competencies such as good planning and reflective problem solving. Marleau (2009) adds that such action requires an already basic level of environmental consciousness and a pre-existing intention to adopt a greener lifestyle. Given the ongoing state of non-action towards the environment on the part of well-intentioned people, we are still trying to understand how to bridge the gap between environmental awareness and pro-environmental behavior (Kollmuss & Agyeman, 2002).

Our previous work on developing environmental competency (Léger, Kerry, Pruneau & Langis, 2014; Pruneau, Kerry, Langis & Léger, 2015; Pruneau, Kerry & Langis, 2013) has given us a better understanding of the processes behind the development of such competencies as prospective thinking and environmental problem solving. We also have a more comprehensive view of the role such competencies play in adopting environmental actions. Our more recent work on digital competency (Léger & Freiman, 2016, 2015; Freiman, LeBlanc & Léger, 2017) has revealed many similarities between the skills needed to adopt environmental action and those needed for developing digitally literacy. These connections lead us to suspect a link between digital skills and developing environmental "action competency" (Jensen & Schnack, 1997). In other words, we wonder if the use of Information and Communication Technologies (ICTs) and other technologies could help one to go beyond intention and develop concrete environmental agency?

There is no doubt that environmental issues are front and center in the world today. Also at the forefront of development in today's world is the ever-increasing place of technology in daily life. Indeed, many countries are engaged in helping citizens find a place in the digital age by implementing various programs that aim to facilitate the development of digital competency. In Canada, the federal government's most recent strategy for boosting digital literacy, entitled *Digital Canada 150* (Industry Canada, 2014), emphasizes effective public policies that put forth the right conditions in order to encourage and help Canadians to take full advantage of the transformational possibilities offered in a digital future. In fact, one could argue that we are already living in the "digital future", both in Canada and across the world. According to compilation websites such as *Internet World Stats* (www.internetworldstats.com) and *We Are Social* (www.wearesocial.com), about 50% of the world's population were users of the Internet in 2017. Equally impressive are the number of people worldwide using social media, estimated by these same sources at about 2.8 billion, which represents 37% of the world's current population.

Our literature review uncovered very few scholarly articles on the topic of the potential role ICT and other technologies play in environmental agency. In fact, there seems to be a need in the literature on ecological action for more studies about the potential impact of technologies on environmental agency. Of the few studies we did find, most point to a positive influence of social media users (e.g., Facebook and Twitter) to adopt eco-responsible life practices. For example, Bell, Toth, Little and Smith (2016) found that social media can contribute to high levels of environmental consciousness in adolescents and lead to a reduction in energy use at home. These authors also noted that social media may help support efforts to adopt more environmental action when one is already in what Prochaska, DiClemente and Norcross (1992) called the "preparation stage" of their Transtheoretical Model for behavioral change (when a person is intent or ready to act in the immediate future). In another study, Sweeney, Webb, Mazzarol and Soutar (2014) showed that using social media helps to develop a sense of self-determination when trying to adopt environmental actions. Regarding Facebook in particular, Kane, Chiru amd Ciuchete (2012) state that social media can act as an efficient complementary tool when considering an ecologically friendly product or service online.

The present study of environmental agency in the context of families takes an innovative look at household eco-citizenship through the intersecting frameworks of environmental competency, environmental action, and digital skill development. In this paper, we examine what the effect would be on the development of environmental action if one's Facebook newsfeed contained regular postings both on environmental issues and on ways to develop more sustainable habits at home. Would one be more inclined to develop and maintain concrete environmental actions with such virtual reinforcements? To help answer this general research question, our study compares Facebook users with similar participants (i.e. families living in an urban setting) who receive the same virtual reinforcements, only via the less network-oriented e-mail platform.

The Family as a Context of Socio-ecological Transformation

In most countries and cultures around the world, the family is widely considered as the basic unit of social organization, despite its evolving definition in these past few decades (Le Bourdais, Desrosiers & Gaulin, 1991). For Le Bourdais, Desrosiers and Gaulin (1991), Statistics Canada's (2016) definition of a "census family" as a person or group of people "living in the same dwelling" is too unidimensional as it focusses on the place, rather than taking into account the inter-member relationships and social dynamics involved in living as a family. Other works in the fields of sociology and social psychology (Widmer, Kellerhals & Levy, 2004; Claffey & Mickelson, 2009; Neilson & Stanfors, 2014) have highlighted the place of social interaction in the healthy functioning of a family. In today's digitally heightened world, such intra-family interactions are

also subject to influences from technology. Most notably, social media platforms have significantly changed the way in which people connect with one another, and this is no different in the context of family. Given the social place of the family as a common denominator of social structure and given the influence virtual social media platforms such as Facebook, Twitter and Instagram have on interactions in and beyond the family today, we consider the family to be a very relevant context of socioecological and psychological transformation in the struggle to implement societal change towards sustainable living. Though we agree with Le Bourdais, Desrosiers and Gaulin (1991) that the definition of "family" according to Statistics Canada (2016) would be more complete by including aspects of family dynamics, this paper is not focused on family interactions per se. Rather, as indicated by the specific research objective outlined in the next section, we are more interested in the broader "family experience" of using social media to become more sustainable collectively.

Though limited, there is some research on the role of family in deciding to adopt eco-responsible actions. In Australia, the Queensland Youth Environmental Council (2009) reports that being part of a pro-environmental family represents an important factor in influencing environmental agency in youth between the ages of 12 and 24. Payne (2005, 2010) found similar results, adding that children often imitate their parents' ecological practices. Likewise, in an international study done by the Organization for Economic Cooperation and Development (OECD, 2008), it is reported that family members can influence a fellow member to adopt ecofriendly actions such as recycling. In Canada, our own work on family ecocitizenship points the importance of establishing common ecocentric family values and developing collective environmental competencies, such as prospective thinking, when trying to adopt collective environmental actions (Léger & Pruneau, 2014, 2013, 2012).

Research Objectives

Considering the place of technology in social change, our study aims to respond to the apparent dearth in the literature regarding the development of family-based environmental agency using technologies as a facilitating tool for collective behavioral change. More specifically, this is a study in the field of informal environmental education as defined by Sauvé (1997), where we endeavour to gain a better understanding of the role social media, namely Facebook, can play in a family's efforts to adopt energy reduction actions at home. The following specific research question guided our investigation: How do social media such as Facebook influence the adoption of climate change mitigating actions in the context of families living in an urban setting? From this question, three specific research objectives were proposed:

1) Describe the daily Facebook usage of participating families living in an urban setting.
2) Measure the impact of social media on participating families' monthly electricity consumption, as compared to the impact of e-mail use on other participating families' monthly electricity consumption.
3) Understand the lived experience of families trying to adopt pro-environmental actions, using social media.

Modes of Inquiry, Data Sources, and Methods of Analysis

The methodological approach guiding the present study into technology-facilitated environmental agency in the context of family is rooted mainly in the qualitative research paradigm, though our methodology also calls for descriptive quantitative data collection and analysis. We chose the collective case study (Stake, 1995) as our approach to inquiry, applying purposeful sampling (Creswell, 2007) in order to select as many ordinary cases as possible of urban families aiming to adopt more sustainable lifestyles at home.

We decided on two cities as sampling pools for our study. Throughout the world, cities are now home to most of the planet's population (Buhaug & Urdal, 2013). We believe that it is not only relevant, but also important to investigating how families living in cities try to adopt more sustainable actions since increased urbanization can, itself, accentuate serious environmental problems, such as water scarcity and water contamination. Although smaller in numbers, it should be noted that the experiences of non-urban households (e.g. rural, remote) are also important; however, they are beyond the scope of the present study. Moncton, in Southeastern New Brunswick (population = 140 000 people), is the first of two cities involved in the study. The second sample city we chose is Montreal, in Quebec (population = 1.7 million people). In each city, a number of families were selected and represented our multiple study cases. In order to address the second research objective, which calls for a more quantitative approach, we devised a methodological strategy based on a quasi-experimental model, where an experimental group and a control group are required. All participating families included: two parents; an adolescent child identified by collaborating schools; and between two and three additional children. These families were of similar socioeconomic status, specifically middle to upper middle class, though further research is needed into the experiences of families of all socio-economic classes.

In the fall of 2017, after soliciting the help of local schools in the Moncton area, we sent out approximately 500 invitations via e-mails to parents of children aged 13 to 17, living in that city, who identified as interested in adopting more sustainable household habits. In total, 31 families responded asking for more information, of which 21 agreed to take part in our four-month study (November and December 2016; January and February 2017). We randomly divided the

families into two distinct groups, the first being the experimental group (n = 12), which used Facebook as a tool for environmental agency in the family, and the other being the control group (n = 9), which had access to the same supports for change, only via individual e-mail instead of through social media. Both groups received regular information and counsel on issues relating to climate change, specifically on how to reduce their dependence on electricity at home. This information came from a separate family that was not among the research participants, who already lived sustainably and was chosen by the researcher. This "expert family" would make regular postings in the private Facebook group to inform and stimulate network activity among its members. They would send the same information to individual participating families of the control group via e-mail. Again, these e-mail addresses were obtained with the permission of participating schools. The idea was to see if the social network aspect of the experimental group would contribute to the experience of adopting collective environmental actions as family. In the e-mail group, one parent was designated to receive all information. That parent would then be expected to share with his or her family. By contrast, all members of the social media group with a Facebook account would receive the same information at the same time.

One year later, the same methodology was applied to the larger participating city of Montreal, except for a slightly different sampling strategy. In the province of Quebec, access to schools for research purposes is somewhat more complicated, requiring permissions that need to be submitted well in advance. Given the time restriction of our funding and research plan, we decided to approach the Parents' Committee from the *Commission scolaire de Montréal* (Montreal School Board). They agreed to advertise our call for participating families in their monthly news bulletin; families interested in a greener lifestyle were instructed to contact researchers for more information. In total, 39 families responded, asking for more information. Of these, 28 agreed to take part in our four-month study (November and December 2017; January and February 2018). Again, we collected consent forms from all families, randomly dividing them into two equal and distinct groups of 14 families. As with the Moncton cases, the first group was identified as the experimental group, that is, the one that would use Facebook as a tool for environmental agency. The other group was identified as the control group, which had access to the same supports for change via e-mail. Both groups of Montreal families also received regular information and support from the same "expert family" to help them adopt climate change mitigating behaviours. It should be noted that three families from the experimental group as well as seven families from the control group decided to retract their commitment to participate less than one month before beginning of the four-month experimental period, citing time concerns and an unwillingness to participate in an exit interview. Therefore, for the Montreal study site, we worked with an experimental group of eleven (n = 11) participating families, while our control group for this city contained seven participating families (n = 7).

Regarding the quantitative component of our work, we first relied on descriptive statistical analysis to get a better picture of social media usage by participating families in the experimental group in both cities. More specifically, for both experimental groups (i.e., in both cities), we kept a daily record of network activity, such as the number of "posts" and "comments" for each participating family. We then used graphs to reduce the raw numerical data and facilitate analysis. As for the control groups in both cities, we simply noted the frequency of responses from each participating family following every informative e-mail sent out by the expert family. Of course, as per our design, there were no exchanges between families in the e-mail group; rather, there were only potential exchanges with the expert family. This was deliberate in order to see the potential impact of social networking on the development of ecoresponsible behaviours. We also collected monthly electricity bills for all participating families during the four-month study periods, for the Moncton site and the Montreal site. These documents allowed us to compare kilowatt-hour consumption during the study months for control and experimental groups from both cities, with kilowatt-hour consumption for the same months of the previous year (a figure provided by both provincial electricity providers). It is also important to note that analysts from both power utilities adjusted kilowatt-hour figures from the previous year before we compared them to figures from the study months in order to account for average monthly temperature differences.

As for the qualitative aspect of our study, we conducted semi-structured exit interviews with participating families from both the experimental Facebook group and the control e-mail group (for both study cities). These interviews were conducted by the principle researcher and a research assistant. Most interviews took place in the homes of participating families, in person, but some were done via telephone due to availability and logistical considerations on the part of some participants. An inductive process of thematic analysis (Paillé & Mucchielli, 2012) was undertaken to identify, organize, and describe relevant categories (or themes) surrounding the discourse of participating family for both groups from both cities. During analysis, two researchers independently established codes to represent emerging themes within each case and compared their results. Similarities and differences across participating families, in each group and between groups, were the established in order to isolate common principle themes.

Results

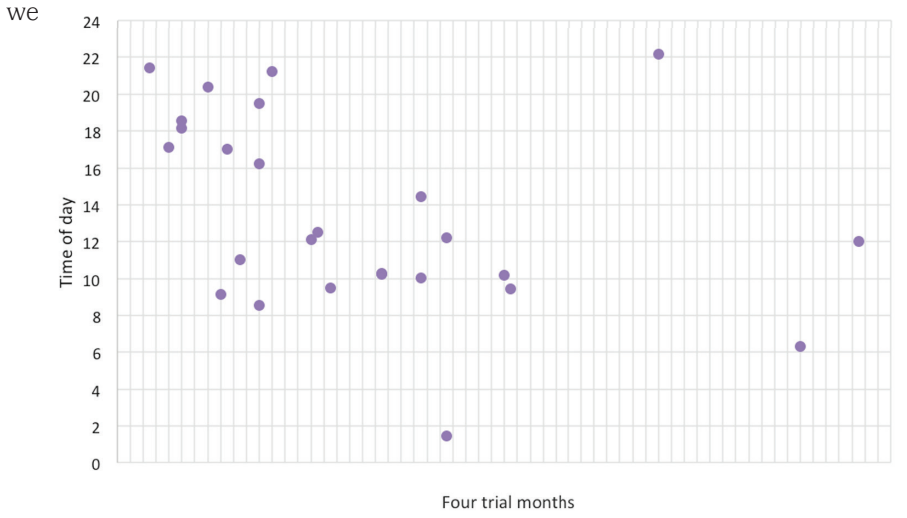
The following section presents results from both the qualitative and quantitative exploration of participating families' experiences in adopting collective sustainable actions at home. These results offer insight into the research question guiding the present study: How do social media such as Facebook influence the adoption of climate change mitigating actions in the context of families living in an urban setting?

Quantitative Results

From quantitative data registered daily over the four months of experimentation, we were able to establish certain patterns in both the Facebook and e-mail groups for each study site (Moncton and Montreal). Thus, the following data are instrumental in addressing the first research objective. In the e-mail group, the only quantifiable information available was the number of corresponding e-mails sent from each participating family to the expert family in response to a particular shared piece of information. From the nine control group families in the Moncton site, the expert family received 49 e-mail messages in total over four months, mainly asking for more detail on a given subject. In the Montreal site, the expert family received 42 e-mail messages with a similar clarification intent. Very few of the control group families from both cities (only three families from the Moncton control group and two families from the Montreal control group) fostered an ongoing exchange with the expert family. Most sent no more than one or two e-mail messages during the entire project.

By contrast, we recorded much more activity in terms of response to the expert family's messages (Facebook posts) for the experimental private Facebook groups in both cities. These responses, in the form of a "like" and/or a "comment", serve to establish a certain level of participation and engagement in the group. Though based on a relatively small number of participants and exploratory in nature, we believe the higher response frequency in the Facebook group serves as evidence of a more involved level of engagement for those participants. Another sign of this improved level of participant engagement is the fact that 20 out of the 23 Facebook group families (10/12 from the Moncton site and 10/11 from the Montreal site) posted information on the social network during the four-month experimentation period. Such information included news articles on environmental issues as well as advice on how to conserve electricity. Contrary to "commenting on" or "liking" another person's posting, such activity is self-initiated and represents, in our view, a very high level of engagement, both to the object (developing climate change mitigation actions) and to the person (other families in the virtual network). Furthermore, an interesting time-related pattern emerged vis-a-vis participant activity in the combined experimental Facebook groups. As Graph 1 illustrates, postings dropped dramatically in the second half of the study, and participants (combined $n = 23$) seemed to be slightly more active during the day than in the evening. It was also interesting to see that participants' posting activity was as prevalent during daytime or evening (that is, in the first two months of experimentation).

To address the second research objective, we needed data from monthly electricity bills, which we were able to obtain by collecting all participants' power bills, from both provincial power utilities (*NB Power* and *Hydro Québec*). In terms of electricity saved during the four-month study period for both control groups,



Graph 1. Publications shared by member families from both Moncton and Montreal Facebook groups (n = 23)

we noted that five of the nine (5/9) participating families from the Moncton e-mail users managed to save an average of 8 % on their electricity bill, while four of the seven (4/7) e-mail users from the Montreal group saved an average of 7 % on their electricity bills over the same study months. These figures translate to an average kilowatt-hours savings of $\bar{x}$ = 175 kWh for all control group participating families ($\bar{x}$ = 196 kWh for the Moncton families; $\bar{x}$ = 148 kWh for the Montreal families).

When we compared monthly electricity bills for both experimental Facebook groups over the same four-month study periods (Nov. 2016 to Feb. 2017 for the Moncton study; Nov. 2017 to Feb. 2018 for the Montreal study), we found that these participating families also managed to save electricity during the study. More specifically, we noted that seven of the twelve (7/12) participating families from the Moncton Facebook group saved an average of 10 % on their household electricity bills, while seven of the eleven (7/11) families from the Montreal Facebook group saved an average of 11 % on their electricity bills over the same study months. For the experimental Facebook groups combined, there was an average kilowatt-hours savings of $\bar{x}$ = 311 kWh for participating families ($\bar{x}$ = 306 kWh for the Moncton Facebook users; $\bar{x}$ = 317 kWh for the Montreal Facebook user).

Finally, when we looked at the kilowatt-hours saved for families in both Facebook groups (Moncton and Montreal combined), we noticed an association between the amount of electricity saved and the level of activity in terms of

"comments" and "likes" posted by families. The following table (Table 1) shows that, in general, families with a higher participation rate in the private Facebook group seem to have saved more electricity over the study.

After compiling and analyzing descriptive data for both the experimental and control groups, we attempted to get a better understanding of the human experience of adopting environmental action as part of a virtual social network. At the end of the project, we conducted exit interviews with available consenting families of both groups (n = 32) in order to compare the experience of attempting household environmental action as part of an online network of like-minded families with that of attempting change without the support of a peer group.

Facebook Families (n = 23)	Level of Facebook Activity	KW/h saved
A	Not Active	0
B	Very Active	335
C	Not Active	0
D	Very Active	587
E	Very Active	633
F	Somewhat Active	276
G	Very Active	0
H	Very Active	597
I	Very Active	910
J	Not Active	0
K	Somewhat Active	340
L	Somewhat Active	0
M	Very Active	340
N	Not Active	0
O	Somewhat Active	250
P	Very Active	560
Q	Very Active	610
R	Not Active	0
S	Very Active	590
T	Not Active	0
U	Very Active	820
V	Not Active	0
W	Somewhat Active	320

Table 1. Facebook activity and electricity saved for all experimental group families

Qualitative Results

Here are some of the questions and prompts asked during these semi-structured interviews, which lasted approximately 30 minutes on average: What actions did your family adopt during the project? Describe your family's experience as it attempted to reduce household electricity use [as part a private Facebook group/having access to support via e-mail]. What are your thoughts on the support you received from the expert family? How was your experience affected by your [involvement with / isolation from] other families also attempting to adopt sustainable action at home? What challenges did your family encounter during the project?

After applying a process of thematic content analysis (Paillé & Mucchielli, 2012) to transcribed interview data, we found a number of emergent themes that seem to corroborate our quantitative results. They also provide a deeper understanding of what participating families in both groups experienced. This experience was, according to our qualitative data, similar in some ways, yet different on other levels. For example, families from both groups seemed to find it difficult to sacrifice certain comforts, such as taking long hot showers. For their part, only families from the Facebook group spoke of a higher level of collective engagement during the project months, especially from the children. The parents of these families shared how impressed they were to receive frequent reminders from their children to turn off the lights, for example. Such qualitative themes are identified in Table 2, along with supporting excerpts from qualitative data collected from consenting families (n = 32) in both cities.

Discussion and Conclusions

In light of increasing global environmental problems, such as climate change, millions of people throughout the world are looking for solutions. Though large-scale interventions are necessary if we are to meet Paris Agreement targets of limiting global temperature rise to under 2 degrees Celsius (United Nations, 2015), there is still a need for local action, such as reducing household electricity consumption. The most recent IPCC Report (October 2018) remarked on "shared socioeconomic pathways" (SSPs), which focus on adaptation to **and** mitigation of climate change. This relatively new point of view draws a new dimension to the IPCC's climate modeling, one that considers the impact of changes in human behavior. In the digital age, from the human behavior perspective, particularly relevant to incorporate the use of social media in the fight against climate change.

The present paper aimed to evaluate the use of virtual social networks to foster collective environmental action in the context of family. Our exploratory study offers descriptive and qualitative evidence that Information and Communication Technologies (ICTs), such as Facebook and e-mail can contribute to

efforts to reduce electricity use in urban families already intent on leading a more eco-responsible lifestyle. Though our study's research design did not allow for direct attribution of energy savings to the use of ICTs, descriptive data as well as qualitative results do seem to point to some degree of effect, justifying further research on the use of technology in adopting pro-environmental action in families.

Major themes	**Groups**	**Supporting examples from focused coding**	**Supporting excerpts from participant interviews***
Relatively simple chosen actions	Both groups	- Reducing hot water usage. - Reducing ambient temperature.	*I take short showers now*. (EMG-C) *We've gotten used to lowering the thermostat a couple of degrees in the daytime*. (FBG-P)
Changing habits is difficult	Both groups	- Change takes time. - Sacrificing comfort is difficult.	*I sometimes forget to turn the heat down for the night, but I'm getting better at it. I just can't give up my long hot showers though*. (EMG-P)
Higher environmental awareness	Both groups	- Higher collective awareness of environmental problems. - Higher collective awareness of impact on the environment.	*Messages from the model family helped us to know more about nature and pushed us to talk about what we can do to help*. (EMG-P)
Higher family engagement	Facebook group	- All family members are involved in change efforts. - Families are encouraged by a sense of support from others.	*It felt good to do something as a family, all together*. (FBG-P) *We really felt that we were not alone in our efforts*. (FBG-P)
Higher participation from younger family members	Facebook group	- Children remind parents to stick with actions. - Children are active in simpler actions (e.g.: turning out lights).	*I liked it when I told daddy to turn off the TV*. (FBG-C) *It was great to see the kids running around turning off lights*. (FBG-P)
More family conversations about the environment	Facebook group	- More meaningful discussions on family environmental values.	*We found ourselves talking more about nature with the kids*. (FBG-P) *I liked talking to mommy about helping the polar bears*. (FBG-C)

* Abbreviation legend: EMG = e-mail group; FBG = Facebook group; P = parent; C = child

Table 2. Results from thematic content analysis of exit interviews from experimental and control groups

More specifically, families from the experimental Facebook groups and the control e-mail groups in both study cities were able to reduce their electricity consumption during the project in terms of monthly kilowatt-hours saved. This suggests that concrete pro-environmental actions can be adopted by families through both Facebook and e-mail use. Qualitative data served to identify the pro-environmental actions attempted during the project and helped to shed light on how participating families from both groups, in both the smaller city (Moncton) and the larger metropolis (Montreal), were able to reduce their electricity consumption during the project months. As for the nature of the actions attempted and seemingly adopted by all participating families (e.g., limiting hot water use, shutting off the lights when leaving a room in the house, reducing ambient temperature in the house during the nights), they were all relatively simple. These results are in line with our previous work on family-based environmental behavioural change (Léger & Pruneau, 2013, 2012, 2011). Finally, from a quantitative perspective, both the control e-mail and experimental Facebook groups showed similar effects in terms of energy savings, as evidenced by their electricity bills, with the Facebook group showing slightly higher savings.

Qualitative content analysis of the exit interviews conducted with participating families from both study sites revealed emergent qualitative themes, highlighting similarities as well as differences between the experimental and control groups, specifically as related to the experience of family-based change. For example, participating families from both Facebook and e-mail groups mentioned that changing energy intensive habits was difficult. As Maiteny (2002) suggests, it is hard to change comfort habits for more sustainable and often less practical actions. The mother of one participating family put it this way: "I know it's better for the environment if I simply put on a sweater when I'm home on a cold day, instead of raising the thermostat a couple of degrees … but I'm so used to it just being toasty warm." During the exit interviews, families from both experimental and control groups also stated having higher levels of environmental awareness as a collective after having participated in the study. However, members of the experimental Facebook groups from both cities showed higher levels of collective engagement towards the environment. In contrast with the control e-mail groups from both cities, all participating members of the Facebook groups - adults and children - were involved in ensuring collective change efforts as a family. In fact, children seemed to play an important role in these families' success at adopting collective environmental action. For example, children would often remind adults to stick with the agreed upon actions. The Facebook families also mentioned being encouraged by a sense of support from other families in the social network, a potential motivating factor inherently not part of the family experience in the control group. Finally, another difference between experimental and control groups, which emerged from the thematic analysis of exit interviews, was the higher number of reported family conversations about environmental themes in the Facebook group.

In conclusion, although our results seem to point to some transferable benefits of social media use in adopting energy-conscious actions (i.e., family engagement boosted by a higher sense of collective support, more participation from younger family members, more meaningful family conversations on environmental values), they do not lend themselves to a more generalizable view. Moreover, our descriptive quantitative data do not seem to support the idea that using social media-type technology is any more efficient than less socially oriented, e-mail-type technology in enticing families to adopt lasting collective environmental action. In other words, social media did not prove to be substantially more effective in contributing energy reducing actions in urban families (Facebook participants showed only a slightly higher energy savings when compared to the e-mail group). However, Facebook does seem to contribute to enhancing family engagement in environmentally friendly practices, especially in younger family members. This finding was exclusive to the Facebook participants. Finally, we reiterate that more research is needed in order to better understand the possible contribution of ICTs (including but not restricted to social media) and other technologies to the adoption of collective pro-environmental action in the context of family. Specifically, further investigation is warranted on the household climate change mitigation experiences of families from all socioeconomic strata as well as of families in more rural and remote areas.

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Eco-Activism Contributions to Social Learning: Drawing from the Turcot Public Debate

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Abstract:
This article highlights the social learning dynamics, issues, and outcomes characterizing an urban transport controversy in which activists played an innovative role, going beyond the project's critique to present a technically detailed alternative, grounded in a collective ethical clarification process. The article then draws on a case study experience and findings to discuss how research in the field of non-formal eco-citizenship education can contribute to the reinforcement of social movements and the transformation of democratic institutions.

Résumé:
Cet article met en exergue les dynamiques d'apprentissage et les enjeux (éthiques, épistémologiques) qui ont caractérisé une controverse à propos d'un méga-projet de transport routier en milieu urbain. Dans le cadre de ce long débat, des militants et militantes ont joué un rôle innovant en dépassant la critique du projet initial pour y proposer une alternative techniquement détaillée, fondée sur des principes de justice sociale et de responsabilité environnementale convenus collectivement. À l'appui des résultats de cette étude de cas, l'auteure discute d'avenues de recherche dans le champ de la formation relative à l'écocitoyenneté, qui puissent contribuer au renforcement de mouvements sociaux comme à la transformation d'institutions démocratiques.

Keywords: activism, eco-citizenship education, environmental controversies, social learning, social transformation, urban transportation, Turcot interchange

Mots-clés : militantisme, formation relative à l'écocitoyenneté, controverses environnementales, apprentissage dans l'action sociale, transformation sociale, transport urbain, échangeur Turcot

Eco-Activism Contributions to Social Learning: Drawing from the Turcot Public Debate

Eco-citizenship education is receiving an increasing amount of attention within the environmental education field of study and intervention. Although an important trend in eco-citizenship education is eco-friendly practice, a growing group of scholars and educators are instead aiming for the endogenous development of eco-political knowledge and competencies. From this perspective, citizenship

is considered as a lifelong learning process, embedded in community projects, collective actions, and activism. Through this critical and humanistic prism, eco-citizenship can be viewed as an *auto-* and *co-*determination process, informed by reflective explorations of one's inner landscape, relationships with others, and the environment.

Social movements about socio-ecological issues are known as rich learning contexts (Biddix, Somers & Polman, 2009; Brière, 2016; Orellana & Marleau, 2015; Walter, 2007). The learning processes and outcomes characterizing the interactions between activists, government representatives, project instigators, and other stakeholders of an environmental controversy are also of great public interest. These experiences showcase differentiated realities within a given debate. Overall, deliberative contexts have the potential to foster important transformative learning. In such conversations, ethical, political, and epistemological issues are raised and faced, challenging everyone's viewpoints. Debates then create unique opportunities for different interest groups to reflect upon and evolve in their understanding of a problem.

In the following, I draw upon a case study of the debate about Montreal's Turcot interchange reconstruction to demonstrate ways in which research on eco-activism and public debates from a collective learning viewpoint can contribute to social change and new, non-formal educational perspectives. After having briefly outlined the case, the objectives and structure of the study, and some of its striking results, I discuss ways in which such types of research can contribute to the enhancement of social movements and nourish collective reflection on the modernization of democratic institutions.

The Turcot Interchange Reconstruction Public Debate: Five Years of Controversy, Mobilization, and Alternative Solutions Building

The Turcot interchange—known as the largest highway infrastructure in Canada—connects two major highways a few kilometres from downtown Montreal, Quebec. It is located in the working-class districts of Saint-Henri, Côte-Saint-Paul, and Ville-Émard, where the education levels, socio-economic status, and life expectancies are lower than the city's average, raising environmental justice concerns among social activists and public health officials. Built in 1967 (Figure 1), the Turcot was ready just a few days before the beginning of Montreal's International and Universal Exposition, known as Expo 67. With such global exposure, both the new interchange and Expo 67 became symbols of the nation's modernization, know-how, and potential. Forty years later, around 2004, the interchange's once-futurist structure was showing significant signs of aging. According to experts' assessments, it needed to be entirely replaced.

Figure 1. A section of the Turcot interchange (1967). Source: *Bibliothèque et Archives nationales du Québec* (photograph: Gabor Szilasi)

In the time between Quebec's Ministry of Transportation (MTQ)'s public announcement in September 2007 about its intention to rebuild the interchange and the launching of the definitive project in April 2012, community organizations, universities, and public institutions (the MTQ, the City of Montreal, Montreal's Public Health Board and Quebec's Public Hearing Department) hosted a succession of clarification and debating opportunities surrounding the Turcot's reconstruction, all parts of what I will refer to as "the Turcot debate" in this article. In these formal and non-formal deliberative spaces, participants agreed on reconstructing the interchange, understanding the major security hazards caused by the aging of the structure; however, activists would eventually argue that part of the structure was still in good condition and could be preserved within the reconstruction project.

In fact, controversy built up about the ways in which the project could be oriented. On the one hand, security and logistical concerns were put forward by the MTQ to legitimate a conservative approach to the reconstruction; the ministry was planning to rebuild for automobile transportation only, improving the structure's fluidity and, consequently, increasing daily traffic potential. On the other hand, environmental priorities, public health issues, and social justice preoccupations were advanced by social activists, academics and Montreal's Public Health Board to defend the necessity of the project's rebuild being innovative and to advocate reconstruction scenarios based on such values.

In the Turcot debate, advocates for an innovative rebuild and other critical participants asked questions such as: Could the project include a light rail train in the east–west axis? With this commuting initiative, could the capacity of the interchange structure be reduced? Could certain sections of the interchange be buried to reduce stress on the environment (air pollution, noise, physical barriers) and free land for the development of neighbourhoods? What would be the best way to integrate the rebuild into the existing urban environment? How could compulsory purchases and enclosing constructions be avoided? How could the rebuild ensure that Montreal's transportation plan orientations and Quebec's policy on greenhouse gas emissions would be respected? The Turcot debate induced a global inquiry dynamic where MTQ officials were challenged and stakeholders were inspired to mobilize the knowledge the various participants brought into the public space.

From a social learning perspective, this debate was interesting in at least three ways. First, activists were demonstrating that the planning process had been started in a reverse order. The initial civil society protest (2007-2009) actually highlighted an important pitfall in the consultation process, criticizing the MTQ for having already chosen the project's parameters before the population even knew about the Turcot's security problems. In fact, the MTQ had previously worked on five different reconstruction scenarios and chosen one of them. Its officials were strictly planning on informing the public of upcoming roadwork, as if they were working on a small repair project in some quiet territory. They did not consider consulting Montreal's citizens on the principles that should guide the huge Turcot reconstruction project, which would happen in the middle of the city. Shocked by the MTQ's way of planning, citizens, local associations, NGOs, and a few political parties formed a coalition, Mobilisation Turcot, to discuss principles the new interchange should respect. Later, the coalition demanded that key conditions be agreed upon in the public space. Without necessarily realizing it, the coalition had practiced the "omnilogue" deliberative ideal (Rawls, 1995), a model in which the citizens, and not the experts, who primarily determine a project's foundations—its core values.

The second striking feature of the Turcot debate is the way in which it opened a diversity of deliberative spaces. Early on, community organizers invited various specialists to meet with local citizens, representatives, and social workers. In these monthly meetings, participants would ask questions to the invited experts in order to build a comprehensive understanding of the many ecological, urbanistic, sanitary, and economic issues raised in this complex debate. These events also served as preparation sessions for the upcoming public audience, to be held in 2009 by Quebec's Public Hearing Department, where a record number of submissions were presented. In addition to these meetings and hearings, three universities in Montreal organized forums and design charrettes. The Montreal Public Health Board also hosted a workshop where international specialists presented inspiring urban highway requalification projects to local decision makers

and NGOs involved in the debate. In all of these deliberative spaces, participants could contemplate the reconstruction project and its possible outcomes and consequences from outside perspectives, thus decentring their own viewpoint and providing new inputs to challenge their initial frames of reference.

The interactions within these diversified deliberative spaces later led to creative public discussion about alternative reconstruction projects, which I consider to be the third striking feature of the Turcot debate. In 2010, the City of Montreal and a municipal opposition party, Projet Montréal, each suggested a global vision of what could be an innovative alternative to MTQ's reconstruction project. That same year, Mobilisation Turcot—along with a few Concordia University professors and students—launched, in the public space, a detailed normative and technical proposal called *Turcot 375*. This proposal was building from Mobilisation Turcot's *Statement of Principles* (Figure 2).

The government's plan is to build a new highway right alongside the existing elevated structure. While nobody denies that the Turcot Interchange is in need of repair, the proposed lower structure will have a negative impact on public health, on our environment and on the socio-economic development of the South-West. Not only does this project lack vision, it will endanger Montrealers' health and well-being:

- Residents of the South West borough will be even further exposed to the negative effects of automobile generated air pollution from a lower highway structure;
- The project will further contribute to greenhouse gases; No attempt is being made to reduce car traffic;
- Hundreds of people will be expropriated and their homes torn down: A community will be destroyed;
- A walled highway will fence in many South West communities, effectively stunting their long term growth and socio-economic development.

We therefore demand that the government return to the drawing board, to develop a plan that will have a beneficial impact on the environment and on the population's quality of life. The following objectives should be integral elements of any future plan:

- The reduction of negative health effects upon neighboring communities;
- The reduction of automobile traffic flow and increased investment into public transportation alternatives;
- The opening of enclosed communities;
- Preservation of existing affordable and low cost housing units;
- Special economic subsidies to the communities most impacted by the negative effects of the major work during the construction period.

Other cities around the world have managed to conceive and build similar grand projects that do respect these kinds of goals. Here in Quebec, it is possible to replace Turcot within a framework of sustainable development and of respect for the environment and the local population. Let's make it work!

Figure 2. Mobilisation Turcot's *Statement of Principles* (2008)

Turcot 375, which had the same budget as MTQ's project, promoted sustainable mobility along with integrated transportation and town planning. It would have reduced Turcot daily traffic by 40% (whereas MTQ's plan would increase daily traffic by 17%) and substantially diminish the size of the infrastructure. To provide local car users with new modal shift possibilities, *Turcot 375* was proposing a tramway, collective transportation on highway reserved lanes, and a rail shuttle connecting downtown Montreal to the airport. Additionally, *Turcot 375* would have reduced the interchange capacity and thus downsized it, which would have freed up economic resources for other innovative transportation solutions. Finally, Mobilisation Turcot's proposal avoided all expropriations and integrated an urban park proposal. It received support from the Montreal Environmental Regional Council, Montreal Public Health Board, and Quebec's Engineers Network, among others. However, the MTQ did not include *Turcot 375* features in its planning activities.

In 2012, activists were still pressing the government to substantially change the project. Since 2007, MTQ's budget had continually risen. Their initial budget of CA$1.5 billion had increased to CA$3.7 billion—a phenomenal rise that many Quebecers demanded explanation for given the absence of notable innovation. In this context, *Turcot Cure Minceur* [Slimming Cure for the Turcot], Mobilisation Turcot's final revised proposal, highlighted a number of the interchange's structures that were reportedly in good condition and which could be saved from demolition. Thus, the proposal advanced a reconstruction project sequencing that would allow for budget cuts and disturbance reduction. The tramway and rail shuttle that were part of *Turcot 375* were no longer present in the *Turcot Cure Minceur* project since activists were acknowledging MTQ's refusal on these aspects and recent steps towards a definitive plan. Nevertheless, Mobilisation Turcot still aimed to influence MTQ's officials in improving their plan. Unfortunately, Mobilisation Turcot's later efforts did not have much impact on the project. Activists eventually concluded that other stakeholders were being more effective than Mobilisation Turcot in influencing the government's decisions about how to proceed with the Turcot project [1].

The Turcot Debate as a Learning Journey

While studying this controversy, I focused on the learning dynamics emerging from the conversations and conflicts that involved a range of individuals, groups, leaders, and stakeholders. More specifically, I investigated the ways that understanding was developing regarding the different eco-social realities coming into play. I studied the meaning citizens were giving to their commitment in the Turcot debate, the process by which they had clarified that meaning and the knowledge they had developed through that whole eco-citizenship experience. I also highlighted and analyzed the ethical, epistemological,

and political issues characterizing these learning and deliberative processes. Finally, I looked for indications of personal and eco-social transformation that were likely attributable to the Turcot debate.

Theoretical, Epistemological, and Methodological Overview

This qualitative research mobilized interpretive and critical epistemological standpoints and drew from three complementary methodological approaches: phenomenology, ethnography, and grounded theory. An interdisciplinary theoretical matrix was built for this case study, drawing on elements from sociology, political philosophy, and, primarily, education researchers' contributions to the following areas: continuing education, environmental education, place-based education, democratic education, and critical pedagogy. As a result of considering these methodological and theoretical influences in my study, I developed the "theoretical sensitivity" required to successfully run the field inquiry (Luckerhoff & Guillemette, 2012) and nourish the theorization process. The theoretical framework developed throughout the research process and considered: 1) the inner, introspective dimension of learning; 2) its collective dimension, lived through deliberative activities and public space interactions; 3) eco-citizenship as a particular form of relationship to the environment; and 4) epistemological concerns raised in the context of socio-ecological controversies. Drawing from humanistic and socio-constructivist perspectives, the first three sections of this matrix acknowledge the essential relationships sustaining personal and social development, i.e., the relations to the self, others, and the environment (Pineau, 1992; Sauvé, 2001). The fourth section of the framework intersects with the first three. It has a more critical orientation, exploring how stakeholders may consider the various types of knowledge involved in an environmental debate and analyzing the possible consequences of these epistemological perspectives in terms of democratic dynamics and learning possibilities.

Four data collection strategies were used in this study: 1) semi-structured individual interviews with key actors in the debate; 2) semi-structured group interview and observation with the Mobilisation Turcot strategic committee; 3) analysis of documents, and 4) non-participative observations of formal and non-formal deliberative experiences, as well as of protests, press conferences, and other related events. Internal validation strategies appropriate to qualitative research, mainly triangulation and data saturation, were applied throughout this process, and relational rigor criteria (Robottom & Sauvé, 2003; Savoie-Zjac, 2011) guided the research. Among these criteria were the formulation of research questions that genuinely interested the participants, the cultivation of a reflexive stance, the demonstration of a transparent attitude about the limits of the research, and the enhancement of participants' contribution to the research (e.g., quoting the participants with their names, upon previous authorization). Data analysis mobilized two main strategies: data questioning and conceptual category building (Paillé & Mucchielli, 2012). While the former strategy

was essentially used to describe the different aspects of the case I studied, the latter served the theorization process related to each of the research project's objectives.

Conservative Outcomes, Yet Great Apprenticeships

Despite the intensive, creative, and sustained commitment of activists as well as other specialists and governmental professionals who shared their visions and expectations, the brief case illustration provided above reports quite a sad story if we consider the direct outcomes of this six-year-long debate. When the definitive plan was launched by the MTQ, most citizens involved shared the impression of having "lost the battle", as well as having lost their time and their faith in democratic institutions. Many were profoundly sorrowful. Up until the time of the Turcot debate, South-West district NGOs and community associations had many success stories about their activism. As examples, they had won investments and regulations for affordable housing and forced the government to abandon a huge casino project.

The Turcot debate had also challenged the community network spirit. On one side, people had built new, innovative and effective bridges of collaboration, but on the other, they had struggled to agree on leadership initiatives, which had left some people feeling not only distanced from the process but also hurt. Healing would take some time. Interestingly, a few activists reported that participating in this study, particularly in the group discussion session (interview), was a restorative event in the wake of their disappointment.

In this context of discouragement, approaching the debate as a social learning experience presented the participants with an empowering potential and the possibility of a reinvigoration of faith in the utility of, not to mention will for, political commitment. To approach it as such, I focussed on participants' contributions to the collective inquiry; identified positive results going beyond the spectrum of the Turcot controversy; and highlighted hints of peoples' own transformation journey throughout the deliberative process.

Thus, the study clearly showed the outstanding contribution of activists and politically active specialists to the deepening and comprehensive understanding of the problems relating to the Turcot reconstruction. Without these experiential, contextualized, ethically-grounded, and multidisciplinary inputs, many facets of the issues considered would not have surfaced. The first concerns brought into the debate—synthesized in Mobilisation Turcot's (2008) *Statement of Principles*—raised important environmental justice issues. When the original, acclaimed construction project took place in the 1960s, it increased burdens on already disadvantaged working-class neighbourhoods, where industrial shops stood alongside workers' houses, gardens, and amenities. Forty years later, community associations were much more organized and actively claiming citizens' rights for healthy environments, quality of life, and fair housing conditions. Those protesting MTQ's plans for the interchange in the early days of the

new millennium decried the government's plan to repeat the mistakes of the initial project. Activists called for wise planning, linking local realities and needs with more global concerns (such as climate change and socio-ecological consequences of petroleum dependency), and charging the government with a duty to be innovative in light of past mistakes and present international concerns.

Consequently, the contributions of the activists and politically active specialists initiated a much broader debate. Its overall question had become "What place are Montreal's citizens willing to give to car transportation in the 2010s"? Soon, activists' inquiries and alternative design proposals led to the identification of an important logistical and conceptual problem regarding transportation organization in Montreal's metropolitan region; there was neither regulation nor a responsible institution to oversee global, concerted planning. Instead, many organizations shared a range of responsibilities. Even MTQ admitted that their road transportation and collective transportation sections generally worked in silos (Dompierre, 2012). This lack of systemic thinking was challenging responsiveness to citizens' modernization desires. It was also impeding comprehensive restructuring towards an energetic transition that would foster social justice and more ecological transportation practices and systems.

Alongside the Turcot mobilization, citizens developed and consolidated impressive knowledge as outlined in Table 1. As this table demonstrates, the learning outcomes of Turcot public debate commitments are notable. In fact, many people involved in the debate became super citizens in the process; they developed systemic conceptualization abilities, critical thinking skills, autonomous and collective ethical questioning abilities, public speaking competence, creative capacities, and so on. And more interestingly, I noted transference of this knowledge into future professional or activist endeavours. Having become politically invested in the Turcot controversy, many citizens were inspired to engage in other local or regional eco-political debates. For instance, two of them even ran for municipal political parties and one was elected as a progressive city councillor.

Contributing to Social Movement Reinforcement

The results presented in Table 1 support and add to previous findings about competencies building in eco-political involvement (Biddix et al., 2009; Sauvé, 2013; Sauvé & Batellier, 2011). Theorizing on such learning experiences, systematizing them, and disseminating their important collective outcomes can certainly contribute to citizens' group empowerment. This can happen from external recognition facilitation (i.e., the essential contributions of decision makers and stakeholders can be included in external research that endorses them) as well as from activists' participation in critical studies. The reflexive exercises to which participants would typically be invited in such research offers a rare assessment opportunity. In fact, Turcot debate activists reported lacking

Factual and conceptual knowledge (*connaissances*)	**Know-how** (*savoir-faire;* cognitive, strategic and practical abilities)	**Know-how-to-be** (*savoir-être*; knowledge relating to attitudes and values)	**Integrated action-knowledge** (*savoir-agir;* integration of the 3 previous forms of knowledge)
• Comprehension of the local and global eco-social realities forming the issue • Increased understanding of political functioning • Grasping of stakeholders' organizational cultures • Understanding of social action leverages • Understanding of social inertia forces	• Refined reading of power dynamics • Critical investigation/ holistic characterization of stakes and issues • Systemic analysis of megaprojects • Valorization of previous activist learnings • Strategic planning for participation in formal deliberation spaces (procedural knowledge) • Communicational and newsworthy competencies	• Resourcefulness, audacity • Perseverance, self-confidence • Modesty, humility • Dialogical attitude, decentring capacity • Broad openness to learning • Resilience, adaptability to changing conditions • Citizenship "vigil" • Collective building of an axiological anchoring	• Intervening in a conflictual context • Arguing in the public space • Developing and modulating political strategies • Rallying key resource persons • Livening up and moderating a mobilization • Organizing deliberative spaces • Collaborating for the common good - Adapting one's role - Self-questioning - Trusting mobilization partners

Table 1. Eco-citizenship knowledges developed in the Turcot controversy. Source: Brière (2016, p. 219), using Lucie Sauvé's categorization (2013).

time for retrospectively considering, with partners, the meaning of their commitment, the strategic choices they made, and their main realizations. What were their deep motivations to get involved? What were their first understandings of the issue? How had it evolve? What were the successes? What could have been done differently? What had been learned during the journey? Such a reflexive exercise, realized during this study's interviews, showed very interesting learning outcomes; participants observed it permitted them to acknowledge how much they had learned. During these interactions, learning cycles were thus completed. Such reflective exercises have great potential for self-esteem enhancement and empowerment.

Another way research on social learning within environmental controversies can facilitate social movement reinforcement is through considering a given action's possible influences on the apprenticeship of individual activists as well as future deliberative processes and debates more generally. Social transformations often need time. In the Turcot case, activists looking strictly at MTQ's final plan to assess the outcomes of their involvement concluded they had failed to bring about change. However, by considering the bigger picture with an eye for

the appearance of medium term learning outcomes, one can formulate quite a different interpretation of the activists' efforts.

In fact, the Turcot controversy catalyzed the first Montreal public debate on transportation issues. It started with analyzing the Turcot project, but it evolved to the point of questioning the whole metropolitan transportation network's functioning. Consequently, and as many of its actors acknowledged, the Turcot debate genuinely formed collective intelligence about metropolitan transportation issues and possibilities. Drawing from these deliberative outcomes, the 2012–2017 *Metropolitan Land Use and Development Plan* (Communauté métropolitaine de Montréal, 2012) integrated actions for the densification of suburbs and transit-oriented development, upon an extensive consultation hosted by the Montreal Metropolitan Community and involving most of the Turcot debate's stakeholders, among others. Also, in 2015, the City of Montreal launched an innovative, independent consultation process aiming to identify strategies for Montreal's contribution to international targets for the reduction of greenhouse gas emissions. In 2016, a large-scale light rail transit system project, the *Réseau express métropolitain* (REM - Metropolitan Express Network), was announced to serve Montreal's island and shores, with 24 stations and 67 kilometres of tracks. The REM construction work started in 2019 and is planned to finish by 2023. This project considers two major elements of *Turcot 375*'s plans: it offers a collective, low emission transportation solution for West-Island commuters and a rail-shuttle between downtown Montreal and the airport. Finally, the provincial *Loi sur l'Autorité régionale de transport métropolitain*, (adopted May 2016) regulated an important reform for Montreal metropolitan transportation planning and coordination. It allowed for the creation of a regional metropolitan transportation authority, responsible for this territory's entire transportation network. This measure also addresses concerns raised in the context of the Turcot public debate.

Reflecting on Public Hearing Institutions from a Social Learning Perspective

Highlighting the belated positive outcomes of this extensive controversy can nourish optimism and faith in citizenship participation. Nevertheless, not all Turcot deliberative contexts appeared to possess the same learning potential. As we saw above, the main civil contributions and collective learning happened outside of the formal deliberation institution responsible for the inquiry, even though it is through the initial stages of this regulated process (i.e., mandatory information sessions) that activists and other stakeholders were informed about the project and started organizing their mobilization.

Doing a systematic literature review on social learning in the context of environmental controversy, I was surprised to find that very few studies to date (e.g., Jakobsen, 2006; Sauvé & Batellier, 2011; Sinclair & Diduck, 2011) had

investigated social learning's limiting factors. A significant amount of research has actually focussed on social learning processes as well as knowledge and competencies developed (for instance, Bauer, 2001; Pahl-Woslt, 2006; Schusler et al., 2003), but the barriers to learning were rarely considered.

In my study of the Turcot debate, I decided to begin to fill this gap by investigating the epistemological, ethical, and political issues that characterized the controversy. As might be expected, an impressive number of concerns were thus underlined. Among those relating specifically to the formal deliberative space configuration are its lack of accessibility and the strong valorization of "expert," specialized knowledge.

Many scholars (for instance, Leff, 2004; Lowan-Trudeau, 2019; Wals et al., 2013) working on socio-ecological controversies call for the recognition of different forms of knowledge—scientific, indeed, but also situated, critical, experiential, embodied, and Indigenous, among others—in public discussions of critical matters. I also appeal for a dialogue between those different and complementary ways of approaching our common environmental challenges, characterized by conceptual, ethical and praxeological complexities. In this sense, I believe we need what Virginie Albe (2009) has called knowledge "ecologization." Yet, it appears that democratic institutions such as Quebec's Public Hearing Board are not amenable to such hybridization.

The questions studied within the Quebec Public Hearing Board's setting are generally approached through a fairly narrow lens; the project's technical feasibility, along with the associated environmental and sanitary risks, remain the focus of discussions. This process favours and fosters, above all, promoters' and experts' specialized knowledge. In this context, citizens are not considered as contributing to knowledge construction, but rather as sharing opinions and worries. How could citizens' competencies and conceptualizations find more legitimacy in formal deliberation settings? This is an area where environmental education practitioners and researchers alike could definitely contribute.

Connected to the limited conception of what can make for legitimate knowledge in a deliberation process is the question of various forms of public communication finding recognition in the unfolding of environmental controversies. On this matter, the results of my case study align with analyses by Sharon Krause (2005, 2008) and Jürg Steiner (2011) of the idea that public deliberation founded exclusively on rational communication and reasoning—grounded in codified knowledge mobilization—negates humans' emotional realities as core initiators of learning and commitment.

In the Turcot case, citizens decided to inquire about MTQ's project because they were moved by strong feelings of fear, indignation, and anger. They became involved in the debate because of their strong desire for social and environmental justice. It is from these initial emotional experiences that they later gathered information and clarified their perspectives (values, collective wills), leading to their drafting of a *Statement of Principles* (Mobilization Turcot, 2008).

This process eventually led to them wanting to deeply understand the city's transportation issues and to find solutions based on the values they had clarified together. From an eco-citizenship education perspective, what has been called the "NIMBY syndrome" (Not in My Backyard) is then not a burden; it is a crucial step for collective reflection about the common good. Citizens sound the alarm for what, from a socio-ecological equity perspective, should not be accepted anywhere (Sauvé & Batellier, 2011).

In this idea of recognizing emotion at the onset of essential social learning, deliberative settings could give much greater importance to citizens' "narrative intelligence" (Hansotte, 2005). Narratives actually mobilize affective, cognitive, and conative processes (Clark, 2010). They can draw from an ontogenetic perspective, they can underline important relationships (e.g., special attachment to a neighbourhood), and they can bring important reflective components to a discussion, whereas a strictly rational analysis of facts, constraints, and possibilities cannot provide this kind of considerations.

Moreover, many citizens do not have either the time, the communication (including reading) skills, or the academic background to participate in debates as formulated by deliberation theorists or formalized in most of our democratic institutions. Rational deliberation has its virtues, but also presents important limitations. Other forms of public communication—I briefly mentioned narratives, but many should be explored, including Mike Klein's (2016) "artistic deliberation"—could certainly complement rational discussion about systemic socio-ecological equity issues and, more globally, the multitudinous realities making up essentially complex environmental controversies. Adapting formal deliberative settings by diversifying forms of communication would most likely contribute to the accessibility of these processes as well.

Conclusion

Eco-political civic actions are demanding and challenging, yet such experiences lead to essential social learning. The Turcot case study shows impressive learning outcomes in terms of personal empowerment as well as social transformations (albeit belated).

My hope is for more research to support initiatives fostering different forms of communication as well as knowledge hybridization within formal deliberative spaces like public hearing settings. This area of investigation—which interrelates epistemological, educational, and political concerns—addresses an important societal issue; it promotes exchange and discussion strategies that can contribute to social inclusiveness, creativity intake, and environmental justice, all with the aim of promoting a learning society. Now that "social acceptability" (Batellier & Maillé, 2017; Fournis & Fortin, 2017) is becoming a prominent governing value and a criterion for the approval of development projects, and given all the issues raised in the public sphere on that matter, there is an obvious need

for research on the modernization of participative processes grounded in both theory and fieldwork.

Notes

1 The "black box" of decision-making is not easy to access, and since lobbying dynamics do not take place in the public sphere, they were outside the scope of this study, which focussed on social learning in formal and non-formal deliberative settings.

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Artist's Statement: Plastic Ocean

Mindi Lee Meadows, University of Calgary, Canada

My artwork takes a critical view of social, political, cultural, and environmental issues within the Canadian context. Often referencing Canadian history, I explore the varying relationships between Canadian literature and landscape traditions by illuminating positionality and exploring the process of erasure within particular constructed social and ecological Place(s). I think of my artwork as unfinished inventories of fragments, glimpses of perspectives, and narratives informed by human and more-than-human relationships with land, as well as with each other. My art pieces are improvisational sites in which constructed and readymade objects, drawings, paintings, photographs, and other inventions are used to question our making of the world through language and knowledge. My arrangements are schematic, inviting the viewer to move into a space of speculation.

This particular image named Plastic Ocean, which will be included in an art installation linked to my doctoral dissertation defense, reflects upon the erasure of the lived experience of Polar Bears as icons representing the more-than-human life currently threatened by the dynamic processes constructing the Place(s) of the Canadian Arctic. This image intends to represent the Polar Bear simultaneously as a symbol of strength and endurance, as well as acceptance and surrender as the more-than-human world must increasingly respond to human presence and actions that are rapidly transforming ecological systems and socially constructed Places. This image is informed by postmodernist questioning of master narratives that were embraced during the modern period such as the notion that all progress, especially technological and urban, is positive. By rejecting such narratives, postmodernists reject the idea that knowledge or history can be encompassed in totalizing theories, embracing instead the local, the contingent, and the temporary.

Notes on Contributor

Mindi Lee Meadows is a humanities teacher currently residing in Medicine Hat, Alberta. She earned a Bachelor of Arts with a major in English and minor in Political Science in 2012 as well as a Bachelor of Education, Secondary English Education in 2014 from the University of Calgary. In 2016, she earned her Master in Education for Change from Lakehead University, specializing in Environmental and Sustainability Education. She is currently a doctoral student with the Werklund School of Education at the University of Calgary where she specializes in Curriculum in Context with a focus on the role of storytelling and visual literacies within STEAM education. Contact: mlmeadows@ucalgary.ca

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