Environmental Education for Nature Connection: An Animist Arts-based Exploration.

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Abstract

Caring for the community of life on planet Earth is critical for human survival. Humans that have a higher degree of *nature connectedness* demonstrate care for other humans and other-than-human life. Environmental educators frequently deliver programming meant to improve nature connectedness. The programs assessed so far demonstrate that environmental education programming creates a questionable impact on participant nature connectedness. To help improve the effectiveness of nature connection programming, I attempted to develop an animist ontological perspective, and experienced a solitary 40-day environmental education program. It was a phenomenological inquiry into the nature and process of nature connection. I represented the phenomenon in collaboration with other artisans to create an evocative trigger for educators to reflect upon and critically examine current methods. It is possible that connectedness is better represented as shedding a false dualist meta-narrative, as opposed to connecting "self" and "nature", or even building a relationship with other-than-human life. It is possible that revealing the unity of life by deconstructing human/nature dualism may be effectively implemented as environmental education programs by (i) re-naming and un-naming the world, and (ii) art-based self-renunciation.

Keywords: environmental education, nature connection, animism, art-based research, post-structural feminism, deconstruction, decolonization, un-naming, art-based self-renunciation.

Environmental Education for Nature Connection

Members of western civilization are at once organizing to preserve nature and directly responsible for nature's destruction. For example, there are at least 30,000 environmental organizations working to promote biodiversity and habitat protection (Hawken, 2007), while most conservation scientists believe that a serious loss of biological diversity is likely (Rudd, 2011). Concurrently, Agriculture and Agri-food Canada (2009) report that consumer demand caused the number of Canadian organic farms to increase from approximately 1100 in 1992 to 3600 in 2004, while Canadian consumption of crude oil has never been higher and is forecast to double in the next 20 years (National Energy Board, 2011). At an individual level, these contradictions and seemingly counter-productive tendencies remain. For example, a person may work to restore a local stream with tools and food that rely on the destruction of habitat elsewhere for their production. These contradictions speak to the complexity of the human/nature relationship and help illustrate why some use the term "schizophrenic humanature relations" (Dickinson, 2014). And yet, we rely on nature for our very survival. If we are unable to mend these contradictions and learn to live sustainably, we risk ending our human existence on planet earth with uncertain consequences for our other-than-human kin (Maser, 2009).

Researchers have demonstrated that when humans have a higher degree of *nature connectedness* they act with more empathy and care when interacting with others and natural resources (Gosling & Williams, 2010; Hinds & Sparks, 2008; Weinstein, Przybylski, & Ryan, 2009). However, the common human experience of urbanization/industrialization, anthropocentrism, and human/nature dualism have created

cultures that are frequently detached from the forces that nourish human survival (Fairbanks, 2010; Louv, 2005; Preece, 2005; Russell, 2005). Thus, one increasingly popular approach to addressing this important issue has been the suggestion that our species needs to reconnect with nature and mend our human/nature relationship (Campen, 2012; Spilner, 1997). Many believe that a shift in attitude and action due to improved nature connectedness may help humanity navigate long-term environmental challenges (Campen, 2012; Hinds & Sparks, 2008; Schultz, 2002). In fact, "it is argued that our present environmental predicament not only provides an exciting opportunity to re-focus education on the issue of human relationship to nature, but also requires the exploration of this issue for its long-term resolution" (Bonnett, 2007, p. 707).

A significant group taking up the challenge of mending the human/nature relationship is the environmental education (EE) community (Hill, 2012; Gilbertson, Bates, McLaughlin, & Ewert, 2006). Generally termed outdoor, environmental or sustainability educators, members of this community have been developing activities, courses, and programs since the early 1900's, though their prominence has risen greatly in the past decade (Gilbertson, Bates, McLaughlin, & Ewert, 2006; Jickling & Wals, 2008; Stibbe, 2012). The popularization of the term "nature deficit disorder" and, the beginning of the United Nations Decade of Education for Sustainable Development in 2005, have marked a renewed interest in resolving conflict in the human/nature relationship through education (Louv, 2005; Goncalves, Pereira, Filho, & Azeiteiro, 2012). Inspired by this interest, researchers have begun exploring the impact of environmental education on participant nature connectedness. As stated previously, the results thus far show that these education programs are generally ineffective (Carr, 2004;

Erdogan, 2011; Ernst & Theimer, 2011; Haluza-Delay, 2001; Stibbe, 2012). Recently

academics researching EE have been critically evaluating established principles and

publishing discussions regarding new approaches and practices to help create better

approaches to EE (Cole, 2007; Stevenson, Brody, Dillon, & Wals, 2013). Three of the

seemingly most pressing issues include: the tension between the progressive ambitions of

EE and the drive to work within status-quo reproducing institutions; the process of

decolonizing and indigenizing EE ways of learning and knowing within a western

dominated profession; and the process of sifting through and evaluating novel non-

positivist research methods (Barrett, 2011; Bonnett, 2007; Castellano, Luca, &

Sorrentino, 2011; Cole, 2007; Gruenewald, 2004; Kapyrka, & Dockstator, 2012;

Korteweg & Russell, 2012; Marcinkowski, 2010; North, 2011; Oakley, 2011; Russell,

2006).

This study is inspired by these developments within EE, and the possibility that

western civilization's dominant human/nature dualist meta-narrative is a great barrier

impeding the process of mending the human/nature relationship (Martin, 2007; Barrett,

2011; Stuckey, 2010). The construct that humans are separate from nature pervades our

language and education programming. For example, one study found that though more

than 75% of respondents (n = 182) stated that they considered themselves part of nature,

they almost exclusively associated the term "unnatural" with human influence, and

"natural" as the absence of human influence (Vining, Merrick, & Price, 2008). Some

suggest this meta-narrative is part of a "cognitive imperialist culture that privileges

rationality and human intellectual thought even though it has been consistently

recognized as insufficient to address increasingly pressing environmental concerns"

(Barrett, 2011, p. 124). Within a research context this construct has also displaced marginalized voices in environmental education research (Hart, Barrett, Schnack, Dyment, Taylor & Clarke, 2004; Hornborg, 2006; Gough, 1999; Russell, 2005).

Recently, Canadian researcher M. J. Barrett developed a new animist methodology to help address these challenges. It draws on feminist post-structural theory to inspire a relational and dialogic research method that views other-than-human animals as participants in our research effort (Barrett, 2011; Gough, 1999). It suggests that as other-than-human persons are recognized as active research participants, researchers can disrupt a dualist anthropocentric paradigm, and respond to calls for greater epistemological diversity in environmental education research (Barrett, 2011). This research study is one of the first to apply these newly developed animist methodologies, and enlighten our understanding of nature connection through a non-quantitative lens. It is also a response to calls within environmental education to re-examine and decolonize program methods and increase qualitative research (Stevenson et al., 2013). In a sense, this research represents an effort to return to the proverbial drawing board, with a few new methodological tools (animist framework and arts-based methods).

Specifically, as a participant/researcher, I engaged in a phenomenological and arts-based process within the animist framework to explore the nature and process of nature connection through the impact of an environmental education program. This process incorporated an active cultivation of an animist ontology and a phenomenological research perspective before directly experiencing (a) art making, (b) natural awareness development activities, (c) wilderness solitude and (d) wilderness living. I then created precise and evocative re-presentations of the experience meant to raise questions

regarding the *nature* and *process* of nature connection. The results are meant to (a)

inspire refined theories of human/nature relations, and (b) inspire refined approaches to

environmental education programming.

Theoretical Framework

Ontology: Animism

Animism is a human world-view that sees other-than-human entities as "persons," and works to develop respectful relationships with them (Harvey, 2006). Animism is often, though not exclusively associated with pantheistic world-views, such as the Nuu-Chah-Nulth, Ojibwe, Maori, Warlpiri, northern Asian Aboriginals, Shinto practitioners, and ancient Greeks and Romans (Hall, 2011; Harvey, 2006; Johnston, 1976; Pedersen, 2001; Peterson, 2011; Preece, 1999; Turner, 2005). Animism is also common in Christian texts, despite the assertion that Christianity destroyed Roman pantheism and replaced it with a monotheistic world-view that made possible western civilization's history of indifferent exploitation of nature (Coates, 1998; Hay, 2002; Wallace, 2012). Animism is not, however, a common ontology within the western academic community (Harvey, 2006). This is likely due to the domination of the positivist perspective inspired by Galilean mathmetization and the subsequent *Mathesis Universalis* of Descartes (Francois, 2013).

Despite its existence as a world-view for untold millennia, animism has only recently been accepted as an academic ontology. Within western academic institutions, the development of qualitative research in education began the movement towards accepting non-positivist knowledge as legitimate. The development of poststructural feminist theories continued opening academic institutions to more contextualized, interactive and non-western ways to knowing (Barrett, 2011; Francois, 2013; Gaard, 1993; Gough, 1999; Gruenewald, 2003; Lather, 1992; Riley-Taylor, 2002). First, poststructural theorists rejected stable meanings of self, and began valuing the

multiplicity of constructed meanings associated with the subjectivity of perspective (Williams, 2005). Their work helped to disrupt the dominant and secure sense of meaning associated with understanding language/history/identity, and generally view prevailing meta-narratives with credulity (Barrett, 2005, Williams, 2005).

Postructural-feminism is a branch of feminism that applied poststructural notions of unstable meaning to emphasize the contingent nature of all identities, and in particular theorists have focused on the social construction of gendered subjectivities (Barrett, 2005; Randall, 2010; St. Pierre, 2000). A feminist poststructural perspective would also explore how language can maintain and reproduce privilege for a dominant group (Barrett, 2005). Other theorists representing disadvantaged groups have also engaged with deconstruction to reveal how language can produce damaging structures when the signifier (meaning) of language is presumed to have an inherited as opposed to relative meaning (St. Pierre, 2000). "With deconstruction, knowledge is not closed and the myth of finitude explodes, since the critic must always make room for a new concept, the reconstitution, which in turn, must be deconstructed" (St. Pierre, 2000, p. 483).

This iterative openness to otherwise subjugated perspectives was crucial for the development of animism as an academic ontology. For animists, theories regarding discourse, agency and subjectivity are particularly applicable. For example, "If we accept the notion of the non-unitary subject and that there are a multiplicity of discourses constructing us and our understandings of the world, then we can begin to question and undermine the power of discourses that were previously unquestionable" (Davies, 2000, as cited in Barrett, 2005, p. 84). In this case the notion of human *superiority* and *separateness* that are reinforced through the conversations of humans in western

civilization become questionable. Thus animists surrounded by western culture are only subject to the dominant narrative, until such point as a human or other-than-human person exercises the agency to create discourses that disrupt these hegemonic cultural narratives. As such, assuming an animist ontology need not be viewed as an incorrect way of being, simply because it falls outside the dominant cultural narrative. Rather, my choice to experience an environmental education program as an animist was a legitimate and novel research approach, driven by the failure of environmental educators to successfully promote nature connection.

This choice was conscious. This was an effort to discover the nature and process of nature connection from underneath or outside my newly contested cultural narrative. It was an attempt to set aside the dominant discourse. The crux of the process, however, was that I am an English-speaking university educated ex-catholic Scottish/Acadian Canadian, and I have not previously viewed other-than-human entities as equal, autonomous, communicative persons, as an animist perspective demands. Therefore, assuming this theoretical framework required that its cultivation become a conscious and critical aspect of my research method, rather than a coincidentally occurring world-view. My methods section involves a detailed description of the process based on the framework created by M. J. Barrett that I enacted to decolonize my mental environment and assume an animist ontology. Through it, I became a person who *contingently* viewed (a) all forms of life as sentient actors with whom I am in relationship, (b) all sentient actors as conscious and communicative (c) our relationship as ever-present, and (d) the quality of that relationship as a priority which supersedes all others, save my own survival.

Epistemology: Interpretive Phenomenology and Constructivism

This research method is meant to create an in-depth arts-based analysis of "nature connection" as a phenomenon through the experience of a participant-researcher, and thus phenomenology is an appropriate method of inquiry. Phenomenology as a philosophical tradition began with the work of Edmund H. Husserl (Cerbone, 2006; Patton, 2002; Schwandt, 2007). The concept was further developed through the 20th centuries by researchers and philosophers such as Heidegger, Sartre, Schutz, Merleau-Ponty, and Zaner (Cerbone, 2006; Patton, 2002). The tradition diverged into various schools of thought, including hermeneutic, existential, and transcendental phenomenology (Creswell, 2007; Schwandt, 2007). Phenomenology is now a diverse philosophical tradition and within this tradition it is important to consider how the research participants experience the phenomena, and to what degree that experience is contextual or essential. As a phenomenological researcher it is pressing to consider and state how my assumptions fall within the phenomenological tradition by stating my assumptions regarding, (a) how knowledge is created through experiential phenomena within the research participant, and (b) how well the experience expresses a core or essential aspect of the phenomena.

(a) *Knowledge creation*: I subscribe to a combination of phenomenological and constructivist epistemologies. I assume that they exist congruently, and inter-dependently as aspects of my being, with neither usurping the other fully. Thus, the body shapes the fundamental character of our knowing about the world, and within that body is a mental component that constructs identities, narratives, and meaning. In other words, the discourses that are constructed exist, but other embodied and carnal experience is

possible (Abram, 2010; Roth, 2012). I assume that these processes of direct experience and constructed meaning interact and influence each other continuously. I also assume that there are aspects of reality that may lie outside the scope of possible human understanding, and which may be both textually and experientially inaccessible.

(b) *Generalizability*: I subscribe to the interpretive phenomenological tradition due to the hermeneutic and idiographic elements (Smith, Larkin, & Flowers, 2009). I view interpretation as a mandatory aspect of the research, even as a participant researcher. Deriving meaning from a pre-reflexive experience is an interpretive process and it is difficult to completely escape all assumptions to reach a context of transcendental subjectivity. Thus, the experience is highly contextualized rather than expressing an elemental truth regarding the essence of the phenomena. As such, I also reject any positivist notions of truth related to the social science inquiry at hand. Phenomenological research "assumes that there is more than one 'world' which can be studied because, … what appears to be the 'same' event … can be experienced in many different ways, so that there are potentially as many (experiential) worlds as there are individuals" (Willig, 2013, p. 16). I also subscribe to situated freedom, whereby individuals are free to make choices, but their freedom is not absolute; it is circumscribed by the specific conditions of their daily lives (Lopez & Willis, 2004).

Nevertheless, situationally embodied descriptions and interpretations are useful representations when reflecting upon the accepted psychological constructs which underlie the phenomena. Thus, despite my rejection of Husserlian descriptive phenomenology, and concerns related to the generalizability of an essential quality of the phenomena, I believe perspectival understanding can substantially improve our general

understanding of the phenomena. Most importantly, the value is derived from the depth

of the inquiry, and the possibility that the results will invoke novel theories and questions

that would not otherwise be invoked by assessing accepted practices and constructs. Also,

the contextual approach helps to examine contextual features of experiences, which can

apply directly to EE programming choices and methods (Lopez & Willis, 2004). Note

finally, that phenomenology is a significant aspect of the research method, and thus

questions regarding how I interacted with the research data, and my approach to

managing pre-conceived ideas and assumptions are elaborated upon within the methods

section.

Literature Review

Environmental Education and Nature Connection

Environmental education (EE) occurs in formal education settings, as well as non-formal settings including nature centers, camps, museums, zoos, and national parks (Stevenson et al., 2013). It is generally defined by its outcomes. They include, increasing knowledge and appreciation of the natural world, and developing the necessary skills and attitudes to address environmental challenges (Gilbertson et al., 2006; Stevenson et al., 2013). Some congruency exists between EE and Outdoor Education regarding the general outdoor setting and objectives. Outdoor Education however, frequently focuses on developing physical skills such as rock climbing, or sea kayaking which is uncommon in EE (Gilbertson et al., 2006). Despite the divergence, many are advocating for the development of approaches to outdoor education that promote sustainability (Hill, 2012). Now also termed Education for Sustainable Development, formal EE began as a sub-discipline within western education communities in the late 1960s and is now a recognized discipline with its own professional organizations, dedicated journals, and significant body of research (Heimlich, 2010; Stevenson et al., 2013).

The primary goal for environmental education programs is now frequently re-stated as "connecting participants with nature." Within academia the term "nature connectedness" is widely accepted as a construct defined within the psychological model of human/nature relations developed by Wesley Schultz. "Connectedness" in this context is defined as "the extent to which an individual includes nature within his/her cognitive representation of self" (Schultz, 2002, p. 67). As such, connectedness can appear to be in direct conflict with human/nature dualism. A dualist perspective requires separateness,

and connectedness requires an absence of separateness. Schultz notes that this "inclusion with nature" has a cognitive (connectedness), affective (caring) and behavioral (commitment) component. Schultz also argues that cognitive connectedness leads to caring and commitment, and that a path to true sustainability must be built through "inclusion" of nature within representations of self.

Measuring Connectedness – Quantitative Research

Since 2002 various scales citing Schultz have been developed to measure nature connectedness and attitudes related to nature connectedness; these include the Inclusion of Nature in Self (INS) scale, the Environmental Identity (EID) scale, the Connectedness to Nature (CNS) scale, the Implicit Association with Nature (IAT) scale, the Disposition to Connect with Nature (DCN) scale, and the Nature Relatedness (NR) scale (Brügger, Kaiser, & Roczen, 2011; Hefler & Cervinka, 2009; Meyer & Franz, 2004; Nisbet, Zelenski, & Murphy, 2009; Schultz, 2002; Schultz & Tabanico, 2007). Notably, there is large empirical overlap among the various measures, and the measures "largely reflect individual difference in a single psychological phenomenon" (Brügger et al., 2011, p. 325). Also, "the inter-correlations among the various measures were statistically significant and strong in magnitude," meaning the measures are markers of a common higher-order construct (Tam, 2013, p. 69).

Research employing these instruments has resulted in a diverse, introductory, and quantitative understanding of nature connectedness. For example, there is no significant difference between CNS scores of rural (n = 42) Manitoban youth and urban (n = 50) Manitoban youth, nor between adolescents (n = 178) and parents (n = 116) (Egger & Cervinka, 2008; Klassen, 2010). CNS scores are however positively and significantly

correlated with nature experience (n = 294, r = 0.34, p < .001), meaningfulness (n = 115, r = 0.27, p < 0.01), psychological well-being (n = 416, r = 0.15, p < 0.5), and social well-being (n = 418, r = 0.20, p < 0.001) (Cervinka, Röderer, & Hefler, 2012; Egger & Cervinka, 2008; Howell, Dopko, Passmore, & Buro, 2011). There is also a significant positive correlation between CNS scores and some conservation behavior (n = 131, r = 0.27, p = < 0.1), place attachment (n = 137, r = 0.25, p = < 0.1), and the environmental concern (n = 138, r = 0.53, p = < 0.1) of some Australian farmers (Gosling & Williams, 2010). Nature relatedness (NR) scores show a significant inverse correlation (n = 267, r = - 0.13, p = < 0.5) to hostility, and a significant positive correlation with psychological quality of life (n = 267, r = 0.14, p = < 0.5), and certain aspects of well-being (n = 170, p = < 0.1, Vitality r = 0.30, Personal Growth r = 0.35, Purpose in Life r = 0.27) (Nisbet, Zelenski, & Murphy, 2011; Tauber, 2012). Lastly, there is a significant positive correlation (n = 222, r = 0.43, p < 0.01) between rising seasonal temperatures and IAT scores (Duffy & Verges, 2010).

Three environmental education programs have been assessed for their impact on nature connection. The first quantitative study surveyed participants of a 3-5 day residential environmental education program (Stern, Powell, & Ardoin, 2008). The researcher-developed survey (α > 0.7) was administered to measure participant pre and post-experience nature connectedness, as well as connectedness scores three months after the program, according to the following indicia: (a) students feel comfortable in the outdoors; (b) students feel that they are a part of nature, rather than separate from it; (c) students actively engage in observing their surroundings when in natural settings; and (d) students show interest in outdoor activities. The participants (n = 183) who filled-out all

three surveys had a pre-test "Connection-With-Nature Index" mean score of 82.0 and a three-month follow-up mean score of 81.9. This was not a significant difference.

Notably, there were significant improvements in participant stewardship and environmental awareness scores. The researchers employed (a) *the Stewardship Index*, which measured attitudes toward environmental conservation, and their intentions/actions regarding environmental behaviors, and (b) the *Environmental Awareness Index* which included eight true/false/don't-know items and multiple-choice items regarding exotic species, biological diversity, and the national park. These results appear to highlight that students may develop an intellectual understanding, and perhaps even a commitment to preserving the environment without believing that all forms of life are united within their identity. In other words, students may commit to "not wasting food," with no inspiration from or impact on the degree to which they include nature within their self-image.

The second quantitative study examined the impact of seven different EE programs in the United States, by administering pre and post-program surveys to the program participants and control groups. The researchers selected seven programs using maximum variation sampling, and considered whether: (1) the program was an EE program; (2) the program exhibited a theoretical possibility for increasing participants' connectedness to nature; (3) one of the desired outcomes of the program, but not necessarily the primary outcome, was connecting children to nature; (4) the program indicated an initial willingness to be 'studied'; and (5) there was at least one teacher whose students participated in the program (treatment) who was willing to administer the pretest and posttest to their students and one teacher of a similar grade level, either at the school or within the district, willing to have students serve as a control group.

The first instrument used was *Cheng's Children's Connection to Nature Index* (α = 0.84). It includes items relating to children's feelings when in nature, their perception of the human–nature relationship, and their concern for plants and animals. "Results from the ANCOVA tests … suggest that none of the seven programs (treatments) were associated with an increase in participants' connectedness to nature" (Ernst & Theimer, 2011, p. 590). The researchers also administered the *Nature Connectedness Inventory* (α = 0.73), which they developed for the study. This instrument was used to reduce the threat to construct validity associated with using a single measure, and included the following indicia: (a) the extent to which people experientially view themselves as egalitarian members of the broader natural community; (b) feel a sense of kinship with it; (c) view themselves as belonging to the natural world as much as it belongs to them; and (d) view their welfare as related to the welfare of the natural world (two items). "Results from the ANCOVA tests using the *Nature Connectedness Inventory* suggest that two of the seven programs (treatments) may have been associated with an increase in participants' connectedness to nature (Ernst & Theimer, 2011, p. 591).

The study was limited in a number of ways. For example, there were differences between the treatment and control groups. In some programs, the participants all volunteered to take part in the EE program, and in other programs the treatment group participants were a grade ahead of the control group participants. For my purposes, this study serves to further highlight the challenge faced by environmental educators when attempting to influence participant levels of nature connection, and though the authors caution against strong interpretations, they also note that nature connectedness appears to be a relatively stable construct. They suggest that, "because attitudes change slowly, it is

not reasonable to expect a significant difference between a pre and post measure of

connection to nature" (Ernst & Theimer, 2011, as cited in Cheng & Monroe, 2012, p.

593). It is also possible that attitudes change slowly because we do not yet have an

effective mechanism for shedding false narratives.

      The third quantitative assessment of environmental education program impact on

participant nature connection was published after the data-collection of this study. The

authors administered an instrument to participant and control groups of 9-10 year olds,

and 11-13 year olds (Liefländer et al., 2013). The participants took part in a four-day

environmental education program, and the *Inclusion with Nature Scale* was used to

measure the impact. This scale uses a graphical representation of connectedness, whereby

participants choose the degree of overlap between a circle representing "nature" and a

circle representing their "self."

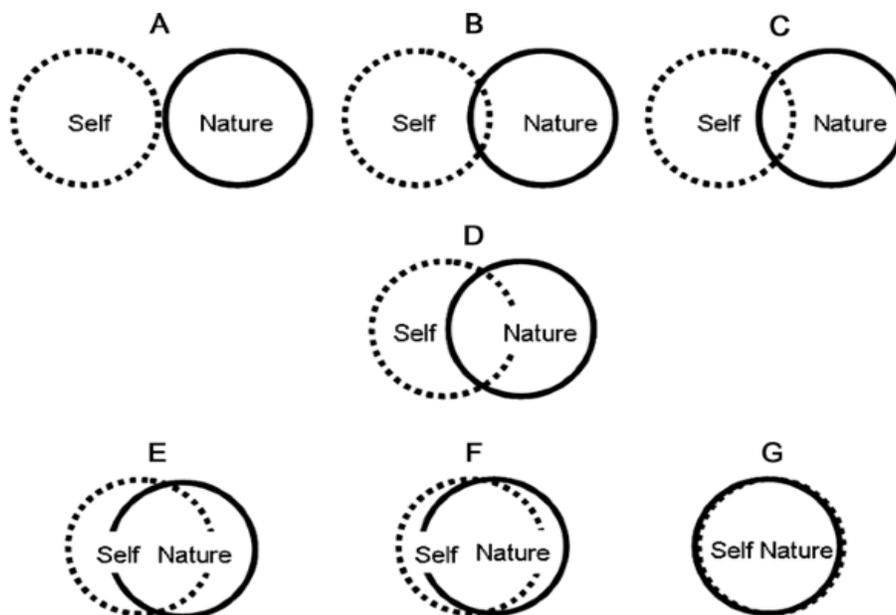*Figure 1.* Visualizing the process of nature connection according the Inclusion of Nature
in Self Scale (Liefländer et al, 2013).

The authors found a significant increase in the connectedness of both the 9-10 year olds (n= 135, pre-test median = 5.13, post-test median = 5.58), and the 11-13 year olds (n= 55, pre-test median = 4.07, post-test median = 4.25). Only the change in the younger group remained significant 4 weeks after the EE program (follow up test median = 5.36).

The reflective self-reporting nature of the instrument potentially limits the accuracy of the results (Brügger et al., 2011). It is possible that children are not readily able to appreciate concepts such as "self-image" and inclusion of nature within their self-image (Brügger et al., 2011). It is also notable that immediately after the EE program, students in the 11-13 year old age group had INS scores (post-test median = 4.25) that were much lower than the 9-10 year old students who had yet to participate in the EE program (pre-test median = 5.13). The researchers mention that *ecopsychologists* view children as born with a sense of relatedness to nature that is subsequently broken through socialization and emotional autonomy. However, they disregard that possibility and maintain that connectedness is derived from close interpersonal relationships.

Describing Connectedness – Qualitative Research

The qualitative studies located were an ethnographic case study investigating "canoe tripping as a context for nature connection," and a "phenomenological self-inquiry into eco-consciousness" for which the researcher participated in Mindful-Affective-Perception-in-Nature exercises (Freiman, 2012; White, 2011). Canoe tripping as a context for nature connection was an ethnographic study that involved the researcher participating in a ten-day canoe trip with nine teenage participants and two adult guides. The goal was to examine the relationship between participants' connectedness with nature, interactions with nature, and the characteristics of a canoe trip, according to the

researcher's interpretation of participants' accounts of their experiences. The researcher recorded the participants' impressions of nature connection related to their canoe tripping experience. Major themes drawn from those conversations were the following: (1) comfort was associated with connection, and discomfort was associated with disconnection; (2) human impact and the presence of civilization altered the context of the trip and influenced nature connection; (3) the relation with the trip leader may be another mediating variable with regards to developing nature connection (Freiman, 2012). Notably, the researchers stated that "there is no available research on the characteristics of outdoor adventure and outdoor environmental education programs that support connection with nature" (Freiman, 2012, p. 15). Thus, the study is limited in that they were implementing an outdoor adventure program, as opposed a program specifically designed to achieve EE outcomes.

The phenomenological self-inquiry into eco-consciousness involved the researcher participating in eighteen months of Mindful-Affective-Perception-in-Nature (MAPIN) exercises (White, 2011). The researcher completed 33 MAPIN sessions, each of which lasted one to two hours in a nature setting. The MAPIN sessions were developed with the help of environmental educators and incorporated the following: (1) place familiarization, (2) meditation, (3) sound mapping, (4) mindful listening, (5) mindful vision, and (6) mindful touch. The researcher completed worksheets with each session, and a thematic analysis demonstrated 16 categories associated with nature connection and heightened eco-consciousness: (1) sense of reverence, (2) humility, (3) connectedness, (4) ecological awareness, (5) being/being, (6) sense of place, (7) ecological sense of self/self, (8) restorative/therapeutic experiences, (9) spiritual meaning,

(10) personal insignificance and vulnerability, (11) sense of wildness, (12) appreciation of nonhuman otherness, (13) oneness/communion, (14) perceptual acuity, (15) solitude, and (16) mindfulness. The researcher also provided insight regarding barriers to nature connection.

> … a number of barriers to evoking heightened states, or deepening eco-consciousness, were identified including the persistence of low energy states (lethargy, tiredness), persistent negative emotions originating prior to the sessions, not sustaining mindfulness throughout the session, being distracted by nearby human activities, and becoming distracted at key times, especially the more intense connecting activity, due to hunger, discomfort, and proximity of venomous snakes (White, 2011, p. 47).

Method

The research method I employed incorporated three distinct though overlapping stages. First, I *developed an animist ontology*. I followed three strategies to accomplish this. They included:

- develop an openness to porosity through (a) personal decolonization, (b) self-renunciation and (c) choosing an appropriate research setting;
- quiet my mind with mindfulness meditation; and
- identify and develop skill in a range of methods for communication with other-than-human life.

Second, I *experienced the phenomena of nature connection through an EE program, and began preliminary data analysis*. I followed two strategies to accomplish this. They included

- develop and maintain a phenomenological research perspective, and
- daily reflection upon the pre-reflexive experience to create initial interpretations and representations of the phenomena.

Third, I *finalized arts-based representations of the phenomena*. I followed two strategies to accomplish this. They included

- an interpretative process characterized by an immersive and iterative, inductive and deductive analysis; and
- collaboration with local artists to leverage their technical art skills.

Develop an Animist Ontology

The critical evaluation of EE research methods, and the development of methods that disrupt the human/animal divide in research is an issue worth addressing

(Greenwood, 2010; Kuhl, 2011; Oakley, 2011; Oakley, Watson, Russell, Cutter-Mackenzie, Fawcett, Kuhl & Warkentin, 2010; Rennie, 2008). EE researchers must "begin to address critical, feminist and postmodern challenges, and strive for more in-depth qualitative analyses" (Reid, 2003; Stevenson et al., 2012, p.11). The response that I chose to these suggestions was to enact a research methodology based on the animist methodological research framework developed by M. J. Barrett (2009, 2011). It is the result of M. J. Barrett's 2009 Dissertation *Beyond Human-Nature-Spirit Boundaries: Research with Animate Earth*, and her 2011 article *Doing Animist Research in Academia: A Methodological Framework.*

> It is based on the premise that humans are not the only communicative beings, and humans would be well-served by finding ways to (re)learn, and practice the many languages through which earth speaks (Abram, 1996; Berry & Tucker, 2006; Fawcett, 2000; Griffin, 2001; Harvey, 2003, 2006a, 2006b; Plumwood, 2002; Sheldrake, 1999; Sheldrake & Smart, 2000; Smith, 2004, 2006, as cited in Barrett, 2011, p. 129).

 I was initially attracted to her language regarding the legitimacy of other-than-human voices based on the feminist post-structural theory outlined in my theoretical framework, and found that she offered a useful and specific framework for a new researcher to follow in order to research a topic through an animist perspective. Her dissertation offers a four step non-linear practical application framework to apply to unique settings and circumstance: (1) Achieve openness to porosity, (2) Quiet the mind, (3) Identify and develop skill in using a range of methods (for communication), and (4) Use forms of re-

presentation that enable both researcher and reader to create meaning *through*, rather than just *about*, an animist ontology.

Openness to porosity.

Porosity refers to a state of openness to the communicative channels of other-than-human entities (Barrett, 2011). It is akin to reducing the "cultural noise" which may impede communication between humans and the other-than-human animate. By "cultural noise," I am referring to the constructed ideas regarding the absence or illegitimacy of other-than-human voices. As a conscious attempt to develop porosity, and cultivate my stated theoretical perspective, I engaged the following strategies: (1a) create and enact a process of personal decolonization prior to and during the phenomena, (1b) engage a personal art-based self-renunciation ritual, and (1c) choose an appropriate research setting.

Personal decolonization.

As I completed course work in preparation for this thesis I became ever more aware of unconsciously deep seeded assumptions about truth and reality. The narratives that created a context for the identity that I assumed began to appear as "inherited" and "questionable." More than any time in my life, my thesis research to date has created an openness and space to understand what "could be" as opposed to what "is." This experience became better understood while preparing my thesis proposal, as I read about the feminist poststructural theory upon which this method is based (Barrett, 2005). I found that actively challenging inherited assumptions regarding truth and reality is (1) precisely to what other-than-human life is entitled, and (2) what an "openness to porosity" demands. Thus I created strategies for decolonizing my mental space prior to

and during the topic phenomena. These strategies were meant to help me dig through the encyclopedic web of ideas and narratives that form my understanding of reality, in order to discard falsehoods and promote an openness to new forms of communication and understanding. More specifically, the process was meant to help challenge notions of human separateness and superiority, and open my body to the communication of other-than-human life. The process I created is described here, and elaborated upon in my discussion, as it became an important theme within this research project.

The process I enacted was an adaption of the societal decolonization process developed by Poka Laenui to my individual context. First, the process developed by Poka Laenui (2000) suggests that the process of decolonization could involve the following steps; (1) rediscovery and recovery, (2) mourning, (3) dreaming, (4) commitment, and (5) action. They were developed from Laenui's personal experience in Hawai'i, and observations of decolonization in a broader societal context. These stages refer to the decolonization of society, and thus I adapted them to the microcosm of my psyche. It is possible that adapting this framework is a form of indigenous knowledge appropriation. The adoption (and adaption) by one cultural group of a cultural form drawn from a different culture, typically in order to resist an imposed cultural identity has been termed "strategic anti-essentialism" (Chandler & Munday, 2011). How and when adaption of cultural product is appropriate is at times a challenging line to draw. Appropriation can be especially harmful when the product being appropriated holds a sacred meaning for a minority group, and the act of appropriation reinforces an exploitive power structure. In this case Poka Laenui is of Native Hawaiian, with Chinese and Caucasian ancestry. He has given me explicit permission to adapt his writings as I see fit, and did not credit his

writings to a specific cultural group (personal communication, December 27, 2014). As such, I do not view adapting the Laenui process as appropriation of a sacred cultural practice, but rather an approved application of the academic work of Poka Laenui.

The following is my adaptation of Laenui's process of decolonization. This process occurred previous to, and during the data collection phase of this research project as a reflexive art-based journaling experience framed upon the five steps mentioned above. It became an influential aspect of the research experience during the first 10 days of the phenomena, and its influence permeated the whole experience. First, *Rediscovery and recovery* began as a reflection upon how the ways of being and knowing of my ancestors are my way of being and knowing. I imagined how my ancestors arrived at Campbell's Cove, PEI and how they subsequently treated each other, other humans and other-than-humans. I reflected upon how those values became my values. For example, I reflected upon my grandmother's stories, and the narratives she described with pride or judgment. For example, she professed a great love for horses and used them for many years as transportation. I reflected upon my grandfather's choices, and what they told me about reality. For example, he ran a farm and went to the mainland to cut lumber in the winter. It became a critical examination of the history of my life and my ancestors, the values we/they held, and the actions those values inspired. By critical examination, I mean that I questioned the truth of the narratives I inherited.

Mourning, the second stage became the experience and process of judging certain values and deep seeded beliefs as false. I have great affection and love for my ancestors. It saddens me to think that they were perhaps mistaken about the nature of reality. It saddens me to think that I might also be mistaken about the nature of reality.

Nevertheless, rejecting potentially false narratives and mourning the experience of living within them is, as I experienced this process, necessary. In a sense, the mourning process was part of the wounding of the colonizer within my psyche. I found "mourning" to be an appropriately empathic process for this type of critical self-reflection. It was appropriately empathic because my inexperience in living a respectful communicative relationship with the other-than-human animate was initially a source of pessimism and resentment. "Mourning" reminded me to view my ancestors and current state with tenderness, versus feeling entitled to immediately experience an animist ontological perspective.

 Dreaming became gathering the energy needed to become hopeful that "openness to porosity" was possible. I envisioned a communicative relationship. I envisioned a compassionate and intimate relationship. I became hopeful. *Commitment and Action* became the final step, and was the physical action of practicing porosity with openness and determination, while maintaining a critical view of assumptions and opinions that continued to arise. This was a commitment to a process (*the EE program and research method*), and not an outcome (*experiencing unity*). The process will be appropriately explicated bellow.

 Art-based self-renunciation.

 Second, to develop an openness to porosity, I engaged a personal art-based self-renunciation ritual inspired by *Works of Love* by Kierkegaard, and selected Hindu Upanishads (Chilisa, 2012; Creswell, 2007; Olivelle, 1992). Kierkegaard states that "self-renunciation casts out all preferential love just as it casts out all self-love" (Kierkegaard, 1962, p. 67). Here I interpreted "preferential love" and "self-love" to exist as the

hierarchical value I place on the lives of different humans and other-than-humans according to inherited cultural narratives. The act of self-renunciation is also described by Hindu Upanishads. "At the conclusion of the renunciatory rite, the renouncer turns his back on this home and village and walks north" (Olivelle, 1992, p. 101). The renouncer must then abstain from performing any rites, including the prayers and rituals that can so define a person, and in turn transcend them on a path towards liberation (Olivelle, 1992).

While researching descriptions of self-renunciation I was attracted to the theme of liberation. I thought that perhaps achieving and openness to porosity meant being liberated from the mental fences and barriers to unity. Therefore, during the data collection phase of the research project I took part in a daily art-based self-renunciation ritual. I drew my belief in human superiority as chains. I drew my belief in my personal exceptionality as handcuffs. I drew my desire for importance as blindfolds. With each drawing I renounced the aspects of my self-image that founded human/nature dualism. I rejected human superiority, personal exceptionality, and personal importance.

It was an effective tool to help overcome my colonized psyche, and notions of "preferential love." It became a visual deconstruction of dualism that left me with a daily sense of unparalleled freedom and openness. It became a crucial part of my research. Notably, it also became an intensive daily re-enactment of the first three steps of my adapted Laenui decolonization process (*Rediscovery/Mourning/Dreaming*). I explored my dualist values (*rediscovery*), criticized them (*mourning*), and felt an intense readiness to other possibilities (*dreaming*).

Choose an appropriate research location.

Openness through personal decolonization is threatened by feeling physically unsafe. During a previous wilderness solo in the hardwood forests of Quebec, I chose to retreat to a safer more human-inhabited location after a few events led to feeling unsafe. I was sleeping without a shelter on the forest floor in November. It was cold, and the air in my air-horn condensed. When a number of large animals came close one night, and my first defense turned out to be a squeaky sigh, I didn't feel safe. I had a can of bear spray, but was concerned that it had also condensed. I had planned a 30-day wilderness solitude experience, and retreated on day five. Nevertheless, I have also completed a 3-day wilderness solitude experience in a forest near Collingwood Ontario, 5-days on an island off the coast of PEI and 8-days on an island in the middle of the Yukon River. Given these varied experiences I chose a setting that was remote and safe.

According to my personal experience and expertise, I chose an island that was "safe." It was inhabited by a large variety of other-than-human lives, though no other human lives. I chose this island because it is a location where there was little chance of being preyed upon by other-than-human animals. It was possible that there would be coyotes, but nothing larger. Also, it was safe because I was able to communicate with human emergency services from most parts of the island. These considerations were the pillars of my physical risk management strategy, and guarded against falling off my personal "edge." This experience is echoed in White's statements regarding becoming distracted at key times due to the proximity of venomous snakes (White, 2011). It is also noted rather eloquently in *Coyote's Guide to Connecting with Nature*:

You have to watch carefully for what will capture their curiosity, engage

their natural gifts, and challenge them in ways they can handle in their

personal learning journey. Look for their edges: the edge of their comfort

zone, the edge of the awareness, the edge of their experience. Then, you can

stretch and pull them to a new edge, and then another, deeper and deeper

into a sense of comfort and kinship with the wildness of the natural world

(Young, Haas, & McGown, 2010, p. 11).

It is therefore important to note that managing the physical risk associated with the

research location is an important aspect of developing an openness to porosity.

Beyond these requirements for a "safe" location, I also chose a "wilderness"

setting. Presumably as the divide between human and other-than-human animals narrows,

social constructs such as wilderness and natural will become less meaningful

(Gruenewald, 2003). However, for this project I deemed the "edge" of my awareness and

experience to require that I engage a wilderness setting. Connection to the life within

other-humans is part of an animist ontology, however I assumed it would have been

distracting when attempting to develop an intimate communicative relationship with

other-than-humans. By "distracting," I mean that any communication with other humans

risked reinforcing human-nature dualism and other inherited notions of human

superiority.

In summary, stage 1 of my research process was to develop an animist ontological

perspective. The first of four steps to develop an animist ontological perspective was to

develop an *openness to porosity*. In order to develop an openness to porosity I

- engaged a process of decolonization based on the work of Poka Laenui;

- engaged a daily and liberatory art-based self-renunciation ritual; and

- chose a safe and wilderness research setting.

Quiet the mind.

There are a variety of methods used to quiet the thinking mind. I am familiar with two and applied aspects of both the mindfulness meditation teachings of Thich Nhat Hanh, and the sacred silence teachings of Stalking Wolf. Both sources provide instructions for bringing attention to something occurring in the present moment, and managing thoughts as they arise in the mind (Brown Jr., 1993; Hanh, 2009). Both sources also provide instructions for relaxing the physical body, for maintaining a quieted mind during non-sedentary activities, and for developing empathy for the other-than-human animate. I implemented a daily morning meditation regime. It immediately proceeded the art-based self-renunciation ritual each morning, and occurred sporadically throughout the day during times when I became particularly detached from the life within and around me.

Identify and develop skill in using a range of methods.

Stalking Wolf's observations led to important discoveries. Bird voices told him where to find the nearest fox or owl. The wind told him how to approach a deer or rabbit. The acorns told him whether the hunting would be good next year...When I was very young, one day I wanted to know how Stalking Wolf could tell there was an owl in a tree without even looking up, and he said, "Go ask the mice"... I am no longer surprised that Stalking Wolf was always talking to the earth. To him, everything was alive and pulsating, and he wanted to connect and communicate with it.

Sometimes this was a conversation of words, but more often it was a

conversation of the heart (Brown Jr. & Morgan, 1984, p. 20-22).

The Stalking Wolf mentioned in the passage above was born into a nomadic clan

of Lipan Apache around 1880 (Brown Jr., 1993). Fortunately for those interested in

connecting with nature, he mentored a number of other humans who continued teaching

skills for nature connectedness. Tom Brown Jr. was a student of Stalking Wolf's for 10

years in the Pine Barrens of New Jersey. He has published dozens of books outlining the

teachings of Stalking Wolf, and mentored many students who have gone on to open their

own schools and publish instructional books. I participated in a two-week course with

Tom Brown Jr. in 2009, and have practiced some of Stalking Wolf's teachings as a hobby

since then. I would consider myself a beginner; however, the skills I do have allow me to

confidently identify and declare an ability in a "range of methods" for communication.

These methods are best categorized as *Natural Awareness and Movement*, and form the

third part of Barrett's animist framework.

Examples of natural awareness development include: (a) diversifying and fine-

tuning skill associated with sight, hearing, smelling, tasting, and other sensing, (b)

developing skill associated with silent movement and camouflage, and (c) developing

skill associated with tracking. Activities to support these strategies form an elaborate

effort of listening to the other-than human animate world. By way of analogy, it is similar

to learning to communicate in a new culture where the language is not words, and the

language is almost imperceptibly slow. However, by developing skills in observation,

stalking and tracking as taught by Stalking Wolf, and Tom Brown Jr., the natural world

can be heard and understood (Brown Jr., 1993; Brown Jr. & Morgan, 1983, 1984; Young

et al., 2010). Specifically, my effort to develop skill in a range of methods for communicative interaction, were always preceded by self-renunciation and meditation and involved (a) sit spotting, (b) mindful watching, (c) mindful listening, (d) mindful touching/feeling, (e) mindful tasting, (f) tracking, (g) imagining and practicing other-than-human movements, (h) plant identification, and (i) other-than-human animal identification. These practices are based upon the idea that heightened and intimate awareness allow the participant/observer to decipher the concentric circles of consequence created by the behaviors and vocalizations of other-than-human life, into a coherent expression.

Data Collection

The Phenomenon.

The subject of this study is "nature connection." To experience this phenomenon I designed a custom environmental education program. During the summer of 2013, I set up a minimalistic base camp on St. Peters Island, P.E.I., Canada. It included a small tent, cooking area, and a large plastic container to shelter electronics and journals. For the subsequent 40 days, I experienced (1) art making, (2) natural awareness development, (3) wilderness solitude, and (4) wilderness living.

Art Making.

Developing nature connectedness through art making is supported by numerous environmental educators (Carr, 2004; Malosh, 2010; Song, 2012; Young et al., 2010). These articles suggest that art making provides an accessible method to develop intrinsic appreciation of the animate world by engaging the cognitive, affective and psycho-motor aspects of the participants (Carr, 2004; Malosh, 2010). Nature-inspired art making is also a historic aspect of human culture (Malosh, 2010). In preparation for the isolating EE program I gathered art supplies including the following: pens, journals, water color paints, chisels and hammers, knives, a ukulele, an audio recorder, a camera, and a video camera. During the 40 days genres emerged organically through the experience. They included (a) gathering a variety of sound recordings, and photographs of the area, (b) writing poems, (c) processing clay and making pottery, (d) processing red osier dogwood bark to make rope, (e) gathering materials and creating bow drills sets, and (f) carving sandstone sculptures. I was not drawn to creating songs or creating visual representations

of the area. I explore my choice to utilize certain art-based methods over others in the discussion.

Natural Awareness Skills.

Natural awareness skills are becoming increasingly popular in environmental education. Most books declaring advice on connecting with nature offer at least some advice on developing natural awareness skills (Cohen, 1989; Young et al., 2010; Stebbins, 2012; White, 2011). Most notably, the landmark publication *Coyote's Guide to Connecting with Nature* is filled with exercises and activities to promote natural awareness skills (Young, et al., 2010). The authors suggest thirteen core routines of nature connection and many are related to awareness. They include (1) sit spotting, (2) expanding senses, (3) tracking, (4) learning from animal forms, and (5) listening for Bird language. I followed these routines as well as suggestions advocated in Tom Brown Jr's *Field Guide to Nature Observation and Tracking* (1983).

Specifically, a significant portion of each day was dedicated to slowly navigating the area while focusing on heightening an element of corporeal awareness. These were long wandering exercises that might begin by following fox tracks for a kilometer down the beach while attempting to imagine the precise movements and emotions of the fox. Then I might move inland to a more protected area and listen to song birds speak, or softly gaze upon a field waiting for a hawk to appear from the forest and search for prey. Then I might find an interesting plant, and examine it for a while using a variety of senses. These excursions were long, deliberate, and slow movements that would exercise and expand all the sensory tools I could bring within my awareness. Occasionally they

would last from directly after my morning routine, until long after sunset, and take me through most of the Island.

Wilderness Solitude.

The 'solo', is a historic and increasingly prevalent aspect of any extended outdoor/environmental education program. Generally, the activities last between a few minutes and 24 hours when delivered to individuals who have little experience. I have completed multiple wilderness solitude experiences of three, five, and eight days in length. For this program, I completed approximately forty days of wilderness solitude. The solitude was interrupted on five short occasions. Once, two people walked over at low tide; once, two people surprised me on a rock as they sea kayaked around the island; and three times a small boat landed on the beach and the occupants collected sea glass for a short while. Each interruption created one or two minutes of conversation and was experienced as neither a relief nor an inconvenience. Some methods for managing wilderness solitude are described in *Exploring the Power of Solo, Silence, and Solitude* (Knapp & Smith, 2005). The authors offer suggestions for preparing for solitude, activities to pursue during solitude, and methods to debrief the experience. I used this resource for previous wilderness solitude experiences, but this was mostly a very comfortable and normal endeavour that only required a simple choice to request that my friends and family not come to the island to visit. They kindly respected that request.

Wilderness Living.

Wilderness living is another core routine suggested in *Coyote's Guide* (Young et al., 2010). The authors suggest that, "nothing gives us more meaningful relationship with nature than really putting ourselves out in the elements and living off the land. It creates

the ultimate need to learn" (Young et al., 2010, p. 67). I was personally drawn to

wilderness living as an appropriate challenge for promoting engagement with the natural

world, and as a means of becoming directly reliant on the animate beings in my

immediate environment. Tom Brown Jr's guide to *Wilderness Survival* and guide to

Living with the Earth are the most useful tools I have found over 10 years as a wilderness

leader, and I chose to follow his teachings during the wilderness living experience

(Brown Jr. & Morgan, 1983b, 1984). Previous to this experience I had enjoyed a four and

six-day wilderness living challenge. For the purposes of this program, I chose to

experience 14 days of wilderness living within the 40-day phenomenon. I did however

limit the challenge to relying on the immediately available animate lives for food only. I

kept industrial manufactured tools to provide (a) shelter from the rain and mosquitoes,

and (b) a convenient way to store and purify water.

The wilderness living experience was the final 14 days of the 40-day EE program.

It began by fasting for two days. During that time, my hunger subsided and finding food

became less urgent, allowing me to more consciously interact with the other-than-human

animate to nourish my survival. Once I started eating, my day was ruled by the time of

the daytime low tide. Generally, one occurred during daylight, and the other at night, and

thus there was usually only one opportune moment to collect bar clams, razor clams and

moon snails. Coincidentally, this was also the time a large variety of sea birds enjoyed

congregating on the outer edge of the tidal flat. The remainder of the day I roamed the

landscape in search of edible plants. I found patches of raspberries, dewberries and

strawberries. I harvested pine bark, fireweed, clover, cattail roots, wild sarsaparilla

rhizomes, and wintergreen. I spent the evenings reading through the various plant guides

I had brought along and sleeping long silent nights.

The Phenomenological Method.

Phenomenological inquiry focuses on the direct lived experience of a human with

the phenomena, and demands heightened researcher awareness (Abram, 1996; Creswell,

2007). Phenomenological inquiry enhances understanding of what humans actually

experience in their lives by exploring the direct feelings, thoughts, and awareness of

actual life (Moran, 2000; Patton, 2002; Rehorick & Bentz, 2008; Schwandt, 2007).

Phenomenological research is also characterized by the necessity of enriched

consciousness awareness and suspension of assumptions on the part of the researcher, to

deter the meaning and significance of a phenomenon from being predetermined

(Rehorrick & Bentz, 2008). The process is generally characterized as two-fold: (1)

Epoché, and (2) Expression/Validation (Roth, 2012).

Epoché, is also known as bracketing, and is a process of regular self-reflection, to

critique interpretations, assumptions, judgments or opinions that may develop. (Funke,

1987). The process differs according to the phenomenological approach. For example

descriptive phenomenology is inspired by Edmund Husserl's desire for scientific rigour,

and demands researchers use a bracketing process to experience reality as "objective and

independent of history and context" (Lopez & Willis, 2004, p.728). Alternatively the

tradition of interpretive phenomenology accepts personal knowledge as helpful, and pre-

conceived ideas need only be appreciated and understood (Lopez & Willis, 2004). Thus,

bracketing becomes "both a cyclical process and something which can be only partially

achieved" (Smith et al., 2009, p. 25). The process of bracketing is not standardized, and

for my purposes I chose to engage an informal interpretive and reflexive process through

the data gathering and analysis stage of the study (Hamill & Sinclair, 2010; Tufford &

Newman, 2012; Wall, Glenn, Mitchinson, & Poole, 2004).

Primarily, the bracketing process helped me to manage the fear associated with

the possibility that despite my effort, I would experience no "connection," and would

have little insight to offer. Despite this fear, during moments of clarity prior to the data

collection phase it was easy to appreciate *experiencing no connection* as nevertheless

useful and insightful. I employed the bracketing process to remain within these moments

of clarity. Each day I was reminded of (a) my desire to successfully connect with nature,

(b) my desire to successfully complete the research project, and (c) my desire to discover

an exceptionally significant and novel truth. These appeared to be my most pressing

biases, which risked skewing interpretations of my experience with the phenomena. Thus,

the bracketing process became thousands of repeated assessments of the pre-reflexive

experience as *authentic* or *influenced* in some measure by my desire for academic

success. It was a constant and cyclical assessment of pre-reflexive experiences within a

spectrum of authenticity. For example, for a short time I felt that art-making was a

connecting process, because (a) the theory cited in my thesis proposal supported it as

promoting connection (b) it was part of my selected EE program, and (c) the bias cited

above. However, by remaining open to other possibilities, and assessing the authenticity

of my direct experience I shortly found that my style of art-making meant that I was

creating evocative human-to-human communicative tools. Thus, the creative process was

full of imagining how other humans would perceive the end result, and rarely aided the

development of my "nature connection." Note also, that the assessments of authenticity

of pre-reflexive experiences became increasingly contextualized as the EE program progressed.

Secondarily, the bracketing process helped me to continue questioning assumptions and interpretations that began to solidify during the concurrent data collection and data analysis phase. Because the analysis began during data collection and occurred concurrently, I found that emergent theories of nature connection could feel proprietary and skew my interpretation of subsequent experience. For example, as I experienced moments of unity, I found that the process that led to unity was not captured by Schultz's model of increasing nature connection, based on the theory of *inclusion of nature within the concept of self* that is visualized by gradually overlapping circles. My instinct was to believe that I was right, and Schultz was wrong; however, the bracketing process allowed me to become aware of this instinct. As a result, I *remained* sensitive to the nuances of the direct experience even as the interpretive process became increasingly developed and empowered with the inertia of my increasing experience with the phenomena.

The Data.

The data that phenomenological researchers require is generally in-depth first-hand accounts of human experience with the phenomenon. Frequently researchers incorporate a structured textual analysis of interview transcripts. In this case, as a participant researcher, I had direct access to my pre-reflexive experience with the phenomena. Thus, the research data in this context became (a) direct experience, and (b) physical evidence of direct experience. This data was incorporated immediately in a data analysis process that revealed preliminary interpretations as I speculated regarding

possible explanations for the pre-reflexive experience (Mayan, 2009). I also created preliminary representations of the data. In the phenomenological research described in the literature review, White describes the process as follows: "…understanding is co-evolutionary in the sense that it evolves in the dialectical process of observing, reflecting and developing emergent understanding" (White, 2011, p. 29). The results of the intra-phenomenon preliminary analysis became useful secondary data for the more deliberate post-phenomena analysis process.

Specifically, each day during the research period I implemented (a) my strategy for achieving an openness to porosity (animist ontology), and (b) aspects of the self-prescribed EE program. This created an impact upon my understanding of the world through phenomenological knowledge creation. This impact was a pre-reflexive direct experience with the phenomenon and exists as primary source data. Throughout the day, my pre-reflexive experience was interrupted momentarily by spontaneous micro-interpretations and assessments of the phenomenon. It appeared to be the pre-reflexive corporeal experience interacting with constructivist notions of reality. Each evening I consciously reflected upon, and contextualized the data as preliminary interpretations while bracketing assumptions and previous interpretations. I also began working with preliminary interpretations by creating preliminary representations of the phenomena. Each evening I imagined, described and drew potential art-based representations of the experience to explore the authentic elements of my contextual experience. I also reviewed the diverse physical remains of the day (crafts, plants, photographs, and sound recordings), and incorporated them within the development of preliminary interpretations and representations. This process meant that data collection and data analysis were

iterative until the end of the EE program, at which point I began a structured process to

create precise and evocative final representations of the phenomena.

Represent the Phenomenon.

The *process* and *nature* of nature connection, as I experienced it through the

impact of the EE program is best represented through multi-sensory communicative tools.

Now that alternative and holistic forms of representation are considered legitimate means

of knowledge creation, I was free to pursue the representational tools best suited to my

research questions (Barone & Eisner, 2011; Boydell, Gladstone, Volpe, Allemang, &

Stasiulis, 2012; Knowles & Cole, 2008; Leavy, 2009; Seifert, 2009). Art as an evocative

representation of nature connectedness has the potential to create empathic participation

for the viewer. For some, this type of representation may re-define the conceptual

meaning of research; however, the emotional connection through art *reveals complexities*

which "the facts, deconceptualized as they often are," may not be able to uncover

(Barone & Eisner, 2011, p. 3). As this study is meant to raise questions about theories of

nature connection, and the associated EE practices, a representation form that evocatively

reveals complexities is deemed appropriate. There are thus advantages to representation

through art, and despite criticism that art is merely an ambiguous reduction of the

experience, it remains a legitimate, relatable, and helpful representation (Knowles &

Coles, 2008). Furthermore, the diversity of the representation that art allows is also a

helpful and deliberate attempt to aid the creation of meaning for a broader audience. Most

importantly however, these art-based forms of data representation allow me to create

consistency and coherency between the phenomena in question and the representation of

its impact. In other words, the multi-sensory aspect of nature connectedness is best represented within a multi-sensory representation.

The development of art-based representations began during the iterative collection and analysis process, and continued more thoughtfully as I worked with the data post-phenomena. After the phenomena, I attempted to apply patient and thoughtful technical skills to re-present the findings. I did not want my field crafts, audio recordings, or journal entries to simply "speak for themselves." I wanted to communicate the phenomena. I wanted to express an exceptionally coherent and accessible message, through a series of art-based representations. I wanted the humans who experience the representations to feel authentic aspects of my pre-reflexive experience, while the complexities of "nature connection" reveal themselves.

First, the analysis process incorporated an *inductive analysis* strategy (Denzin & Lincoln, 2003; Mayan, 2009). I immersed myself in the body of data in order to better comprehend the data collected. By immersing myself in the data, authentic interpretations of the phenomena became more apparent. This holistic immersion and interpretation process allowed *meaning and themes* to emerge through increasingly contextual understanding. As each element of the phenomena was juxtaposed with other elements in a cyclical fashion, the meaning and themes that emerged became increasingly concrete. Note that this process is analogous to the process used by Warburton and Saunders in *Cartoons and Teacher: Mediated Visual Images as Data* (1996). It provides an example of advancing from individual data piece interpretation to establishing trends and themes during visual data analysis. Given, however, that my data included such diverse (a) representations of the phenomena, (b) physical evidence of the phenomena, and (c)

access to pre-reflexive experience with the phenomena, my process of immersion, interpretation, distillation, and re-presentation of the phenomena emerged somewhat more organically. For example, as preliminary representations emerged I applied a *deductive analysis* to them. I juxtaposed the representation and the pre-reflexive experience to assess whether the ideas I had arrived at had merit, or were somehow monsters of a failed process. It was iterative. The representations that I chose as authentic became contextualized as I finalized other representations, and that context shifted their communicative effect.

Post-phenomena I also leveraged the technical art skills of professional artists to finalize the results of this study and represent the process and nature of nature connection that I experienced. Initially, I provided the idea I was trying to convey, and a drawn design idea. I gave the artist some freedom to express the idea. Generally, I found giving freedom to the artist was ineffective because the message I was trying to communicate became more ambiguous than I preferred. For example, one professional painter was kind enough to paint an abstract representation of the process of nature connection as I experienced it and explained it. However, I didn't recognize what I wanted to communicate in the final product and the painting is not part of my results. In another case, I believe the artist tried to actively undermine the message I was trying to convey. After those experiences, the collaboration process became (a) explain the idea I want to convey, (b) provide specific instructions and designs, (c) provide specific editing instructions, and finally (d) choose whether to include the work, bring the finished product to another artist for further editing, or exclude it. I am using the word edit as short-hand for any alteration to the work. Without exception, the artists I worked with

were responsive to this new process. They understood I had a clear vision and message, and were enthusiastic about providing technical assistance.

There were two exceptions to the above. The music for *Meeting the tide where it's at* was completed by two musicians (Devin Krauskopf, Devon Ross) after they saw the original film. The original film audio was a soundscape. They wrote a violin and guitar instrumental that I experienced as expressing an evocative authenticity. It became part of the results. The cross-stitch *Unity* was also a collaborator's original design that captured an authentic aspect of the phenomenon. I provided the phrase and Carina Phillips added a human in wolf's clothing. My interpretations of the results are included in the discussion.

Results

http://randycampbell7.wix.com/portfolio

Table 1

Summary of results

Title	Medium	Collaborator
Hierarchical	Wood, photography, rope.	NA
Come by it honestly	Cross-stitch, objects.	Carina Phillips
Mocking	Comics.	Liam McKenna
New at this + Recipe	Poems	NA
The reveal	Acrylic paint, textile	NA
Shelter	Photography	Megan Burnside
Self-Renunciation	Drawing	NA
Awareness	Ceramic, sounds, textile, rope	Megan Burnside
Decolonization	Interactive Assemblage	Jonah MacDonald
Dreaming 1 + Dreaming 2	Poems	NA
Meeting the tide where it's at	Film	Oakar Myint, Devin Krauskopf, Devon Ross, Millefiore Clarkes
Endless + Raspberries and Clams	Poems	NA
Unity	Cross-stitch	Carina Phillips

Discussion

This study is meant to raise questions regarding the *nature* and *process* of nature connection in order to inspire refined theories of human/nature relations, and refined approaches to environmental education programming for nature connection. The results are representations of my direct experience with the phenomenon of attempting to connect with nature through a custom environmental education program. The depth of my experience expressed within the results is a helpful starting point for continued critical analysis and theorizing. The results are not answers, as much as they are questions. Furthermore, the discussion is not a qualitative result. Though qualitative descriptions of the experience are included, what follows is but one explanation of the arts-based representations. These descriptions of the experience are not essential aspects of nature connection, nor do I explain positivist elements of human/nature dualism. Though I discuss human/nature dualism, my conclusions are, as per descriptions of my experience with nature connection, confined to my own experience.

The Process of Nature Connection.

The phenomenon that I experienced was the customized environmental education program that I completed over 40-days on St. Peters Island. Experiencing such a phenomenon was meant to impact my "nature connectedness" and provide some insight into the *nature* and *process* of nature connection. During the phenomena I also had certain research method responsibilities. These are described in the methods section, and included strategies to experience the phenomenon with an animist ontological perspective. Notably, according to M. J. Barrett's framework, it is *through* an animist ontology that I am meant to represent the *nature* and *process* of nature connection (2011).

"Using forms of re-presentation that enable both researcher and reader to create meaning *through*, rather than just *about*, an animist ontology" is the 4ᵗʰ directive provided by M. J. Barrett (2011, p.129). The animist framework is a research method, as opposed to a topic of study.

This was problematic for two reasons. First, some of the methods I used to develop an animist ontological perspective were also the methods I used within my prescribed EE program, and thus the research method became a part of the phenomenon I researched. Second, I have also found it exceedingly difficult to separate the EE program from the processes that are exclusively cited within the strategies for developing an animist ontological perspective. *Personal decolonization to improve porosity* is a method, and was not meant to be the topic of the study. In practice, however, the strategies I employed daily to develop and maintain an animist ontological perspective became a *prerequisite* to nature connection. My EE programming was largely inconsequential. My strategy to develop an animist ontological perspective was powerful. In retrospect, it now seems obvious that strategies to view other-than-human life as conscious, communicative and connected persons would influence my nature connectedness. Clearly, becoming a person who sheds dualist notions to experience kinship and self-transcendence is going to experience nature connection. For some reason I did not equate animist ontological perspectives with nature connection. They appeared to be quite different. Perhaps it is because I have not yet seen strategies for altering ontological perspectives, such as decolonization and self-renunciation, as environmental education programming.

Therefore, the *process* of nature connection I experienced includes aspects of the research methodology, and is not exclusively the result of my prescribed EE program. On

the contrary, the connectedness that I experienced was almost exclusively the result of the

animist framework I employed to develop an animist ontological perspective. The

process of nature connection that I experienced occurred within two time scales; first, as

a large-scale general experience that developed during the 40-day phenomenon, and

second, as a small-scale specific experience that occurred as a daily process.

Large-scale process.

The large-scale process involved the following stages; (a) Apathy and

Resentment, (b) Mockery, Humility and Hope, (c) Working with language, (d) Discipline

and Progress.

Apathy and resentment.

This stage of the process is not represented in the results. During the first week,

my prescribed actions for (a) nature connection, and (b) developing an animist

ontological perspective felt meaningless. I executed my research plan, and my prescribed

EE program, but I believed that I was an intruder upon the landscape. The other-than-

human animals appeared to be mostly annoyed and scolding. I felt like a foreigner. I felt

overwhelmed. I felt uninspired to connect with nature because the division felt so deep,

and I felt unable to mend that divide. Even though I have more outdoor and

environmental education training than most humans in North America, I felt little kinship

with the other-than-human. I felt I did not have the skills or tools to overcome a division

that I had lived for my entire life. I felt that almost every other human I had ever met

lived this division too. I felt pessimistic, and reflected upon the incentives other humans

have presented to me over the course of my life, and whether even a single one was

meant to inspire nature connection. I felt resentment towards my culture and ancestors for

not teaching me how to connect with nature. I recognized my disconnection early in my

research, but it became very palpable during the initial stage of attempting to connect.

The act of actually confronting my isolation was overwhelming, deflating, and

frustrating. The *process* of nature connection that I experienced began as a period that is

best characterized by apathy and resentment.

      Mockery, Humility and Hope.

      I was able to begin moving forward by finding humor in the hypocrisy and absurdity of

human/nature dualism. I created dozens of sketches and comics mocking human arrogance, and

my own sense of self-importance relative to the other-than-human life. I began to see my

previous actions as those of an arrogant, violent brute. Specifically, the simple act of walking

through the woods and feeling as though I can thoughtlessly cut down any tree, step on any

flower, or chase any bird is both arrogant and violent. I questioned why any other-than-human

life would ever form a relationship with such a creature. Visualizing other-than-human life as

exercising the deliberate choice to not form a relationship with me is likely anthropomorphism,

but at this stage in the process the key point is by anthropomorphizing I was beginning to try to

understand an other-than-human perspective.

      Mockery cracked the shell on the dualist meta-narrative, and exposed the most obvious

falsehoods within the dualist meta-narrative. Therefore, the results begin with many pieces that

criticize and mock human/nature dualism. The pieces are focused on deconstructing

human/nature dualism by elucidating the value structure, hypocrisy, absurdity, and arrogance of

human/nature dualism. These representations of the *Mockery, Humility, Hope* stage within the

large-scale process of nature connection are meant to be accessible and biting; critical and

tender. That is a difficult balance to achieve, and for that reason the message is delivered with a

degree of softness. First, the most obvious falsehood I appreciated was how valuing human life above all other-than-human lives creates in-balance and destruction within the community of life. I express this human-supremacy as a dangerous instability in *Hierarchical*. The scale of the boxes is meant to represent the consideration, importance, and value I assign to the elements pictured on each box. The largest box represents humans, including both family and celebrity. The middle box represents sanitized versions of the other-than-human that provide direct benefits to other humans. Lastly, the smallest box represents all other aspects of life and reality.

Second, the notion of human exceptionality as a rationale for unconcerned domination of the other-than-human is largely uncontested. I reflected on white-supremacy, and other settler myths such as *Terra Nullius*, and noted how it was easy for me to believe in my own exceptionality when I chose the assessment rubric. Note that contesting human-supremacy is analogous to contesting white-supremacy, and I explore this as "decolonization" later in the discussion. During this early stage of the process, I found human-supremacy contestable and largely absurd. I tried to express the absurdity of this narrative with the gentle grandmotherly cross-stitch message in *Come by it honestly*. The message is "Thank God for making me better than most." It is meant to highlight the arrogance of human-supremacy and contest the myth that we can be at once humble and human-supremacists. The secondary aspect of *Come by it honestly* is that in order to contest these beliefs I had to allow myself some tenderness. The violence and sadness enabled by bigoted, arrogant, false narratives is overwhelming. I am not convinced I chose to incorporate human-supremacy into my ontological perspective. It was, as much inherited as it was constructed. The idea inhabited my ancestors at some point in our history, and it inhabited me too. This is captured within the cross-stitch that includes the statement "Sir John A was a bigot, and so am I." In order to even *begin* to shed that narrative, I had to acknowledge

that I "came by it honestly."

Finally, to cap the representation of the mockery stage, other glaring falsehoods were delivered with humor in *Mocking*. For example, the myth of the empty Land is challenged by a human impatiently asking the other-than-human where their homes are so that she can destroy them. The myth that we are consistent in our value-judgments regarding other-than-human life is challenged by a human rejecting an octopus from her circle of concern because she does not recognize the octopus in her. Also, the idea that we put effort into nature connection is challenged by the leisure activity menu that demonstrates how often activities like "jogging" are given the same consideration as "revealing the inherent unity of life." They are leisure activities I do if and when I have time. The truth of dualism as I experience it, and as expressed within the jokes in *Mocking* inspires sadness within me. The comics as a medium allowed me to move past the sadness. For those that experience the violence that I rationalized, it may seem callous to laugh at my mistake. I am not sure how finding humour will be perceived. All I can say is that humour worked better than self-flagellation. Self-tenderness worked better than judgment. Moving forward was my priority.

This kind of critical self-reflection eventually led to a sense of humility, and hope. By judging my beliefs, and the beliefs of my ancestors as incorrect, and allowing myself to laugh at my folly, I found a new sense of self-determination. I grew to believe that my previous disconnection was due to how I chose to act, and my future state of connection would be a consequence of how I choose to act. Thus, I gained hope that the act of wilderness living, promoting awareness, art making, and meditation would determine my level of connection. It was a sense of self-determination in relation to forming a relationship with other-than-human life.

Working with Language.

Shortly after finding a sense of optimism I began to notice how my language shaped my reality. A turning point in the phenomena was when the phrase "building a relationship with life" was revealed as an alternative to "nature connection." This phrase provided two ideas that encouraged optimism and powerfully aided connection. First, this phrase replaces the term "connection" with "building a relationship." This inspired a helpful analogy between building a relationship with another human, and building a relationship with the other-than-human, which could be broken into sub-steps and further analogized. Notably, Schultz's INS scale is founded upon a scale for measuring inter-personal human relationships (Schultz, 2002). I began to see jumping in the water as "playing together," walking quietly as "respecting each other," and recognizing the spark of life in our bodies as "finding common ground."

Second, the phrase "building a relationship with life" replaces "nature" with "life." I found this to neutralize the disconnection that is reinforced by the term "nature." By replacing the term "nature" with the more easily self-identifiable term "life," I felt I was usurping the power of the dualist meta-narrative, which is so solidly built into the meaning of "nature." It was very difficult to recognize "nature" within my body. "Life" is much more obvious. It was suddenly quite easy to see the life within my body extend beyond my body and form a relationship with the life outside of it. It became easy to see the life within a diving gannet as part of the life that exists within me. Therefore, I found that interpreting the idea of "connecting with nature" as "building a relationship with life" acted as an alternative framework, upon which to understand my actions in relation to a process of connection.

Working with language extended beyond this phrase. I became much more comfortable with the term "other-than-human life." I began to see "connection" as "unity," and "disconnection" as "isolation." However, these revelations were intellectual and constructivist. They merely opened my corporeal being to the possibility of other ways of being and knowing. Nevertheless, the shifting narrative of a reality through conscious word selection was an influential aspect of the phenomena that led to an increasingly optimistic and open practice, and eventually corporeal experience. *New at this* and *Recipe* are poems that represent and celebrate the hope an optimism of this transition. They highlight new possibilities and the power of words to circumvent the ubiquity of dualism.

Discipline, Optimism and Progress.

It appeared as though apathy, followed by mockery, humility, hope and working with language were prerequisites to progressing with a daily small-scale process. During this stage of the phenomenon, I paid especially careful attention to simply following the process I had designed with discipline and optimism. This led to progress. This stage lasted the final 30 days of the phenomena. Throughout it, my sense of unity was contingent, fleeting, and easily disrupted, yet every day was a wonderful adventure. It was a novel experience. It was a peaceful experience. The times when I retreated into my mind and felt indifference as I killed a clam were unfortunate; however, I felt more tenderness towards my inexperience. An intensifying daily process of "*revealing unity*" characterized the subsequent 30 days.

The progress within this stage allowed me to experience frequent though contingent moments of nature connection. There is a wide spectrum of experience

between human/nature dualism and unity, and for the sake of convenience I have broken my experience into three categories: Isolation, Kinship, and Unity. I generally live an *isolated* existence, and experienced this frequently during the phenomenon. I act within the world as if the other-than-human life is unable to participate in my extraordinary intelligence. I act out the story of my personal exceptionality. I tolerate the other lives, and generally value them according to how much they are like me. I am willing to thoughtlessly kill any life that does not have a brain. Nevertheless, I do appreciate the enjoyable views, tastes, sounds, and smells that come from other-than-human life. The majority of my experience during the phenomenon fell within this category.

Second, I experienced kinship. The term "kinship" is not my own. It is inspired by readings within *The Earth's Blanket* (Turner, 2012). Within the book, the author describes the "kincentric approach to nature" of the Rarámuri, Kwakwaka'wakw, Nlaka'pmx, Tlingit, Nuu-Chah-Nulth, and many other nations.

> We have relatives all around us: the rocks, the mountains, the trees, the
> edible roots, the animals and birds and fish… all are our kin, all are related
> to us and to each other. People are only one form of a large and diverse
> family of beings and entities" (Turner, 2012, p. 93).

I experienced what I would characterize as "kinship" daily for the final 30 days of the phenomenon. These were meaningful experiences characterized by a heightened awareness of my body acting with the world, a heightened awareness of the forces acting within the landscape, a feeling of kinship with the other-than-human life, a feeling of peace and truth throughout my body and mind, and the partial dissolution of the boundaries that represent my self-identity. I was however contingently aware of my

physical separation, my potential intrusiveness, the difficulty with which I could understand the communicative aspect of other-than-human life, the indifference I felt towards the plants I stepped upon, and the autonomy of other-than human life. This experience is similar to what White (2011) describes experiencing during his MAPIN sessions, including (a) a sense of reverence and humility, (b) personal insignificance and vulnerability, (c) appreciation of nonhuman otherness, and (d) perceptual acuity. These experiences could last for many hours, but required that I begin them with my morning routine of self-renunciation and meditation. Until this routine was complete my general attitude was selfish and indifferent.

The final category within the process of nature connection is "Unity." During the 40 days, I experienced unity for approximately 60 minutes. By "unity" I am referring to such dissolution of the dualist meta-narrative that the experience becomes self-transcendence. These occurred exclusively during the final moments of intense meditative sessions focused on the elemental forces within my body and the world. These meditative sessions incorporated long periods of deep relaxation and the re-definition of my physical form as a continuation of elemental forces, including air, fire, water, and earth. My body became the ground, and my breath the sky. It was exclusively during these moments that my concept of self as "Randy" became meaningless.

The progress within the Discipline, Optimism and Progress stage of the phenomenon was due to "the work" of nature connection. As I experienced connectedness, it required a daily *active* process. I characterize it as a *small-scale process* that reveals the inherent unity of life and creates the experience of kinship and unity.

Small-scale process.

During the final 30 days, experiencing fleeting moments of kinship and unity, was drawn from a process that included *self-renunciation*, *meditation* and *navigating the environment with heightened awareness*. This process was repeated multiple times daily and increased in intensity. Interestingly, only one of these approaches was part of my prescribed environmental education program. Meditation and self-renunciation were not approaches for nature connection, but rather approaches to developing an animist ontological perspective. My discipline to this process combined with the preparatory process of overcoming apathy and resentment through mockery, humility and working with language, led to increasing competence and progress.

Specifically, the daily process of nature connection which I experienced as powerful, proceeded as follows: (a) *renounce* arrogant, judgmental, and false aspects of my human identity, such as "I am better than birds because birds can't use language as well as I can," and "I need to be important to be loved." (b) *meditate* to quiet mental babble and improve bodily and sensory awareness, (c) *navigate* the environment focusing on heightening bodily and sensory awareness. I found this process of nature connection to *reveal* an inherent unity within all forms of life and the flow of matter and energy within the biosphere. Compared to casually noticing the daily habits of herons, hungrily harvesting clams to eat, busily collecting clay to make pottery, or daydreaming in the woods, this renunciation/meditation/awareness process felt infinitely more powerful.

The two gradually overlapping circles presented by Schultz did not adequately represent this small-scale process that I experienced. Rather, I found that without the above mentioned trio of actions, many activities that we would assume would *reveal*

unity (connect) with other-than-human life, were enacted with self-absorption, apathy and indifference. For example, the other environmental education approaches to nature connection yet to be mentioned are (1) Wilderness solitude, (2) Wilderness Living and (3) Art-making. I found solitude helped remove distractions, and wilderness living inspired some measure of heightened awareness; however, they appeared to be relatively inconsequential. I could easily be alone, and while relying upon the body of a clam for survival, feel completely indifferent about the other-than-human life. I could carve a bow drill spindle with indifference. I could locate water with indifference. I also experienced most art making as an especially human-centric activity. As I wrote poems, carved stone, made pottery, and wove ropes I found these activities had little impact on how I personally related to life. Mostly, as I made art I thought about what the piece would communicate to other humans. It is easy to assume that harvesting bark, processing it, and using it to weave rope would create an inherently intimate relationship with primal resources. The same could be said about coal mining, and that assumption is incorrect as I experienced it. I am however, limited by my experience with art-making as environmental education method. Others incorporate contemplative art-making within a process of "experiencing a tree as a sentient autonomous being," but I was not familiar with that process prior to the phenomenon (Flowers, Lipsett & Barrett, 2014, p.111). Furthermore, *art-based self-renunciation* was a powerful process for developing an openness to porosity and an animist ontological perspective, but that form of art-making was not part of my EE program. Thus, wilderness solitude, wilderness living and art-making were frequently enacted while maintaining a sense of self-absorption, apathy and indifference, and appeared to be much less powerful than the self-

renunciation/meditation/awareness process mentioned above.

Accordingly, I do not identify with gradually overlapping circles representing "nature" and "self," as a fully accurate representation of the *process* of nature connection. Rather, as I experienced the phenomena, it appeared as though unity was a pre-existing condition that was revealed through the actions that directly altered my mental relationship with the world. For example, working with my hands to feel and get to know a tree was inconsequential if within my mental environment I believed the tree was inferior, disconnected, and non-communicative, whereas if I acted upon my mental environment to *remove* the belief that the tree is inferior, disconnected, and non-communicative, then the inherent unity between the tree and I was *revealed* whether I touched it or not. "Humans have constructed artificial barriers that separate us from nature, rather than as seeing ourselves existing in the processes of the natural world" (Sowards, 2006, p.48). Therefore, though the process of nature connection may be viewed as "building a relationship with life," there appears to also be an element of "revealing pre-existing unity." As I experience the phenomenon, elements of a *pre-existing unity* were revealed as false-elements of the self were discarded.

The unity that I experienced appears to be accurately and eloquently described by researchers within the field of eco-psychology and transpersonal psychology. They view children as possessing an inherent relatedness to other-than-human life that is clouded through socialization and development of emotional autonomy (Liefländer et al., 2013). I was not familiar with either of these fields until very late in the process of creating this thesis. It was shocking to read how the writing within these fields so accurately mirrored my direct experience with the phenomenon of "nature connection." For example, self-

transcendence "refers to states of consciousness and stages of development in which the sense of self is expanded beyond the ordinary boundaries, identifications, and self-images of the individual personality and reflects a fundamental connection, harmony, or unity with others and the world" (Caplan, Hartelius, & Rardin, 2003; Davis, 2003; Friedman, 1983; Walsh & Vaughan, 1993, as cited in Davis, 2011, p.138). The key here is the *fundamental unity*.

This view is corroborated within the most recent assessment of EE program participant INS scores. According to the results, the group of 9-10 year olds who had not participated in the EE program had higher INS scores than the 11-13 year old students who had (Liefländer et al., 2013). In a different study, researchers showed that children between the ages of 10 and 11 are as connected with nature as environmental activists (Bruni & Schultz, 2010). These results are counter-intuitive in relation to conventional educational theory, where we assume age and training correlate to higher test scores. Furthermore, eco-psychologists also suggest that the focus on "relationships" is due to our lack of appropriate terminology for discussing non-duality (Davis, 2011).

Within the results, the process of (a) *renouncing* arrogant, judgmental, and false aspects of my human identity, (b) *meditating* to quiet mental babble and improve bodily and sensory awareness, and (c) *navigating* the environment focusing on heightening bodily and sensory awareness, is broadly captured in *The Reveal*. It is expressed with greater specificity in *Shelter*, *Self-Renunciation*, *Decolonization*, *Awareness*, *Dreaming I + II, Meeting the tide where it's at, Endless + Raspberries and Clams* and *Unity*.

The Reveal is a straightforward comparison between the self and nature connecting versus shedding a false dualist meta-narrative, as divergent process theories.

In one representation of the process, "the self" and "nature" join together to form "connection." The other representation of the process shows that unity was inherent all along, but could not be experienced given it is filtered through the dualist meta-narrative. The darkness in the painting represents human/nature dualism, and the process represents the unity of life shedding human/nature dualism. I interpret it as both a personal and collective process.

Self-Renunciation is an actual example of art-based self-renunciation from the phenomenon. It is meant to elucidate how I "*renounce* arrogant, judgmental, and false aspects of my human identity." Within this piece I draw how my desire to be viewed by others as like-able and important acts as chains and blindfolds that prevent me experiencing the unity of the world. Within other examples I drew how I believe I am better than other-than-human lives. In my case, my personal pathology also happens to be similar to the pathology of human/nature dualism, thus I spent about an hour each day renouncing arrogant beliefs and narratives around being exceptional. By drawing these beliefs as chains, I renounce them. By visualizing their impact, I release them.

Shelter/Isolation is a different representation of the same idea. It represents how I use false narratives to shelter myself from potentially difficult truths, and experience isolation as a result. I experience it as a trade-off. By living in isolation, I don't have to contest the myth of human-exceptionality that I enjoy so much. I felt covering my head in a cast of newsprint, and photographing a nude walk in the snow at sunrise created an evocative representation of the stakes at play. The cast of newsprint is the construction of false narratives that prevent me from experiencing unity. The cast is also the only piece of clothing I am wearing, and thus rather beneficial. Please also note that the pieces

representing the *Mockery, Humility, and Hope* stage, including *Hierarchical, Come by it honestly,* and *Mocking*, are also examples of art-based self-renunciation. I elaborate more upon *art-based self-renunciation* as process later in the discussion.

      Decolonization represents a different form of self-renunciation. It is a participatory sculpture that asks the participant to discard false ideas that exist within their body. It is more literal than art-based, and more communal than personal. It's an idea for a form of collective ritualized rejection of false narratives. The term "decolonization" may however be incorrectly co-opted in this context. "If we approach decolonization through Cartesian, self-, logo, and anthropo-centric forms of agency, we may unintentionally enact precisely the dominance we seek to address (Gastambide-Fernández, 2012, as cited in de Oliveira Andreotti, Stein, Ahenakew, & Hunt, 2015, p.35). That is problematic because I remain anthropocentric, and this research project has highlighted how I can do many questionable acts unintentionally. Furthermore, "too often decolonization becomes reduced to efforts to 'decolonize the mind' - those of us in the academy are often particularly guilty of this – and fails to recognize the very real, very physical effects that colonization has on peoples (Sium, Desai & Ritskes, 2012). Therefore, there is clearly a difference between my experience with decolonization as a member of the settler community, and the experience of First Nations, Inuit and Metis. This difference remains ongoing. The settler/colonized relationship is not merely a historic situation.

      Nevertheless, given these *never-to-be-neglected* caveats, I have chosen to call this piece *decolonization.* I would argue that decolonization is the greater process of healing "the social, cultural, and spiritual ravages of colonials history" (Gastambide-Fernández,

2012, as cited in de Oliveira Andreotti et al, 2015, p.36). As much as decolonization

refers to displacing a political context, it includes a psychological context as well

(Battiste, 2000). It is generally through the the rejection of imposed and internalized false

identities and beliefs, that one becomes individually, culturally, and politically

empowered to re-imagine new possibilities (Proulx, 2003). "This decolonization project

will require Indigenous People and our non-Indigenous allies to continue to challenge the

hegemonic structures which have justified and advocated our ongoing oppression and

colonization" (Wilson, 2006, p. 78). As I experienced the phenomenon of nature

connection, what justifies ongoing oppression and colonization are the false narratives

that exist within my body and rejecting them empowers me to imagine new possibilities.

Notably, shedding the narratives that permit human-supremacy-based violence occurs

congruently with the narratives that permit white-human-supremacy-based violence, and

is part of the decolonization process. Finally, without completely conflating the

settler/colonized experience, the dualist meta-narrative is not an experience I enjoy. It is

isolating and debilitating. "We in Europe too are being decolonized… that is to say that

the settler which is in every one of us is being savagely rooted out (Weitekamp & Kerner,

2002, p. 35). I believe that learning to shed it can contribute to a collective process of

decolonization. Permitting my experience to fall within the category may not necessarily

lessen it. It may be a valuable form of participation within the community of humans

attempting to experience the world as members of the interconnected community of life.

Nevertheless, I would like to reiterate that labeling my artwork *Decolonization* and

justifying that choice may be unintentionally enacting the dominance I seek to address.

Perhaps a better term is "unlearning," or "deconstruction." For example, it is argued that

some post-modern thinking is concerned with the *deconstruction* of metanarratives that create violence in the world (Payne, 1998). For the remainder of this research paper I refer to the process of shedding human/nature dualism as deconstruction.

After (a) *renouncing* arrogant, judgmental, and false aspects of my human identity, I would (b) *meditate* to quiet mental babble and improve bodily and sensory awareness. The meditative aspect of the process of nature connection that I experienced as powerful is represented in *Awareness*. It is a participatory sculpture that is meant to provide the experience of heightened awareness, along with the challenges associated with that experience. The idea is that by isolating the sense of sight and hearing while standing in a public place, attention will be brought into the body. The participant will feel their body standing in place, and hopefully experience a heightened bodily awareness. The participant will also hear a soundtrack that is meant to represent the peace of mindfulness being interrupted by thought. This is represented by a river-side and beach-side soundscape with intermittent mosquito buzzing. The third sensory-depravation ceramic does not contain an audio track. It is meant for the participants to experience an analogous audio track within their own mind, and perhaps experience it mindfully.

Lastly, after (a) *renouncing* arrogant, judgmental, and false aspects of my human identity, and (b) *meditating* to quiet mental babble and improve bodily and sensory awareness, I would (c) *navigate* the environment focusing on heightening bodily and sensory awareness. The navigation experience is represented by the four poems *Dreaming I*, *Dreaming II*, *Raspberries and Clams*, *Endless*, the film *Meeting the tide where it's at*, and the cross-stitch *Unity*. These pieces are less prescriptive than the earlier

representations of the small-scale process. Experiencing the unity of life, and living as an interconnected member within it remains mysterious. Accordingly, these pieces lack cohesion, and that is deliberate. They are meant to be flickers of new possibilities. That is how I experienced it. I experienced flickers of the community of life as more compelling than my stream of verbal consciousness. I experienced flickers of new traditions, expectations, and rituals. I experienced flickers of unity; flickers of the depth of humility required to meet an other-than-human where it's at. It is at times profoundly sad how distant those flickers are, though remains profoundly invigorating how possible they are.

In summary, the process of nature connection that I experienced as powerful occurred on two time scales. First, in order to feel comfortable doing the daily work of revelation, I first had to confront my isolation and mock the most glaringly false aspects of my ontological perspective. Through that process I found humility, new words to describe my shifting ontological perspective, and most importantly a sense of self-determination. Second, the daily work of revelation required that I contest the false aspects of my self-image, including those that found the dualist/human-supremacist ontological perspective. What remained post-renunciation was the experience of living within an interconnected community of life. I would also meditate to reinforce the renunciation process, and then mindfully navigate the world while focusing on heightening my bodily awareness. Navigating the world while experiencing kinship and unity commonly revealed new possibilities for existence, though this way of being of knowing remains largely mysterious.

Questions and Suggestions for Environmental Educators

A purpose of this research was to help refine approaches to environmental education programming for nature connection. Notably, this research is limited by the methodology, such that these results are but a helpful starting point for continued critical analysis and theorizing. Accordingly, these questions and suggestions are more topics of conversation than cohesive arguments.

I have commonly worked with a general belief that time in wilderness areas and sensory work "connects" students; understanding the food web, or ecological cycles, or the name of a particular tree is better than not knowing it. In my experience, it is common to implement programs believing that they will likely create some movement towards something that is better than the current circumstance. If we are trying to move towards "connectedness" it might be helpful to be more deliberate in that objective. Given the quantitative results underpinning this research, it might be helpful to deepen our appreciation of where we are actually attempting to lead our students.

If we choose to expand programming outcomes to include "nature connection," we should be able to describe that outcome. What is "connectedness?" According to the authors of *Connecting with Nature: A Naturalist's Perspective* connectedness is eco-literacy (Stebbins, 2012). According to Schultz (2002) it is when self and nature join together. As I experienced connectedness, it is experiencing the kinship within an animist ontological perspective or the unity of self-transcendence. Connectedness is deconstructing false aspects of the participant self-image, so that the inherent kinship and unity of life may be revealed and experienced. These questions have important

consequences for environmental educators. For example, if connectedness is as the results represent, what are the implications for environmental education programming?

Must our programs attempt to alter the students' ontological perspective? Are we attempting to create a community of animists? Are we attempting to guide students towards self-transcendence? Are we facilitating the deconstruction of prevailing meta-narratives? Are we working to help program participants experience the inherent unity of life? These questions will hopefully inspire reflection and critical analysis of programming methods and the underlying beliefs regarding the process of revealing the unity of life. Please also consider the most effective programming methods I experienced for revealing the unity of life. They are (i) re-naming and un-naming the world, and (ii) art-based self-renunciation. I would like to elaborate upon both these processes in order to continue the process of refining environmental education programming methods.

Re-naming and un-naming the world.

The re-naming that I described and characterized as "working with language," was inspired by the work of post-structural feminists. Post-structural theorists reject stable meanings of self, to disrupt the dominant and secure sense of meaning associated with understanding language/history/identity, and generally view prevailing meta-narratives with credulity (Barrett, 2005, Williams, 2005). Rejecting stable meanings can reveal how language and knowledge are not closed (St. Pierre, 2000). Accordingly, language choice can become narrative as world making (Bruner, 2004). For example, some suggest that "naming" is a process whereby assigned names become semiotic signs of human/nature relations (Bang & Marin, 2015). They suggest that naming is a fundamental act of learning and building a relationship with land (Bang & Marin, 2015).

For example, the educators described by Bang & Marin (2015) employ Indigenous Land names in student-teacher discourse to resist settler-colonial relations, such as ideological systems that facilitate appropriation of Indigenous land. Some also choose to capitalize the word "Land" to express that they experience it as a place characterized by spirit and interconnected relationships (Tuck, McKenzie & McCoy, 2014). Others prefer the term place-based education over community-based education because the "place" is non-anthropocentric (Tuck, McKenzie & McCoy, 2014).

During the phenomenon I experienced the word "nature" as problematic, and was inspired to re-name it.

> 'nature' does not have parts and (…) the use of language which suggests a 'reconnection', or highlights the human place in a series of relationships with the environment, may do little to attain its goals of tackling the 'crisis of perception', in that it may enforce preconceived notions of nature and the environment as distinct from and distant to humanity (Clarke & McPhie, 2014, p. 208).

I experienced the words "connection" and "nature" as enforcing dualist narratives. Consequently, I chose to rename "nature connection" as "building a relationship with life," and eventually as "revealing the inherent unity of life."

Furthermore, "time in nature" is commonly believed to be an important aspect of the "nature connection process." It was, for example, the first choice I made when designing my custom environmental education program. Perhaps we can rename it in light of the research results? The problem with focusing on "time in nature," is that mentioning the word "nature" reinforces the ontological

perspective we are attempting to deconstruct. Nevertheless, I experience a greater liberation and peace when I go to the forests, beaches, and mountains. Thus, I experience a division and characterizing that division as "nature" and "not nature" is problematic. The solution may be re-naming the division. As I experience the world, human/nature dualism is false narratives preventing me from experiencing the unity of life. Deconstructing dualism reveals the unity of life. Deconstructing dualism is easier when it is not reinforced and enforced. I find the ways of being and physical structures of humans experiencing dualism enforce the dualist meta-narrative. Experiencing forests, mountains and beaches does not enforce the dualist meta-narrative. Therefore, perhaps "time *in nature*" should be renamed as "time *in space where fewer signs and symbols reinforce false narratives*." The new name reminds us that the unity of life remains within all landscapes. The distinction becomes the *dualist/other-than-dualist ontological perspectives within the landscape* instead of the *human/other-than-human* false narrative.

This process is also known as "creative un-naming" (Clarke & McPhie, 2014; Gough, 2008). With regards to identifying other-than-human life Noel Gough (2008) suggests that:

> We could start with some of the common names of animals and plants
> that signify their instrumental value to us rather than their kinship.
> There is a vast difference between naming a bird of the Bass Strait
> islands an 'ocean going petrel' or a 'short-tailed shearwater' and
> naming it a 'mutton bird'. Only one of these names identifies a living
> thing in terms of its worth to us as dead meat. Names are not inherent

in nature; they are an imposition of human minds. It is as if we wish to

own the earth by naming it (p.78).

Clarke & McPhie, provide an example of how naming within a more

relational and animist ontological perspective could operate:

In contrast to this is to regard the animal as a 'going on' (Ingold, 2011,

p. 174). In this respect, the animal is considered a manifestation of its

processes of continually coming into existence and acting. This is a

view commensurate with that of process metaphysics. For example, in

this way a wolf 'is not fundamentally a characteristic or a certain

number of characteristics; it is "wolfing"' and is thus caught up in its

relations with the world (Deleuze & Guattari, 2004, p. 265, as cited in

Clarke & McPhie, 2014, p. 203).

They describe this process as "creative verbing" and suggest that it

highlights the movement within being. This movement is a form of

continuous becoming that is difficult to perceive for humans that experience

a dualist world. We are accustomed to giving nouns and experiencing the

world as static (Clarke & McPhie, 2014).

Animists, then, see and act on a plane of immanent materiality, not

believing about the world (i.e. attributing life to 'objects' that are

considered inanimate and 'other'), but becoming of the world. The most

fundamental consequence of existing in a reality that is forever becoming,

in the animistic sense, is the response of 'astonishment'. For Ingold

(2011), astonishment is the sense of awe that comes from being forever on

the brink of a world becoming (Clarke & McPhie, 2014).

Accordingly, part of deconstruction may be resisting the urge to name, or for those names you choose to give, give them within a particular context and for a particular moment. In summary, the act of re-naming, un-naming, and creative verbing contests the stable meaning of prevailing meta-narratives, and may be an effective method of deconstructing human/nature dualism to reveal the inherent unity of life.

Art-based self-renunciation

My choice to incorporate art-based self-renunciation was a methodological experiment. I read that "self-renunciation casts out all preferential love just as it casts out all self-love" (Kierkegaard, 1962, p. 67). I interpreted "preferential love" and "self-love" to exist within my body as human-supremacy, as in the hierarchical value I accord to human and other-than-human lives. Thus self-renunciation was initially inspired by its potential to cast out hierarchical values. Some suggest that, "dismantling a dualism based on difference requires the reconstruction of relationship and identity in terms of a non-hierarchical concept of difference" (Plumwood 2002, as cited in Clarke & McPhie, 2014, p.206). As I experienced the phenomenon, the world exists as a non-hierarchical relationship and reconstruction is superfluous. The experience that remains after renunciation is kinship and unity.

As I reflect further on how I chose art-based self-renunciation as a methodological tool, it appears I was also influenced by my work with the Women's Network of PEI. Through the Women's Network I received training to

deliver "Healthy Masculinity" workshops. I now realize that the primary activity within the workshops was a form of collective *art-based self-renunciation.* The activity is called the "Man Box." It begins with young men listing stereotypical signs of masculinity. I draw representations of their examples on flip-chart paper. Generally, the drawings include representations of promiscuity, heterosexuality, physical strength, alcohol consumption, being good at sports, and avoiding displays of excessive emotion, among many others. These representations help to facilitate a discussion around pressures to fit within this box of stereotypes, and consequences for people that do not comply with these gender norms. Next, the participants are invited to reject these gender norms by physically tearing down the paper. Rejecting the norms is an act of judging the stereotypes as false. For example, the belief that "I need to be good at sports to be a real man" is false, because there are many examples of admirable men who are not good a sports. Rejecting that belief and others can be a powerful activity that often leaves the participants experiencing a profound sense of liberation. Thus, the "man box" is *art-based self-renunciation* for discarding false gender norms to reveal the freedom of choice. Notably, this activity is often followed by a reconstruction exercise, where we brainstorm ideas for personal expectations of masculinity such as honesty, courage, compassion, and sacrifice, among many others.

With regards to discarding dualism to reveal the unity of life, *art-based self-renunciation* became my primary strategy for shedding human/nature dualism. It developed into a 3-step process meant to "cast out preferential love." First, I critically evaluated my self-image. I reflected on what I believe to be true.

I reflected on my identity, and the stories I tell myself about myself. Am I athletic? Am I better than a maple tree? Am I separate from a maple tree? Am I worthy of love? Do I want others to perceive me a certain way? Do I believe I need to be a certain way to be valuable? Do I believe others need to be a certain way to be valuable? I found it helped to identify behavior, then reveal the belief inspiring that behavior, then question whether the belief was true.

Second, I identified false narratives and drew them as chains and blindfolds preventing me from experiencing the world. See *Self-renunciation* in the results for an example. This step is problematic because judging a narrative as false must be grounded on evidence, but the evidence to contest prevailing meta-narratives is difficult to experience when I live within that meta-narrative. The evidence to contest fundamental aspects of reality is therefore more personal and anecdotal than empirical. For example, the most obvious false narrative, as I experienced the phenomenon, was human-supremacy. I cannot withstand the cold, or swim, or fly, or hunt, or demonstrate industriousness, or demonstrate patience, or demonstrate sacrifice as well as innumerable other-than-human lives. The evidence is glaring. Mocking the absurdity of using human-mediated terms to assess objective value came easily. Therefore, the gifts of the other-than-human *contest human-supremacy,* and ground the act of renouncing that aspect of my self-image.

However, as I experienced renunciation, it is not just human-supremacy that is false and prevents me from experiencing the unity of life. I have other personal beliefs besides human-supremacy that prevent me from experiencing the unity of life. Accordingly, I mocked how I shield my self-image from contestation, in order to protect

my prevailing narratives. I mocked my desire to have financial security, to be seen as important, to be loved, and other such desires. I experienced these desires as underlying beliefs that I need to be certain things, or have certain things, relative to others, before I can consider myself acceptable and worthy of love. In order to judge these beliefs as false I used anecdotes that I had heard through my life about wealthy and accomplished individuals who found that their wealth and accomplishments did not bring them peace. For example, within *self-renunciation* are representations of my belief that I should be more valuable than others. I can be quite competitive, and within me is a belief that I need to be "better than" other humans in order to be worthy of acceptance and love. However, anecdotally it appears that it is not by being "better than" that one becomes filled with acceptance and love. Therefore, the stories of accomplished people experiencing something other than acceptance and love *contest the myth that I need to accomplish certain actions to be worthy of love,* and ground my choice to renounce that aspect of my self-image.

Finally, addressing the falsehood of "separateness" was more challenging than human-supremacy and other false personal narratives. As I experienced it, the falsehood of "separateness" is less obvious than false human-supremacy and whether I need to be "better than." Thus, in order to judge separateness as false, I chose to ground that judgment in visions of ecological cycles and biological processes. These cycles and processes are difficult to perceive. I have taken undergraduate-level classes in biology, ecology, anatomy and human physiology and trusted that my professors and textbooks accurately described how energy and elements cycle through lives within the biosphere.

Therefore, the physical unity within the flow of energy and elements *contests the myth of separation*, and grounds the act of renouncing that aspect of my self-image.

Third, I laughed at myself for believing those narratives for so long. I found humor in my stupidity. Ultimately *art-based self-renunciation* was liberating, but the process of contesting fundamental aspects of reality was difficult. I found humour was an especially helpful emotion to exercise when completing acts of self-renunciation. It lightened the experience of judging previous narratives as false. There are other options. We could choose to be angry at the false narratives within our bodies. We could choose to mourn living for so long with false narratives. We could choose to tenderly love our false narratives, and let them go. I use the verb "shed" to describe the process of removing human/nature dualism from my ontological perspective. However, at times it feels more like scratching at a concrete wall, and the appropriate verb is "chip away." Though, perhaps others might find it more appropriate to "cry away," or "hug away" the dualist isolation.

In summary, if environmental educators wish for their participants to experience the unity of life, the most effective process may include actively deconstructing human/nature dualism. In my experience, two effective approaches include (i) re-naming and un-naming the world, and (ii) art-based self-renunciation. Both these approaches require the participant to contest the prevailing meta-narrative. As that meta-narrative is removed, the inherent unity of life may be revealed.

Questions and Suggestions for Future Research

I made one overriding miscalculation while conducting this research that may help re-direct future researchers implementing an animist framework. I assumed I could

choose an ontological perspective as a researcher-participant completing a phenomenological research project. As it turned out, becoming a person that views other-than-human life as conscious, communicative and connected persons instead of lifeless resources to exploit takes more than 40 days of conscious effort on an "uninhabited" island. I am not precisely sure what it would take for me to more often than not experience an animist ontological perspective. Prior to the data collection, I was confident that I could engage the other-than human as research participants. I was confident I could experience the world as a communicative, conscious and interconnected community of life. During the data collection phase, those experiences were fleeting, and to suggest that I could experience the world as an animist was a gross miscalculation.

Therefore, achieving an openness to porosity and skill in a range of methods to communicate with other-than-human life should not be undertaken lightly. In my case, I would estimate that it might take approximately 10 years of conscious effort to be able to consistently experience the world as an animist, and research through an animist ontological perspective. I would suggest that researchers considering the animist framework should not underestimate the weight and depth of a pre-existing non-animist ontological perspective. It is possible that using the animist framework may only be possible if the researcher is already an animist.

Conclusion

Human members of western civilization are beginning to recognize and appreciate our reliance on other-than-human lives for our survival. At the same time, we continue to enact a long tradition of indifferent exploitation and destruction of the biosphere. "Our present environmental predicament not only provides an exciting opportunity to re-focus

education on the issue of human relationship to nature, but also requires the exploration

of this issue for its long-term resolution" (Bonnett, 2007, p. 707). Environmental

educators have taken a role in improving the relationship between humans and other than

humans in order to address these challenges. Guiding this work are many years of

academic research such as Wesley Schultz's helpful though preliminary description of

the *nature* of nature connection (Schultz, 2002). Nevertheless the *process* of establishing

nature connection within the dominant western Eurocentric cultural paradigm remains

nebulous. Efforts to promote nature connection have had questionable results. Therefore,

this study was implemented to raise important questions regarding the nature and process

of nature connection.

Two key questions that my results are intended to invoke are: (1) How should we

characterize "nature connection"? Is it perhaps kinship, animism, unity, or self-

transcendence? (2) How can the process of "nature connection" be most effectively

characterized? Is it perhaps deconstructing dualist meta-narratives, reconstructing animist

ontological perspectives, or revealing the inherent unity of life? These and other

questions may emerge from this study's results, and will hopefully aid the development

of effective environmental education.

References

Abram, D. (1996). *The spell of the sensuous: Perception and language in a more-than-human world*. New York: Vintage Books.

Abram, D. (2010). *Becoming Animal: An Earthly Cosmology*. New York: Vintage Books.

Agriculture and Agri-food Canada. (2009). *Certified Organic Production Statistics for 2009*. Retrieved from the Agriculture and Agri-food Canada website.

Bang, M., & Marin, A. (2015). Nature-culture Constructs in Science Learning: Human/non-human Agency and Intentionality. Journal of Research in Science Teaching, 52(4), 530-544

Barone, T. & Eisner, E. (2011). *Arts Based Research*. Los Angeles: Sage Publications.

Barrett, M.J. (2005). Making (some) sense of feminist poststructuralism in environmental education research and practice. *Canadian Journal of Environmental Education*, *10*, 79-93.

Barrett, M.J. (2009). *Beyond Human-Nature-Spirit Boundaries: Research with Animate Earth.* Hypertext dissertation available at http://www.porosity.ca/

Barrett, M.J. (2011). Doing Animist Research in Academia: A Methodological Framework. *Canadian Journal of Environmental Education*, *16,* 123-141.

Battiste, M. (Ed.) (2000) *Reclaiming Indigenous Voice and Vision*. Vancouver: UBC Press.

Berry, T., & Tucker, M. (2006). *Evening thoughts: Reflecting on earth as a sacred community.* San Francisco: Sierra Club Books.

Bonnett, M. (2007). Environmental education and the issue of nature. *Journal of Curriculum Studies*, 39(6), 707-721. doi:10.1080/00220270701447149.

Boydell, K. M., Gladstone, B. M., Volpe, T., Allemang, B., & Stasiulis, E. (2012). The Production and Dissemination of Knowledge: A Scoping Review of Arts-Based Health Research. *Forum: Qualitative Social Research*, *13*(1), 1-30.

Brown Jr., T. (1993). *Grandfather: A Native Amercian's Lifelong Search for Truth and Harmony in Nature*. New York, NY: Berkley Books.

Brown Jr., T. & Morgan, B. (1983). *Tom Brown's Field Guide to Nature Observation and Tracking*. New York, NY: Berkley Books.

Brown Jr., T. & Morgan, B. (1983b). *Tom Brown's Field Guide to Wilderness Survival.* New York, NY: Berkley Books.

Brown Jr., T. & Morgan, B. (1984). *Tom Brown's Field Guide to Living with the Earth.* New York, NY: Berkley Books.

Brügger, A., Kaiser, F. G., & Roczen, N. (2011). One for all? Connectedness to nature, inclusion of nature, environmental identity, and implicit association with nature. *European Psychologist*, *16*(4), 324-333. doi:10.1027/1016-9040/a000032

Bruner, J. (2004). Life as Narrative. *Social Research*, *71*(3), 691-710.

Bruni, C.M. & Schultz, P.W. (2010). Implicit beliefs about self and nature: Evidence from an IAT game. *Journal of Environmental Psychology, 30*(1), 95-102.

Campen, R. (2012). Connecting children and young people with nature. *Biologist*, *59*(1), 30-34.

Carr, D. (2004). Moral Values and the Arts in Environmental Education: Towards an
    Ethics of Aesthetic Appreciation. *Journal Of Philosophy Of Education*, *38*(2),
    221-239. doi:10.1111/j.0309-8249.2004.00377.x

Castellano, M., Luca, A., & Sorrentino, M. (2011). The Interface of Environmental and
    Humane Education as an Emerging and Relevant Dialogue: A Point of View
    from Brazil. *Canadian Journal of Environmental Education*, *16*, 93-105.

Cerbone, D. R. (2006). *Understanding Phenomenology*. Stocksfield, UK: Acumen
    Publishing Limited.

Cervinka, R., Röderer, K., & Hefler, E. (2012). Are nature lovers happy? On various
    indicators of well-being and connectedness with nature. *Journal Of Health
    Psychology*, *17*(3), 379-388.

Chandler, D., & Munday, R. (2011). *Strategic Anti-Essentialism*. Oxford University
    Press. *Oxford Reference*. Web. 26 Dec. 2014.

Cheng, J. & Monroe, M. C. (2012). Connection to Nature: Children's Affective Attitude
    Toward Nature. *Environment and Behavior 44* (1): 31-49

Chilisa, B. (2012). *Indigenous Research Methodologies*. London, UK: Sage Publications.

Coates, P. (1998). *Nature.* Los Angeles, CA: University of California Press.

Cohen, M. J. (1989). *A field guide to connecting with nature*. Eugene, Or. : World Peace
    University.

Cole, A. (2007). Expanding the Field: Revisiting Environmental Education Principles
    Through Multidisciplinary Frameworks. *Journal of Environmental Education*,
    38(2), 35-45.

Clarke, D.A.G., & McPhie, J., (2014). Becoming animate in education: immanent

materiality and outdoor learning for sustainability. *Journal of Adventure

Education & Outdoor Learning, 14,* 3, 198-216.

Creswell, J. (2007). *Qualitative Inquiry and Research Design: Choosing Among Five

Approaches* (3rd Ed.). London, UK: Sage.

Davies, B. (2000). *(In)scribing body/landscape relations*. New York: AltaMira Press.

Davis, J.V. (2011). Ecopsychology, Transpersonal Psychology, and Nonduality.

International Journal of Transpersonal Studies, 30(1-2): 137-147.

De Oliveira Andreotti, V., Stein, S., Ahenakew, C., Hunt, D., (2015) Mapping

Interpretations of Decolonization in the Context of Higher Education.

Decolonization: *Indegeneity, Education & Society*. 4(1), pp.25-40.

Denzin, N. K., & Lincoln, Y. S. (2003). *Collecting and Interpreting Qualitative

Materials* (2nd ed.). London, UK: Sage.

Duffy, S., & Verges, M. (2010). Forces of Nature Affect Implicit Connections with

Nature. *Environment & Behavior, 42*(6), 723. doi:10.1177/0013916509338552

Dickinson, E. (2014) "Ecocultural Schizophrenia: Dialectical Environmental Discourse

and Practices." *Communication, Culture and Critique*. 7(4).

Egger, K. A. & Cervinka, R. (2008). *Adolescents´ Connectedness with Nature.* Presented

at 8th Biennial Conference on Environmental Psychology, Zürich, Switzerland,

September 6-9, 2009.

Erdogan, M. (2011). The Effects of Ecology-Based Summer Nature Education Program

on Primary School Students' Environmental Knowledge, Environmental Affect

and Responsible Environmental Behavior. *Educational Sciences: Theory and Practice*, *11*(4), 2233-2237.

Ernst, J., & Theimer, S. (2011). Evaluating the effects of environmental education programming on connectedness to nature. *Environmental Education Research*, *17*(5), 577-598. doi:10.1080/13504622.2011.565119

Fairbanks, S. (2010). Environmental Goodness and the Challenge of American Culture. *Ethics & The Environment*, *15*(2), 79-102.

Flowers, M., Lipsett, L., & Barrett, M.J. (2014). Animism, Creativity, and a Tree: Shifting into Nature Connection through Attention to Subtle Energies and Contemplative Art Practice, Canadian Journal of Environmental Education, 19, pp.111-126.

Francois, K. K. (2013). Beyond the Human-Nature Dualism: Towards a Concept of Nature as Part of the Life-World. *Phenomenology & The Human Positioning in the Cosmos*, 205-216. doi:10.1007/978-94-007-4801-9_12

Freiman, M. (2012). Canoeing as Context for Nature Connection; A Case Study. Available from: OAIster, Ipswich, MA. Accessed May 7, 2013.

Funke, G. (1987). *Phenomenology: Metaphysics or Method?* Athens, OH: Ohio University Press.

Gaard, G. (1993). *Ecofeminism: Women, Animals, Nature.* Philadelphia, PA: Temple University Press.

Gilbertson, K., Bates, T., McLaughlin, T., & Ewert, A. (2006). *Outdoor Education: Methods and Strategies.* Champaign, IL: Human Kinetics.

Goncalves, F. J., Pereira, R., Filho, L. W., & Azeiteiro, M. U. (2012). Contributions to
the UN Decade of Education for Sustainable Development. *Environmental
Education, Communication and Sustainability.* 33.

Gosling, E. & Williams, K. J. H. (2010). Connectedness to Nature, Place Attachment and
Conservation Behaviour: Testing Connectedness Theory Among Farmers.
Journal of Environmental Psychology, *30*, 298-304,
doi:10.1016/j.jenvp.2010.01.005

Gough, A. (1999). Recognizing Women in Environmental Education Pedagogy and
Research: Toward an Ecofeminist Poststructuralist Perspective. *Environmental
Education Research*, *5*(2), 143.

Gough, N. (2008). Ecology, Ecocriticism and Learning: How do places become
'pedagogical'? *Transnational Curriculum Inquiry*, 5(1), 71–86.

Greenwood, D. A. (2010). Nature, Empire, and Paradox in Environmental Education.
Canadian Journal of Environmental Education, *15,* 9-24.

Gruenewald, D. A. (2003). Foundations of Place: A Multidisciplinary Framework for
Place-Conscious Education. *American Educational Research Journal*, (3), 619.
doi:10.2307/3699447

Gruenewald, D. A. (2004). A Foucauldian Analysis of Environmental Education: Toward
the Socioecological Challenge of the Earth Charter. *Curriculum Inquiry*, 34(1),
71-107. doi:10.1111/j.1467-873X.2004.00281.x

Hall, M. (2011). *Plants as Persons: A Philosophical Botany.* State University of New
York Press.

Haluza-Delay, R. (2001). Nothing Here to Care About: Participant Constructions of
    Nature Following a 12-Day Wilderness Program. *Journal of Environmental
    Education*, *32*(4), 43.

Hamill, C., & Sinclair, H. H. (2010). Bracketing: Practical Considerations in Husserlian
    Phenomenological Research. *Nurse Researcher*, 17(2), 16-24.

Hanh, T. N. (2009). *The Blooming of a Lotus: Guided Meditation for Achieving the
    Miracle of Mindfulness*. Boston, MA: Beacon Press.

Hart, P., Barrett, M. J., Schnack, K., Dyment, J. E., Taylor, J., & Clarke, C. (2004).
    Reflections on the 7th Invitational Seminar on Research and Development in
    Health and Environmental Education: Anchorage, AK, October
    2003. *Environmental Education Research*, *10*(4), 563-574.
    doi:10.1080/1350462042000317029

Harvey, G. (2006). Animism: Respecting the Living World. New York, NY: Columbia
    University Press.

Hawken, P. (2007). *Blessed Unrest.* New York, NY: Penguin Group.

Hay, P. (2002). *Main Currents in Western Environmental Thought.* Sydney, Australia*:*
    UNSW Press.

Hefler & Cervinka. (2009). Connectedness with Nature Scales. Compiled for the Medical
    University of Vienna. Kinderspitalgasse, available at
    http://www.meduniwien.ac.at/umwelthygiene/p018_measures.pdf

Heimlich, J. E. (2010). Environmental Education Evaluation: Reinterpreting Education as
    a Strategy for Meeting Mission. *Evaluation and Program Planning*, 33(2), 180-
    185.

Hill, A. (2012). Developing Approaches to Outdoor Education that Promote

    Sustainability Education. *Australian Journal of Outdoor Education*, *16*(1), 19-

    31.

Hinds, J., & Sparks, P. (2008). Engaging with the Natural Environment: The Role of

    Affective Connection and Identity. *Journal of Environmental Psychology*, *28,*

    109-120. doi:10.1016/j.jenvp.2007.11.001

Hornborg, A. (2006). Animism, Fetishism, and Objectivism as Strategies for Knowing

    (or not knowing) the World. *Ethnos: Journal of Anthropology*, *71*(1), 21-32.

    doi:10.1080/00141840600603129

Howell, A. J., Dopko, R. L., Passmore, H., Buro, K. (2011). Nature Connectedness:

    Associations with Well-being and Mindfulness. *Personality and Individual*

    Differences, *51*, 166-171. doi:10.1016/j.paid.2011.03.037

Jickling, B., & Wals, A. J. (2008). Globalization and Environmental Education: Looking

    Beyond Sustainable Development. *Journal of Curriculum Studies*, *40*(1), 1-21.

    doi:10.1080/00220270701684667

Johnston, B. (1976). *Ojibway Heritage*. Toronto, ON: McClelland & Stewart.

Kapyrka, J. J., & Dockstator, M. M. (2012). Indigenous Knowledges and Western

    Knowledges in Environmental Education: Acknowledging the Tensions for the

    Benefits of a 'Two-Worlds' Approach. *Canadian Journal of Environmental*

    Education, 17, 97-112.

Kierkegaard, S. (1962). *Works of Love: Some Christian Reflections in the Form of*

    Discourses. New York, NY: Harper and Row.

Klassen, M. (2010). *Connectedness to Nature: Comparing Rural and Urban Youths'*
Relationships with Nature (Doctoral Dissertation). Retrieved from
https://dspace.royalroads.ca/docs/bitstream/handle/10170/150/Klassen,%20Mike
.pdf?sequence=1

Knapp, C, & Smith, T. (2005). *Exploring the Power of Solo, Silence, and Solitude.*
Boulder, CO: Association of Experiential Education.

Knowles, G., Cole, A. (2008). *Handbook of the Arts in Qualitative Research.* Thousand
Oak, CA: Sage Publications.

Korteweg, L. L., & Russell, C. C. (2012). Decolonizing + Indigenizing = Moving
Environmental Education Towards Reconciliation. *Canadian Journal of*
Environmental Education, 175-14.

Kuhl, G. J. (2011). Representing Animal Others in Education Research. *Canadian*
Journal of Environmental Education, *16*106-122.

Laenui, Poka (Hayden F. Burgess) (2000). *Processes of Decolonization.* In Battiste,
Marie (ed.), *Reclaiming Indigenous Voice and Vision.* Vancouver, BC: UBC
Press. 150-160.

Laenui, Poka (Hayden F. Burgess), personal communication, December 27th, 2014.

Lather, Patti. (1992). Critical Frames in Educational Research: Feminist and Post-
Structural Perspectives. *Theory Into Practice, 31*(2).

Leavy, P. (2009). *Method Meets Art: Arts-based Research Practice*. NY: Guilford Press.

Liefländer, Anne K., et al. (2013). Promoting Connectedness With Nature Through
Environmental Education. *Environmental Education Research, 19.3*, 370-384.

Lopez, K., & Willis, D. (2004). Descriptive versus Interpretive Phenomenology: their Contributions to Nursing Knowledge. *Qualitative Health Research*, *14*(5), 726-735.

Louv, R. (2005). *Last child in the woods: saving our children from nature-deficit disorder.* Chapel Hill, NC: Algonquin Books of Chapel Hill.

Malosh, D. (2010). Connecting to Nature through Art. *Green Teacher, 89*, 28-31.

Marcinkowski, T. J. (2010). Contemporary Challenges and Opportunities in Environmental Education: Where Are We Headed and What Deserves Our Attention? *Journal Of Environmental Education*, *41*(1), 34-54. doi:10.1080/00958960903210015

Martin, P. (2007). Caring for the Environment: Challenges from Notions of Caring. *Australian Journal Of Environmental Education, 23*, 57-64.

Maser, C. (2009). *Earth in Our Care: Ecology, Economy, and Sustainability*. New Brunswick, NJ: Rutgers University Press.

Mayan, M. J. (2009). *Essentials of Qualitative Inquiry.* Walnut Creek, CA: Left Coast Press.

Meyer, F. S., & Franz, C. M. (2004). The Connectedness to Nature Scale: A Measure of Individuals' Feeling in Community with Nature. *Journal of Environmental Psychology, 24*, 503-515. doi:10.1016/j.jenvp.2004.10.001

Moran, D. (2000). *Introduction to Phenomenology*. London; New York: Routledge.

National Energy Board. (2011). Canada's Energy Future 2013: Energy Supply and Demand Predictions to 2035. Retrieved from https://www.neb-one.gc.ca/nrg/ntgrtd/ftr/2013/2013nrgftr-eng.pdf

Nisbet, E. K., Zelenski, J. M., & Murphy, S. A. (2009). The Nature Relatedness Scale: Linking Individuals' Connection with Nature to Environmental Concern and Behavior. *Environment & Behavior, 41*(5), 715. doi:10.1177/0013916508318748\

Nisbet, E., Zelenski, J., & Murphy, S. (2011). Happiness is in our Nature: Exploring Nature Relatedness as a Contributor to Subjective Well-Being. *Journal of Happiness Studies, 12*(2), 303-322. doi:10.1007/s10902-010-9197-7

North, C. (2011). The sidelining of environmental care in outdoor education programmes: Why it happens, why it shouldn't and what we can do about it. *New Zealand Journal of Outdoor Education: Ko Tane Mahuta Pupuke, 2*(5), 35.

Oakley, J. (2011). Animality and Environmental Education: Toward an Interspecies Paradigm. *Canadian Journal of Environmental Education, 16,* 8-13.

Oakley, J., Watson, G. L., Russell, C. L., Cutter-Mackenzie, A., Fawcett, L., Kuhl, G., & Warkentin, T. (2010). Animal Encounters in Environmental Education Research: Responding to the "Question of the Animal". *Canadian Journal of Environmental Education*, *15,* 86-102.

Olivelle, P. (1992). *Hindu Scriptures on Asceticism and Renunciation*. (Translation). New York: Oxford University Press.

Patton, M.Q. (2002). *Qualitative Research & Evaluation Methods* (3rd ed.). London, UK: Sage.

Payne, P. (1998). Postmodern Challenges and Modern Horizons: Education 'For Being for the Environment.' *Environmental Education Research*, 5(1), 5-34.

Pedersen, M. A. (2001). Totemism, Animism and North Asian Indigenous Ontologies.
    Journal of The Royal Anthropological Institute, *7*(3), 411.

Peterson, N. (2011). Is the Aboriginal Landscape Sentient? Animism, the New Animism
    and the Warlpiri. *Oceania, 81*(2), 167-179.

Preece, R. (2005). *Animals and Nature: Cultural Myths, Cultural Realities.* Vancouver,
    BC: UBC Press.

Proulx, C. (2003). *Reclaiming Aboriginal Justice, Identity and Community*. Saskatoon,
    SK: Purich Publishing Ltd.

Randall, V. (2010). *'Feminism' in Theory and Methods in Political Science.* Marsh, D. &
    Stoker, G. (Eds). Basingstoke: Palgrave Macmilliam.

Rehorick, D. A. & Bentz, V. M. (2008). *Transformative Phenomenology: Changing
    Ourselves, Lifeworlds, and Professional Practice.* Plymouth, UK: Lexington
    Books.

Reid, A. (2003). Sensing Environmental Education Research. *Canadian Journal of
    Environmental Education*, *8*(1), 9-30.

Rennie, S. (2008). Toward a 21st-Century Understanding of Humans' Relation to Nature:
    Two Hats? *Journal of Environmental Education*, *40*(1), 55-61.

Riley-Taylor, E. (2002). *Ecology, Spirituality, & Education: Curriculum for Relational
    Knowing*. New York, NY: Peter Lang Publishing.

Roth, W. (2012). *First-person Methods: Toward an Empirical Phenomenology of
    Experience*. Rotterdam: SensePublishers.

Rudd, M. A. (2011). Scientists' Opinions on the Global Status and Management of Biological Diversity. *Conservation Biology*, *25*(6), 1165-1175. doi:10.1111/j.1523-1739.2011.01772.x

Russell, C. L. (2005). 'Whoever Does Not Write is Written': The Role of 'Nature' in Post-Post Approaches to Environmental Education Research. *Environmental Education Research*, *11*(4), 433-443. doi:10.1080/13504620500169569

Russell, C. L. (2006). Working Across and with Methodological Difference in Environmental Education Research. *Environmental Education Research*, 12(3/4), 403-412. doi:10.1080/13504620600799141

Schultz, P. (2002). Inclusion with nature: The psychology of human-nature relations. In P. Schmuck, W. P. Schultz (Eds.), *Psychology of sustainable development* (pp. 61-78). Dordrecht Netherlands: Kluwer Academic Publishers. Doi:10.1007/978-1-4615-0995-0_4

Schultz, P., & Tabanico, J. (2007). Self, Identity, and the Natural Environment: Exploring Implicit Connections with Nature. *Journal of Applied Social Psychology, 37*(6), 1219-1247. doi:10.1111/j.1559-1816.2007.00210.x

Schwandt, T. A. (2007). *The Sage Dictionary of Qualitative Inquiry* (3rd ed). London, UK: Sage.

Seifert, L. S. (2009). Mainstreaming Arts-based Research: ABR's Release from Marginalization. *Psyccritiques*, *54*(1), doi:10.1037/a0014710.

Sium, A., Desai, C., & Ritskes, E., (2012). Towards the 'tangible unknown': Decolonization and the Indigenous future. *Indigeneity, Education and Society*. *1*(1), pp. I-XIII.

Smith, J. A., Larkin, M. H., & Flowers, P. (2009). *Interpretative Phenomenological Analysis: Theory, Method and Research.* Los Angeles; London: SAGE, 2009.

Song, Y. (2012). Crossroads of Public Art, Nature and Environmental Education. *Environmental Education Research, 18*(6), 797-813.

Sowards, S.K. (2006). Identification Through Orangutans: Destabilizing the Nature/Culture Dualism. Ethics and the Environment. *11*(2).

Spilner, M. (1997). Connecting with nature. *Prevention*, *49*(3), 128.

Stebbins, R. C. (2012). *Connecting with Nature: A Naturalist's Perspective*. Arlington VA: National Science Teachers Association Press.

Stern, M. J., Powell, R. B., & Ardoin, N. M. (2008). What Difference Does It Make? Assessing Outcomes from Participation in a Residential Environmental Education Program. *Journal of Environmental Education, 39*(4), 31-43.

Stevenson, R. B., Brody, M., Dillon, J, Wals, A.E. J. (2013). *International Handbook of Research on Environmental Education*. New York, NY: Routledge.

Stibbe, A. (2012). *Animals Erased: Discourse, Ecology, and Reconnection with the Natural World*. Middleton, CT: Wesleyan University Press.

St. Pierre, E. (2000). Poststructural Feminism in Education: An Overview. *International Journal of Qualitative Studies in Education, 13*(5), 477-515.

Stuckey, P. (2010). Being Known by a Birch Tree: Animist Refigurings of Western Epistemology. *Journal for The Study of Religion, Nature & Culture, 4*(3), 182-205. doi:10.1558/jsrnc.v4i3.182

Tam, K. (2013). Concepts and Measures Related to Connection to Nature: Similarities and Differences. *Journal of Environmental Psychology, 34*, 64-78.

Tauber, P. G. (2012). An Exploration of the Relationships Among Connectedness to

      Nature, Quality of Life, and Mental Health. (Doctoral dissertation) Retrieved

      from Utah State

      University http://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=2309&context=etd

Taylor, J. G. (1999). *The Race for Consciousness*. Cambridge, Mass: A Bradford Book.

Tuck, E., McKenzie, M., & McCoy, K. (2014). Land education: Indigenous, post-

      colonial, and decolonizing perspectives on place and environmental education

      research. Environmental Education Research, 20(1), 1-23

Tufford, L., & Newman, P. (2012). Bracketing in Qualitative Research. *Qualitative*

      Social Work, *11*(1), 80-96. doi:10.1177/1473325010368316

Turner, N. (2005) *The Earth's Blanket: Traditional Teachings for Sustainable Living.*

      Vancouver, BC: Douglas & McIntyre.

Vining, J., Merrick, M. S., & Price, E. A. (2008). The Distinction between Humans and

      Nature: Human Perceptions of Connectedness to Nature and Elements of the

      Natural and Unnatural. *Human Ecology Review, 15*(1), 1-11.

Wall, C., Glenn, S., Mitchinson, S., & Poole, H. (2004). Using a reflective diary to

      develop bracketing skills during a phenomenological investigation. *Nurse*

      Researcher, *11*(4), 20-29.

Wallace, M. I. (2012). Christian Animism, Green Spirit Theology, and the Global Crisis

      Today. *Journal of Reformed Theology, 6*(3), 216-233. doi:10.1163/15697312-

      12341272

Warburton, T., & Saunders, M. (1996). Representing teachers' professional culture

through cartoons. *British Journal of Educational Studies*, *44*(3). 307-325.

Weinstein, N., Przybylski, A. K., & Ryan, R. M. (2009). Can Nature Make Us More

Caring? Effects of Immersion in Nature on Intrinsic Aspirations and Generosity.

Personality & Social Psychology Bulletin, 35(10), 1315-1329.

doi:10.1177/0146167209341649

Weitekamp, E.G.M. & Kerner H. (2002) *Restorative Justice; Theoretical Foundations*

(Eds), Devon UK: Willan Publishing.

White, P. R. (2011). A Phenomenological Self-Inquiry into Ecological Consciousness.

Ecopsychology, *3*(1), 1-10. doi:10.1089/eco.2010.0054

Williams, J. (2005). *Understanding Poststructuralism.* Chesham: Acumen.

Willig, C. (2013). *Introducing Qualitative Research in Psychology*. Maidenhead: Open

University Press.

Wilson, W.A.C. (2006). Burning Down the House; Laura Ingells Wilder and American

Colonialism. In Jacobs, D. T. (Ed), *Unlearning the Language of Conquest:*

Scholars Expose Anti-Indianism in America: Deceptions that Influence War and

Peace, Civil Liberties, Public Education, Religion and Spirituality, Democratic

Ideals, the Environment, Law, Literature, Film, and Happiness. (pp.66-80).

Austin: University of Texas Press.

Young, J., Haas, E., McGown, E. (2010). *Coyote's Guide to Connecting with Nature.*

Shelton, WA: Owlink Media Corporation.