The Epistemological Possibilities of Love: Towards Relational and Ecological Healing

by

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Abstract

This thesis theorizes that the interlinked crises of wounded relationality and environmental degradation are exacerbated by the marginalization of deeply relational epistemologies in the formal education integral to Modern Western culture. Based on this theorizing, this work examines the epistemological possibilities of love, including non-anthropocentric ecological love as defined in the final chapter. The thesis recommends numerous pedagogic activities for healing relational epistemologies, from selected love and ecofiction reading, to wild pedagogies activities, to playful ecolinguistic revisions, to expanded ecocritical storytelling.

Secondary research for this thesis derives from interdisciplinary fields and includes: attachment theory; biopsychosocial dimensions of wellbeing; neurobiology of reading; ecolinguistics; ecocriticism; psi research; and plant, animal, and quantum science. Additionally, the author uses her experiences as a college English instructor, as a mother, as a child, and as a near-death experiencer to provide examples of eco-anxiety, intuitive interspecies communication, and transrational knowing, enabled through relational epistemologies.

This thesis project explores love epistemologies and the transformative force of love through intuitive interspecies fieldwork with plant, animal, and other more-than-humans with a collaborative, emergent eco-love methodology. This fieldwork suggests that human love wounds may be the primary source of ecological degradation. Understanding and ameliorating this problem requires redefining love from an ecological rather than anthropocentric perspective. Ultimately, love epistemologies could enable collaborative transrational knowledges, leading toward increased personal, humanitarian, and ecological healing.

Keywords: Love; epistemology; eco-pedagogy; eco-spirituality; ecocriticism; intuitive interspecies communication

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Chapter 1.

Introduction and Motivation

In order to meaningfully address ecological and humanitarian crises facing our planet, humans in techno-industrialized cultures need new ways of knowing, new ways of being in the world, and new ways of relating to our more-than-human neighbors (e.g. Barrett, 2013; Kripal, 2019). Some of these "new" ways are in some sense a "returning" to old ways or a making way for ongoing but suppressed ways. Malidoma Somé (1997) suggested that going through shamanic rituals in his Dagara village in Africa "restored" the region of his "psyche that had been put to sleep at the schools of Western thought" (p. 9). In *Reshaping the University* (2022), Sami Scholar Rauna Kuokkanen (2022) elucidated the ways Western academia actively, if unintentionally, oppresses Indigenous epistemologies. The *what* of Sami knowledge cannot be understood or appreciated, Kuokkanen asserted, when detached from the *how* of Sami knowledge. Settler scholars do not have a uniform epistemology either. Ultimately, far too many people have felt constrained, suffocated, or sidelined by contemporary Western-style education. Here, "*new* ways of knowing" is shorthand for *suppressed, emerging* and *re-emerging* ways of knowing. If techno-industrial humans are going to learn to "be differently in the world" (Heggen et al., 2022, p. 102) we not only need new ways of knowing—we need an educational environment that is expansive, flexible, humble, and courageous enough to make space for these ways.

As a means of exercising, exploring, and researching new ways of knowing, this thesis links transrational knowing, love research, and ecological education, three promising and overlapping alternatives to formal education's hyper-rationality, individualistic orientation, and brain-centeredness. Chapters for this thesis can be seen as roots stemming from and continuously interacting with this central triad. The research is further shaped by the many years I have spent as a college English instructor, a biopsychosocial research assistant to Dr. Gabor Maté, a writer of ecocritical fiction, and a deeply spiritual person with no particular religious affiliation. Additionally, this research stems from my identity as a Westerner and a settler (of predominantly Irish and Ukrainian heritage) thinking and feeling their way out of the particular Western epistemological and ontological constraints contributing to many forms of relational suffering, from the "epidemic of loneliness" (Jeste et al., 2020) to ecological destruction.

MJ Barrett (2013) explained that transrational knowing includes “dreams, intuitions and interspecies communication” and is supported by particular kinds of ontological engagements with the world (p. 189). Barrett (2013) clarified, “Intuition is a useful word, but since it frequently gets reduced to experience-based form of knowledge, it is not sufficient to recognize the expansive nature of transrational knowing” (p. 189). Both the what of transrational knowing and the how of transrational knowing have typically been disbelieved and disregarded in academia (Somé, 1997; Radin, 2006; Gagliano, 2018; Kripal, 2019). What conversations, research projects, experiences, and cultural shifts do we fail to make because the culture of Western academia does not make space for transrational epistemologies? For example, assumptions that intuitive interspecies communication is not possible negates the prospect of asking pine trees, orangutangs, and leatherback sea turtles directly how humans can better support them, rather than relying solely on human perceptions, ideas, and tools.

The growing field of love research, with few exceptions (e.g. Noddings, 1984; Jaggar, 1989) tends to overlook love as a function of knowing. This omission results, in part, from narrow definitions of love that characterize it in anthropocentric terms from an individualistic ontology (e.g. Fromm, 1956; hooks, 2001; Oord, 2010). That is, researchers understand well what love means to an individual human and their capacity for relationships with other humans, but that is only one aspect of understanding love. To meaningfully understand a tree, we might also try to understand the ecology of the forest. To comprehend love more meaningfully, we might also try to comprehend it from an ecological perspective, to consider what love might be and how might function beyond the human-to-human experience. Love may be the ultimate transformative agent and, as such, those of us with an interest in transforming culture might take a more active interest in the potentials of love and in love research.

Environmental education offers important alternatives to formal education’s constrained ways of knowing, such as embodied knowing and increased social and imaginative learning. Here, I align with Blenkinsop et al. (2017) who proposed “that the role of environmental education ought to be one of actively undoing everything that places the human at the centre, while extending the idea of interconnection, dignity, and increasing possibility for all” (p. 594). Outdoor learning, a central feature of environmental education, is inherently more relational than learning within the flat, static materiality of standard classrooms where humans are dominant and more-than-humans are generally excluded (Blenkinsop & Kuchta, 2024). Environmental learning also attends to affective and ethical aspects of learning by addressing issues of care, responsibility, eco-anxiety, and so on. Yet, although love research has been expanding in and enriching a multitude of

disciplines over the past few decades, environmental education has been a little slow on the uptake (for exceptions, see overlapping fields: Rose, 2011 & 2017; Macy, 2021). This oversight is curious because, anecdotally, many, perhaps most, environmental education practitioners and researchers cite love for the environment as the central motivator for their work. Issues of care, belonging, devotion, beauty, sensuality, curiosity, generosity, and other qualities typically associated with love are frequently discussed in both casual conversations and research (e.g. Chawla, 2009). Perhaps the traditional dominance of the field by rugged, adventure-oriented Western men has led to the dearth of love research. On the other hand, perhaps researchers in the field have simply not realized how fruitful and vast an exploration of love research might be.

1.1. Research Questions

This leads to the research question that catalyzed this project: What can we learn from, with, and through love that we might not be able to learn any other way? That is, how might love enable knowledges that are otherwise unavailable? And how can we redefine love from an ecological perspective? How can pedagogical activities encourage more love (bonding, devotion, compassion, understanding, care, generosity, etc.)? Answers to these questions often come in the form of my own personal narratives along with the stories my students, fellow scholars, and others have shared with me. In the effort to address the links between transrational knowledges and love research from an ecological perspective, this thesis expands understandings of: ecocriticism; ecolinguistics; ecopedagogy; eco-spirituality; intuitive interspecies communication; relational capacity; and relational ontology.

Hostile divisiveness, violence, wars, and ecological destruction appear to be born out scientifically and spiritually fallacious notions of fundamental separateness and inherent differences between beings—*and* between beings and “nonbeings.” They appear born out of the relational wounds of vast numbers of contemporary humans and out of a narrow and dogmatically imposed epistemology that prioritizes materiality above all else. Seen from this perspective, the differences between our material bodies (skin colour, species) and the consequent lived realities is the predominant and primary perspective for understanding reality. My research project deliberately swims upstream against these trends. It highlights fundamental interconnections between beings—lizard and child, woman and Beech tree, enemy soldier and civilian, and in doing so, it aspires to greater justice, deeper understanding, and more extensive transformation of

the dominant North American culture than a focus on difference alone seems to afford. For example, pedagogical practices that support diverse ecological histories (see chapter 2) and diverse ways of understanding love (see chapters 3 & 9) are suggested. In prioritizing the unifying quality of love, this research works to support greater cognitive diversity (see chapters 4 & 6) increased respect for Indigenous responses to environmental harms (see chapter 6), more global peace (see chapter 7), and more ecological rather than anthropocentric thinking (see chapters 5, 8 & 9). This love epistemology research offers, therefore, not a flattening of difference but an expanded celebration of difference. This research rejects the current culture's dogmatic imposition of hyper-individualism and left-brain rationality by illustrating and exploring deeply relational and intuitive epistemologies. Most importantly, it shows what love might offer—for learning, for being, for individual and collective healing—when we come to understand the epistemological potential of love.

1.2. Thesis Organization and Chapter Outline

This manuscript-style thesis contains a collection of publishable (and published) articles, each of which forms a chapter. The chapters of a traditional thesis might function like organized and stackable building blocks (context, then literature review, then methods, etc.). However, for this project, I am, in a sense, standing in the centre of an ecosystem of environmental, epistemological, and love theory and articulating what I see, with each chapter focussed on a different aspect of that ecosystem. In this way, the chapters are interdependent and overlapping but can ultimately be read in any order. Different aspects of the context, literature review, methods, and findings can be located within all the chapters.

Broadly speaking, the methodology can be divided into two primary parts: 1) exploring seemingly inexplicable knowledges through narratives (autoethnography, narrative inquiry, transmaterial ecocriticism) and 2) exploring practices to restore relationality (including ecolinguistics, neurobiological theory of reading, wild pedagogies practices, and the emergent eco-love methodology developed during fieldwork). Additionally, rather than relying on or positing a singular definition of love, this thesis works within an ecology of definitions and theories by referring to multiple overlapping kinds of love, including: neurobiological love; more-than-human experiences and expressions of love; ecospiritual love ("light/love"). Love theory is drawn from diverse fields, including psychology, sociology, biology, theology, and philosophy.

Ultimately, I assert that love enables knowledges and ways of knowing that are otherwise unavailable even though these epistemologies are routinely overlooked and dismissed within standard education. A move toward supporting them can allow for more cognitive diversity, joy, belonging, and relational and ecological healing. Pedagogical practices for supporting love epistemologies are suggested throughout.

Chapter 2 (modified from published abstract)

Chapter 2 acknowledges that uncertainty about the future is a defining feature of our times due to ongoing and global environmental emergencies. This reality prompts a re-evaluation of the traditional role, purpose, and ethics of post-secondary courses such as English literature. It recommends pedagogical practices that support holistic learning, community building, ecological awareness, and adaptation skills. Using an ecofiction novel, it suggests three ecocritical practices guided by wild pedagogy concepts to support students' emotional, social, and ecological selves, and moves ecocritical curriculum beyond unperceived anthropocentric values.

Chapter 3 (modified from published abstract)

The environmental crisis, outlined in the previous chapter runs alongside decreasing relational capacity of successive generations of American youth, as outlined in this chapter. Similarly, this chapter offers fiction as a mitigating solution. It explains that relational capacity hampered in early childhood, may be fostered by relationally focused literature in later childhood. Using general theories of attachment and the neurobiology of reading, this chapter explains how two novels draw teen readers into a potent shared space wherein love is defined, witnessed, and imaginatively experienced. However, another teen romance amplifies reader anxiety by prioritizing materialistic and extrinsic values, providing illogical trajectories for love, and rewarding its protagonist for manipulative behavior.

Chapter 4

Like the first two chapters, this chapter identifies another key area of concern underscoring this research: the denial of transrational epistemologies. Chapter 4 relays a series of stories about love/light experienced by the author and others to illustrate their profound educative potential.

Narratives of these kinds have tended to be overlooked, disregarded, and denied by dominant Western-style rationalism despite their capacity to spark radical personal, social, and ecological change. Here, I map new terrain—transmaterial ecocriticism—which adds to and expands on the existing fields of material ecocriticism and postmaterial ecocriticism. Transmaterial ecocritical narratives shift beyond the known corporeal world in ways that, nonetheless, positively impact it.

Chapter 5 (modified from published abstract)

Like the previous chapter, this chapter points to an area of often unacknowledged epistemological limitation and works toward expansion. This chapter explores the relational and ecological possibilities of the English language. Ecological, colonial, and relational troubles are baked into the English language both in its structure and usage—issues rarely addressed in environmental sustainability education. However, these problematics might be mitigated with playful linguistic adjustments and careful assessments of embedded cultural assumptions. This eco-linguistic chapter illustrates ways English can move toward greater relationality through structure, form, and content. Practices for engaging ESE students in these tasks are suggested.

Chapter 6 (modified from published abstract)

Where the previous chapter identifies eco-linguistic barriers to relational thinking, this chapter explores cultural and educative barriers to relational thinking. This chapter asserts that love binds people to land and offers a 'between' space, where ecologically responsible and relationally attuned knowledges can emerge. Yet within the dominant North American culture, love for the natural world regularly leads to ostracism, ridicule, and violence. This chapter articulates a relational ontology and illustrates the epistemological possibilities offered through love relationships with land by examining the author's experience of learning to walk in the dark on a remote mountain while pregnant. Drawing on Teilhard de Chardin's theories of love, Blenkinsop, Piersol, and Sitka-Sage's analysis of the eco-double consciousness, and Gilligan and Snider's assessment of relational fracturing in patriarchal society, this chapter urges a shift in the dominant North American culture to take back our right to love and be loved by the land we inhabit.

Chapter 7 (modified from published abstract)

Chapter 7 expands on the epistemological potential of relational ontologies from the previous chapter by shifting from a local to global level. Like several of the previous chapters, it identifies ways deeply relational and intuitive epistemologies are marginalized. The chapter describes the author's clairvoyant visions of war and personal experiences of transrational knowledges. It is an account of one Westerner coming to know outside of and despite Western episteme. Despite pervasive epistemological pressures, some individuals experience and learn to cultivate seemingly alternative ways of knowing. In doing so, they are turning toward knowledges that arise from an illuminating love. The illusory perception that humans are fundamentally separated from each other and from more-than-human kin constitutes one form of fragmentation that has resulted in ecological and humanitarian disasters. Love, on the other hand, links us with others in ways that both relate to and transcend materiality and the five senses. This chapter asserts that transrational knowing—whether between humans, other species, or humans and other species—is a valid and readily available form of knowing that exists outside of and in spite of Western episteme.

Chapter 8

Linking love epistemologies to relational and ecological healing, Chapter 8 presents an overview of my intuitive interspecies (IIC) fieldwork with trees and other more-than-humans and explains the role of love in IIC. Intuitive interspecies communication (IIC) is an ancient and reemergent way of knowing with promising implications for today's troubled humans and mistreated planet. IIC processes, successes, personal experiences, and uses in collaborative research, farming, veterinary practices, and land management practices are becoming increasingly common and documented. My own fieldwork aimed to determined: *What is the role of love in IIC?* and *How might love enable IIC with trees*? Using an emergent eco-love methodology, this chapter reports on the key themes: doctoral work is not conducive to IIC; IIC supported physical, relational, cultural identity, and epistemological healing; and IIC fostered exponential learning.

Chapter 9

To make space for love epistemologies, "love" can be redefined beyond the current heart-centered, desire-oriented, and humanistic associations. Theories of love in the fields of psychology, cultural studies, philosophy, science, and theology almost always centralize human experiences of love. In doing so, they may be 1) inadvertently reinforcing environmentally problematic assumptions; 2) limiting understandings of the nature, role, and potential of love; 3) reducing human capacity for love on both conceptual and biological levels; and 4) overlooking ways of knowing that are enabled only through love. This paper shows how love, whether defined neurobiologically or as an action is evidenced in octopuses, Beech trees, crows, squirrels, fungi, and more. The paper concludes by redefining love from an eco-spiritual perspective and discussing specific epistemological implications.

Chapter 2.

Rewilding the Imagination: Teaching Ecocriticism in the Change Times

Preface to Chapter 2

This chapter illustrates some of the immediate pedagogical challenges resulting from environmental degradation. It suggests teaching activities that gently foster alternative ways of knowing through deepening relationship with place. Fiction is used as a tool for expanded social imagining and imaginative experiencing.

This chapter presents the contents of the paper published by:

> Kuchta, E. C. (2022). Rewilding the imagination: Teaching ecocriticism in the change times. *Canadian Journal of Environmental Education.* https://cjee.lakeheadu.ca/article/view/1696

2.1. Abstract

Uncertainty about the future is a defining feature of our times due to ongoing and global environmental emergencies. This reality prompts a re-evaluation of the traditional role, purpose, and ethics of post-secondary courses such as English literature. The present moment calls for pedagogical practices that support holistic learning, community building, ecological awareness, and adaptation skills. Ecocritical instruction guided by wild pedagogy concepts supports students' emotional, social, and ecological selves, and moves ecocritical curriculum beyond unperceived anthropocentric values. The unique neurobiological impacts of reading fiction make ecofiction a valuable resource for fostering social imagining and community building. Wild pedagogy

principles are evident in Delia Owen's 2018 ecofiction novel, Where the Crawdads Sing, and can be explored through three suggested activities.

Résumé

Les urgences environnementales mondiales actuelles font de l'incertitude face à l'avenir l'une des caractéristiques dominantes de notre époque. Cette réalité appelle la réévaluation du rôle, de l'objectif et de l'éthique traditionnels des cours postsecondaires (ex. la littérature anglaise). L'heure est venue d'adopter des pratiques pédagogiques qui favorisent l'apprentissage holistique, le développement du sentiment d'appartenance, la conscience écologique et la capacité d'adaptation. L'instruction écocritique guidée par les concepts des pédagogies de la nature soutient le soi affectif, social et écologique des apprenants et permet au programme d'enseignement écocritique d'aller au-delà des valeurs anthropocentriques inconscientes. La lecture d'œuvres de fiction entraîne des répercussions neurobiologiques particulières; ainsi, l'écofiction est une ressource précieuse pour nourrir l'imagination sociale et le sentiment d'appartenance. Les principes des pédagogies de la nature sont évidents dans le roman d'écofiction Where the Crawdads Sing de Delia Owen (v.f. : Là où chantent les écrevisses), publié en 2018, et ces principes peuvent être explorés à travers les trois activités suggérées.

Keywords: ecocriticism, wild pedagogies, ecofiction, Delia Owens, ecopedagogy, post-secondary education, literature, environment, neurobiology of reading

Mots-clés : écocritique, pédagogies de la nature, écofiction, Delia Owens, écopédagogie, éducation postsecondaire, littérature, environnement, neurobiologie de la lecture

2.2. Introduction: Teaching in the Change Times

We are living in the Change Times. Unprecedented and ongoing environmental alterations caused by climate change and biodiversity loss make even the most routine assumptions about the

ongoingness of human lives and lifestyles uncertain. These environmental instabilities throw the economic, technological, social, and familial lives of every human on the planet into uncertainty (Bendell, 2018; Bringhurst & Zwicky, 2018). We cannot take for granted that any human culture anywhere on the planet will be able to maintain their current lifestyle into the next few decades. These "disturbing times, mixed-up times, troubling and turbid times," as Haraway (2016, p. 1) describes them, call for a radical reassessment of the way we conceive of post-secondary pedagogical practice.

Growing numbers of young adults arrive for their first semester at postsecondary institutions knowing or sensing these deep uncertainties. Indeed, skyrocketing diagnoses of North American youth anxiety and depression (Twenge, 2000; Gabor Maté, 2015, personal communication) and alarming increases in youth suicide (Twenge et al., 2018) may be fuelled in part by this "knowing," whether it is conscious and located in the brain or somatic and sensed in the nervous system. Acknowledged or not, instability and uncertainty are discomforting facts of the present moment. Here in North America, we experience these uncertainties in unpredictable weather patterns and the rising costs of unpredictable food crops. We sense them in teetering political systems, such as the rise of nationalism, the cults of personality-politicians, and the corporate corruption of democracy. As I write this, news sources are livestreaming simultaneous updates on China's coronavirus epidemic, Trump's impeachment, Brexit, and the unprecedented Australian bushfire season. But by the time you read this, we'll be barrelling headlong toward the next global shocks.

Of course, upheaval and change have always been features of life. Certainly, generations of Indigenous and Black people living in North America have faced catastrophic change and upheaval as whole communities, cultures, and ways of life have been obliterated by the forces of genocide, slavery, and systemic racism. The changes threatening the world today threaten to wipe out the fragile gains made by these and other groups. Environmental degradation exacerbates inequalities and affects every human, every ecosystem, every plant, every animal, every ocean, the earth's air, and more.

As an English instructor, I've taught a few thousand, culturally-diverse students at several post-secondary institutions in British Columbia. We've examined news articles and written essays about current events in high-level ESL and first-year composition and research classes. We've studied environmentally oriented novels, short stories, plays, and poems in first and second-year literature classes. Many of my first-year English students tell me they cannot stomach the news,

including climate change news, and deliberately avoid it. They may be consumed with their own personal disasters, already literally twitching with anxiety or else morose with depression that doctors chalk up to brain chemistry. Therapists Atkins and Snyder (2018) rightly suggest that we must understand "the messages of these symptoms as a call for a shift in values and world views" (p. 90). One of my recent students, a self-described "climate refugee," lost their home and community in a typhoon of anomalous strength. Another is grieving his childhood beaches in the Mauritian Islands as the rising sea eats up the shore. A number of domestic students have confided to me that they don't expect to reach old age because of the emerging climate catastrophe. One of these students announced to the class that she felt "hopeless" about the state of the environment and, therefore, didn't see the point in discussing it or reading about it. Those sitting next to her nodded in agreement.

At the other end of the spectrum, many of my students are brand new to the concept of global environmental concerns. Like most North American college instructors, I teach a large percentage of international students, the majority of whom are new arrivals to Canada and are full of hope about their bright futures. Educational systems in their home countries tend not to prioritize environmental learning. When asked to write about the best ways to address environmental problems in my composition classes, quite a few of these students recommend stopping the practice of throwing garbage out the car window—because it makes the streets "unattractive." Some have never been introduced to the concept of "the environment" as a topic, and most do not understand our species' complete interdependency with nature's systems and processes. Nonetheless, having grown up on countryside farms, many of them have rich ecological knowledges that can exceed that of domestic, urban students. For example, one of these students spent her entire childhood sleeping outdoors with her grandmother, listening to her tell stories about the stars. For her, childhood, storytelling, sleep, and familial love were deeply intwined with starlight.

These diverse student knowledges and uncertain life trajectories raise serious questions for me about the role, purpose, and ethics of leading post-secondary classes. How can I prepare young people for an unknowable future? What is the appropriate starting point? How do I weigh the need for hope against the need for honesty and adjustment to new realities? Abundant climate change and biodiversity loss data show that humanity's continued efforts to ameliorate and reduce environmental harms amount to far too little, far too late. In light of this reality, how can we prompt a radical shift in worldview so that the environmental harms of anthropocentrism are not accidentally replicated over and over? Might a reorientation toward social resilience,

expressive communication, meaning making, social connection, and adaptation skills take precedence over the teaching of thesis statements, comma use, and citation style?

Some of these questions are too large to answer in a paper of this size. Nonetheless, post-secondary educators need some direction without delay. This paper argues that the literary field of ecocriticism, paired with wild pedagogies touchstones, supports diverse student groups in more holistic, joyful, creative, adaptive, and socially imaginative educational practices that better prepare them for ongoing ecological uncertainties. While this effort originates in pedagogical concerns for the discipline of English, suggestions here may benefit a variety of disciplines.

I assert that the Change Times call for pedagogical practices that promote holistic learning, community building, ecological awareness, and adaptation skills. To start, post-secondary education must shift its focus from brain to whole being (Sean Blenkinsop, personal conversation, 2017). Students are navigating complex emotional responses to our changing world—denial, grief, anxiety, anger, hope, determination. They need learning environments that acknowledge this range of emotion. As much as we might wish it, we cannot resolve or completely alleviate their grief and anxiety; the facts of the climate emergency are real and increasingly evident in student experiences of wildfires, storms, floods, food shortages, and displaced peoples. Thus, a more compassionate, albeit emotionally challenging, path involves acknowledging difficult emotion, holding space for it, and working to build collective resilience.

Most Western post-secondary education is disconnected from the wisdom of the body. How—one might wonder—can somatic experience inform learning in a first-year English classroom? Typically, it rarely does. In the average English course, for example, students are expected to do little more than think and speak. Their bodily experience is largely considered irrelevant. However, the activities described later in this article show how somatic experiences can expand creativity, critical thinking, and literary comprehension.

Despite the gravity of the moment, numerous scholars and activists suggest paths forward that offer more personal authenticity, deeper meaning, stronger bonds, and greater joy (e.g., Akomolafe, 2020; Bendell, 2018; Jickling, 2018). Thus, while grief defines the present condition for many of us, the upending of our education system might nevertheless be undertaken with righteous satisfaction, healthy rebelliousness, and even playful defiance. Haraway (2016) urges us to "to make trouble, to stir up potent response to devastating events, as well as to settle troubled waters and rebuild quiet places" (p. 1). Harney and Moten (2013) call for wildness as a relief

from and active resistance to unjust and irreparable systems of injustice. In following Bendell's lead (2018), our confrontation with personal and societal denial and grief may allow us to refocus "on truth, love and joy in the now" (p. 19). Akomolafe (2020) suggests we need the trickster now, and we need to allow "ourselves to do pleasurable things in the face of the storm."

Greater joy and more holistic selfhood are foundational for the Change Times' greatest pedagogical necessity: Students need help to imagine new ways of *being* in the world (Jickling et al., 2018). To truly address the anthropocentric fallacies of our post-secondary institutions, we must rethink all aspects of teaching from an ecocentric perspective. That is, we must rethink an earth-centred approach to education that prompts us to ask how the purpose, content, and form of our classes and institutions support *all* life rather than just human life. This radical shift in our dominant pedagogical model would include valuing relationship over individuality and actively making room for the voices of the more-than-human in our pedagogical practices. Wherever possible, those new ways of being should also involve more joy, more freedom, and greater flourishing than standard education has allowed (Jickling et al., 2018). Because literature and storytelling launch us into an imaginative state and *illustrate* new ways of being, they can benefit many disciplines at this time.

2.3. Ecocriticism to the Rescue, Sort Of

The field of literary ecocriticism offers one potential pathway for expanding pedagogical practice in the Change Times, but it is embedded within the standard Western education system, which contains many unchecked assumptions and habits. Western education rewards competition over cooperation, individuality over interdependency, rights over responsibility, categorization over holism, and thinking over feeling. Like most university students, many ecocriticism students sit at solitary desks, competing for grades on individual assignments, emphasizing cognition rather than emotion or intuition. The unspoken values imparted through these Western-style lessons work well at supporting the culture of capitalism, consumerism, patriarchy, and anthropocentrism. Yet, in many of these classes, little or no attention is given to the colonization of wild nature required to build the post-secondary institutions within which to hold these ecocritical discussions (Sean Blenkinsop, personal conversation, 2016).

Ecocriticism emerged in the 1990s to examine the relationship between humans and non-human nature in literature, art, architecture, and related fields. The prominent ecocritic Greg Garrard (2012) suggests, “Ecocriticism has been preoccupied with pedagogy since its inception” (p. 1). The statement may be broadly true, particularly in the comparative, that is, compared to other literary subfields which hardly consider pedagogy at all. Yet, this pedagogical reflection in ecocriticism often doesn’t go far enough in addressing the anthropocentric and individualistic foundations that give rise to unecological ways of being in the world. The field tends to orient from the Western ontology of individualism and still positions humans as the ultimate authorities, as the “knowledge holders,” while more-than-humans are assumed to be passive objects to be studied.

Indeed, a great many ecocritics and ecocritical journals have little or no focus on teaching practices. Even those that do (e.g., Fassbinder et al., 2012; Garrard, 2012) largely make adjustments to current pedagogical practice rather than questioning foundational assumptions embedded within those practices. Yet unchecked foundational biases and modes of operation hamper the field’s potential to truly transform education and offer young people new and better ways of being in the world. Jickling (2018) elucidates this point: “Education, as it is most often encountered—that is, inside, seated, standardized, and more-or-less still—is a work of abstraction and heavily, perhaps even oppressively, mediated experiences” (p. x). Ecocriticism that is taught within the enclosure of a typical classroom, with traditional composition assignments, under the assumption of the isolation of the individual, and without requiring students to consider their own ecological position may unwittingly replicate harmful ideologies of the status quo.

Although scholars like Garrard (2012) have meaningfully interrogated the pedagogical possibilities of ecocriticism, the wild pedagogies conceptions carry the discussion farther and clarify a helpful theoretical framework from which to develop course-specific practices. In general, the field of ecocriticism contains scant discussion of the pedagogical *practices* that might decentre the human and attend to the voices of the more-than-human.

The authors of *Wild Pedagogies* (Jickling et al., 2018) articulate that in light of our current ecological emergency, “educators need to trouble the dominant versions of education that are enacted in powerful ways and that bend outcomes towards a human-centred and unecological *status quo*” (p. 1). This effort should involve all levels of education and all disciplines. While the discussion on the ecopedagogy of English is limited both in quantity and scope, environmental education has a long history of ecopedagogical development. However, as Garrard (2010) points

out, the fields of literary ecocriticism and environmental education do not talk to each other. Garrard rightly acknowledges, "teachers of ecocriticism and environmental education researchers largely seem to work in mutual unawareness" of each other's work (p. 233). In addition to its other benefits, the wild pedagogies touchstones offer a helpful point of convergence.

Instructors of ecocriticism may spend enormous energy planning lesson content but overlook subtle messaging occurring through lesson *form*. In many ecocriticism classrooms, the physical separation of students from more-than-humans goes unacknowledged. For example, while land acknowledgement to Indigenous Nations is frequently offered, acknowledgement of the displaced animals, plants, water ways, and ecosystems likely isn't. Additionally, in the classroom, nuanced messages about compartmentalization, the isolation of the self, and social hierarchies may be imparted (Sean Blenkinsop, 2016, personal communication) along with the notion that *real* learning takes place in human-made spaces. Consequently, students are neither shaken from the institution's anthropocentric focus nor asked to consider their own participation in the colonization of the more-than-human realm. Even from a literary analysis perspective, entirely indoor ecocritical curriculum may be of reduced benefit because it inadvertently fosters overly-simplified conceptions of more-than-humans.

Researchers suggest the voices of the more-than-human world are actively oppressed by Western, industrial, and capitalistic cultural tendencies (e.g., Derby et al., 2015). Just as the anti-colonial movement has sought to listen to the voices of oppressed, marginalized, and overlooked peoples, so too has the wild pedagogies movement sought to listen to the oppressed, marginalized, and overlooked voices of more-than-humans. What does the red maple tree on the campus lawn want? How does it manage its needs? How does it enact its agency? What messages might it bring to the ongoing ecocritical conversation?

Some scholars may dismiss the notion that trees and other more-than-humans have the capacity and right to communicate on their own behalf. To them, this claim veers close to "magical thinking" and resides outside acceptable scholarly practice. As Randy Laist (2013) explains, the typical urbanite sees plants as "a category of things that are alive like we are, but alive in a way that is utterly different, closed off from our capacity for empathy, omnipresent but unknown, seductive but unresponsive" (p. 14). The right and capacity of women, Blacks, and children with disabilities to communicate on their own behalf was once widely challenged too. It's fallacious to ignore more-than-human voices on the grounds that one feels odd or uncomfortable doing so—or that we should continue to treat more-than-humans as techno-

industrial cultures have been, without risking re-evaluation. Protections for marginalized groups will always require discomforting reassessment of the world and humbling recognition of mistakes. Furthermore, individuals and cultures who have developed relationships with maple trees, alligator lizards, and glacial rivers attest that the more-than-human world can and does communicate and act on behalf of self and others in highly complex and compelling ways.

2.4. A Marriage of Ecocriticism and Wild Pedagogies Conceptions

Ecocritical courses guided by wild pedagogies conceptions shift students outside the classroom and its literal, yet invisible, anthropocentric framing. Wild pedagogies offers a pathway for: 1) decentring the human instructor, 2) relationship-building with the natural world, 3) holistic learning, 4) attending to cultural and experiential diversities, and 5) joyful and wild flourishing. These pedagogical practices are only “new” by dominant, Western educational standards; for example, Indigenous educational practices are innately holistic, experiential, relational, supportive of diversity, and born from the land (Ahenakew, 2017; Sheridan & Longboat, 2006; Marsden, 2019). Perhaps, as Sheridan and Longboat (2006) imply, the immature relationship between settler culture and Turtle Island is slowly maturing into conceptions made available through the land itself. When ecocriticism is guided by wild pedagogies principles, postsecondary students benefit through enhanced capacity for creative thought, greater ecological self-awareness, and experiential ecocentric learning practices. Additionally, these principles support the “old growth” knowledges (Sheridan & Longboat, 2006, p. 366) inherent in the cultures of First Nations students, and, thus, work toward honouring these students and undoing white epistemological racism.

Fiction engages readers in important ways non-fiction cannot. Reading fiction triggers the imagination, allowing us to conceptualize simulations of the real world and thus neurobiologically *experience* alternate realities. Reading fiction *is* a form of experiential and holistic learning. It stimulates new ideas, emotions, and bodily sensations, such as hormonal, blood pressure, and heart rate changes. The neural pathways and connections involved in imagining closely mirror actual experience (Lillard, 2013), thus providing a kind of “practice run” for future actions and experiences. Functional MRI scans of readers show that both fiction and nonfiction reading prompt neurological behaviour associated with observation of real-time

events; however, fiction reading also prompts neurological activity associated with imagining future possibilities (Altmann et al., 2014).

Thus, ecocentric fiction enables students to both imagine *and* pseudo-experience new ways of being in the world. Mar and Oatley (2008) underscore this claim with their observations of the basic purpose of storytelling. They conclude that fiction functions like a kind of math, but whereas mathematical equations enable greater understanding of material reality, fictional narratives enable greater understanding of social realities. By extension, carefully chosen ecofiction also promotes greater understanding of ecological realities and students' ecological selves. That is, ecofiction prompts greater cosmological and environmental self-awareness.

When students read as a cohort and are guided by wild pedagogical principles, they also participate in communal imagination processes, which can be managed to promote cooperation, interdependency, and holism. Cognitively, readers tap into their own unique personal experiences when *mentalizing* a narrative—that is, when visualizing the sensory, social, and contextual aspects of a story. In a post-secondary context, student readers then share insights, questions, and observations with each other, thereby reassessing and refining their own mentalization of the narrative. They can then be encouraged to see themselves as collaborators in group imagination processes and to co-create a shared experience of the story. Benefiting from their own diverse backgrounds, participants co-imagine literary locales. Sharing neurocognitive experience and shaping group imagination builds community.

Of course, student discussions of fiction have as much potential to destroy peer communities as support them. Briefly, skillful guided discussion requires instructor honesty, as well as upfront and open discussion about 1) respectful listening, 2) the advantages of sharing diverse perspectives, 3) the right to err or change one's mind, and 4) the courage to be a "voice in the wild." Openly discussing these agreements builds trust and a feeling of mutual support before the first fiction discussion even arrives.

Collaborative discussions enable students to observe what *is* and collectively imagine what *could be*. Gosling and Case (2013) note that we need "social dreams" to confront and adapt to unthinkable environmental realities and possibilities (p. 705). They argue:

> Assuming the direst predictions of climate science are correct and the planet is, indeed, facing climate catastrophe, it becomes imperative for modern Western societies—and those peoples who aspire to emulate their lifestyles—to *imagine* this prospect. Such imaginings must be a prelude to any form of action taken to

> avert or prepare for the consequences ahead as humanity sits precariously on the edge of the abyss. (p. 706)

This assessment would seem to support the use of dystopian and apocalyptic fiction, which may 1) awaken students to discussions about the current realities and possible trajectories of environmental crisis, 2) allow stressed student readers an opportunity to experience and release pent-up emotion within the safety of make-believe realities, and 3) reassure students that the world is not currently in an apocalyptic state.

However, dystopian fiction, although popular with students and instructors of ecocriticism, poses a complicated starting point for diverse audiences and may heighten some students' anxieties and denials. Also, dystopian fiction may actually undermine efforts to mobilize students to protect environments. Schneider-Mayerson's survey of readers (2018) found that readers of dystopian fiction focused on "prepping" for apocalypse rather than being responsible ecological citizens or activists (p. 495). Schneider-Mayerson adds, "For many of these readers, we see evidence of the continuing individualization of environmental action and the emphasis on 'small and easy' actions" (p. 495).

For these reasons, I prefer to start with literature that is set in the recognizable world of *now*. Greater eco-awareness begins with students understanding how humans might relate differently to nature *now*. While the English literary canon is replete with examples of marginalized, misunderstood, and abused more-than-humans, some Indigenous novels, along with some newer settler literatures, immerse readers in rich and complex relationships with more-than-human characters. An abbreviated list of eco-novels might include the following: *Ceremony* (Silko, 1977); *Overstory* (Powers, 2018); and translated texts such as *The Blue Fox* (Sjón, 2003) and *Wolf Totem* (Rong, 2004).

Fiction's unique capacity to carry readers to similar emotional and cognitive spaces makes it an excellent starting point for classes with diverse student groups. As researchers note (Bal & Veltcamp, 2013; Mar et al., 2006), reading fiction activates empathy in ways that non-fiction does not. Empathetic engagement is key for shifting students out of the head-centred, hyper-individualized patterns of traditional Western thought and into relational orientations to the world. Together as a class and with the assistance of more-than-humans, they can create a shared community of ideas that is enhanced by divergent backgrounds in student populations and grounded in shared locale.

2.5. Listening to Crawdads Sing

An excellent ecocentric novel for these diverse student groups is Delia Owen's *Where the Crawdads Sing* (2018), which illustrates the possibilities inherent in a deep relationship with nature, ecocentric ways of learning, and more-than-human sovereignty. With skilled discussion facilitation and wild pedagogies-inspired activities, the novel can be used to invite readers to reconsider, deepen, and appreciate their own ecological relationships. At a time when so many students are lonely, homesick, and/or friendless, the novel acknowledges the emotional pain of social isolation while carrying readers into a realm of rich and rewarding ecological relationships. In other words, its emotional starting point is one that even culturally diverse student groups relate to and appreciate.

Owen's novel illustrates ways of relating to animals, plants, and water that are likely both new and familiar to students. The novel's protagonist is a girl and young woman through most of the novel. [Spoiler Alert.] Like any human, she has certain social needs, yet she is unable to meet them after being abandoned by her family and shunned by the local community. She lives alone from the age of 13 in a shack by a saltwater marsh in North Carolina. The novel shows readers a multitude of deep and enduring relationships the protagonist, Kya, maintains with the more-than-humans around her. Aching from being abandoned by her mother, young Kya finds a maternal bond with the marsh itself. Owens writes:

> Sometimes [Kya] heard night-sounds she didn't know or jumped from lightning too close, but whenever she stumbled, it was the land who caught her. Until at last, at some unclaimed moment, the heart-pain seeped away like water into sand. Still there, but deep. Kya laid her hand upon the breathing, wet earth, and the marsh became her mother. (p. 34)

The marsh takes on the role of her comforting protector while, later on, waves and mayflies offer more playful encounters. In her late teens, her sexuality blooms. When she has no human to explore this budding side of herself, she plays with the small, foaming waves rolling into the marsh; she lies on the sand and waits for the cool, delicious tickle of the waves to reach her bare legs. As gentle as a young lover, the waves flirt against her legs and thighs, helping her discover the edges of her developing body. Later, she dances in the moonlight with the mayflies, indulging in the romantic beauty of night.

In a life of abandonment and lost loved ones, seagulls, stars, and marsh water become her family, her most reliable friends, her confidantes, her closest allies, and her saviours in varied,

complex, spontaneous, and abiding ways. The local flock of seagulls and a curious red hawk pull her from a profound depression by reminding her she is not alone, she is not forgotten, she is connected to others, and she belongs. Students reading this novel can pseudo-experience these relationships too, perhaps relating them to their own experiences of nature or else imagining possible relationships. They can also share their real-life experiences in class and further expand the field of possible relationships for other students.

Additionally, the novel illustrates the wild pedagogies concept of nature as educator. Since the protagonist only attends school for a single—unsatisfying— day, the book viscerally decentres human educators. Nearly all of Kya's key life lessons are grounded in her observations and interactions with more-than-humans. For example, the protagonist watches a flock of turkeys attack one of their own after it becomes "different" (p. 90). She comprehends that group survival and conformity motivate this action. Later that day, when the local boys taunt her with the name "Marsh Girl," she readily recognizes the psychological underpinnings of their actions. Like the turkey flock, they too are fearful of "difference" and imagine it might taint them. Kya understands that the boys are functioning on instinct; their animosity is far less personal than it appears.

Readers also witness how a lesson from fireflies eventually saves Kya's life— if not her literal life, certainly the sanctity of her lifestyle. The female firefly uses deceptive courtship signals—flashing light—for self-preservation by luring a male firefly of different species into becoming her dinner. Later on, Kya enacts this knowledge at a human level when she sends false signals of availability to the man who intends to beat and rape her. Only through sacrificing his life in self-defence is she able to preserve her own.

The novel bears witness to the agency of many more-than-humans and gives them space on the page for voice, thus indirectly decentring the human. For example, through Kya's observations, readers understand how the sycamore tree assesses the seasons and subsequently adjusts itself to oncoming winter. Similarly, tides, seagulls, and others act on their own behalf in a far more active manner than more-than-humans in most other English language novels. The author, a zoologist by training, actively works to decolonize the more-than-human realm by giving space and voice to the more-than-humans, as well as by illustrating the intelligence, creativity, and agency of their cultures.

Furthermore, the novel shows readers how human knowledge can be mediated through and positively synthesized with more-than-human knowledges, creating robust, holistic knowledges. When some students first encounter the concept of ecocentrism, they mistakenly believe it to be anti-human. Owen's novel helpfully illustrates how human knowledges can positively support and are inexorably entwined with more-than-human knowledges. Kya's existence, unlike many of ours, does not reside on a binary of human and more-than-human. She lives an ecocentric lifestyle in which the human realm is simply part of a greater whole. Rather late in childhood, she learns how to read human words—long after she learns the tides, the patterns of clouds, and the flight paths of seabirds. She perceives words and sentences as "seeds" that are both "exposed" and "secret," and which have great power to grow (p. 113). Her newfound discovery of reading— and eventually, poetry writing—allows her greater depth of understanding about plants, animals, and air and their processes. In this way, a symbiosis of knowledges takes place since increased human knowledge eventually allows her to articulate, to other humans, needed protections for the marsh. Thus, the novel suggests the possibility of a positive interdependency between human writing skills and more-than-human ecologies—a provocative concept for literature students to explore.

Lastly, the novel embraces the wild pedagogies concept of the sensual, flourishing freedom of wildness. The title, *Where the Crawdads Sing*, hints that somewhere beyond the confines of the contemporary human world, the more-than-humans and even the humans can be truly free—and that this freedom may unleash hidden potentials, talents, and joys. This too is the message of the wild pedagogies movement: A movement toward wildness is a movement toward greater capacity to be one's full self instead of the partial-selves the "civilized world" sometimes demands (Jickling et al., 2018, p. 104). In essence, it is a call to protect and seek out inner (self) and outer (Nature) wilderness and wildness and recognize their intertwining.

Kya appreciates these nuances between confinement and freedom. The pretty girls from town are admired by the boys, unlike her, but they must also conform to outer standards of beauty and femininity. Under these constraints, they become slightly less beautiful, less capable, less talented, less authentic, and much less free. Boys are similarly shackled with conventions of manhood and normativity. One young man temporarily severs his love for Kya in order to fit in, causing himself enormous emotional pain. Even from a distance, Kya suffers from the human world. Yet, surrounded by the wild marshland, she has enviable freedom to simply *be* and to unfold into *becoming*.

2.6. Wild Pedagogy Activities for Sensory and Somatic English Lessons

Wild pedagogy experiences enable students to develop meaningful relationships with the more-than-humans. They also create spaces for more-than-humans to be active co-teachers within the field of ecocriticism. This shift occurs when the human instructor actively steps back to allow more-than-humans to communicate directly with students. In first and second-year English classes, students need not be told of the nature-as-co-teacher concept. In fact, it may be better not to raise confusing expectations and instead let experience lead the way. Happily, the richness of engaging with nature in this way cannot be predicted in advance. One day recently, I took an ecocritical class outside to the city college lawn, and—remarkably—twenty-two bald eagles circled over our heads.

When students have the opportunity to listen to the voices of the more-than-human world, they not only deepen their own ecological awareness, they are better positioned to engage in meaningful ecocritical analysis as well. The student who has learned to listen, who recognizes the agency, complexity, and fascination of the more-than-human realm, is better poised to discuss, for example, the way water stores memory in *Where the Crawdads Sing*. Conversely, a student who has remained indoors during their study may retain flat, two-dimensional notions of "tree," "fox," and "marsh."

What follows are three wild pedagogies activities that provide sensory and somatic engagement: sensory engagement; deep listening; and cosmology diary.

Sensory Engagement

This is a good starting point activity for students with diverse needs and ecological experiences. Students are asked to find some space of wildness to carefully observe each day for a week. Initially, students can just observe, without recording, for 20 minutes—a doable amount of time for typically overworked students. Given that most post-secondary institutions are established in cities, the "wild" space may be as simple as a patch of sky, a local community of crows, or the weeds at the edge of a park. This seemingly simple exercise might be enhanced by students' own ecological awareness, but it is specifically inclusive of students who may have had exceedingly little contact with wild nature. The primary goal of this initial activity is simply to turn toward the more-than-human world and away from the human one. Garrard (2012) notes that students "are

less able to detect and assess misrepresentations" of the more-than-human world "without direct experience of their originals" (p. 5).

Beyond enhancing critical reading capacity, this exercise also supports somatic learning—which is so often overlooked in English classrooms. We think differently and arrive at different ideas when the wind is blowing through our hair, the sunlight is patterning through the leaves, and parades of clouds are crossing overhead. Summarizing the work of multiple researchers, Atkins and Snyder (2018) explain that beauty, such as the natural beauty of the outdoors, offers "nourishment for the soul," inspires "serenity and exhilaration," and promotes "self-organization" through mathematical harmonies (p. 69). Thinking in the outdoors also promotes creativity by offering more complex visual stimuli (Sean Blenkinsop, 2019, personal communication) and allowing for the whole body, and not just the brain, to register and initiate ideas. Furthermore, because exposure to nature spaces—especially wild ones—can also enhance the immune system, reduce anxiety, and alleviate depression (Kuo, 2015), students may have greater access to cognitive resources.

Deep Listening

Building on the sensory engagement activity, students might be invited to partake in deep listening (Piersol, 2014). Students are asked to listen to a more-than-human—who is calling them?—to turn toward that entity with mindful listening. They might, for example, turn to the night stars, a tree on their street, a spider on the windowsill. This activity begins similarly to sensory engagement but with a progression that fosters relationship. Day 1— only listen. Listen to the communications occurring, for example, between stars and space, light and dark, solid matter and gas/dark matter. Consider dialogue and listening as multisensory processes. That is, dialogue can be auditory, tactile, chemical, visual, etc. Day 2 — listen and write down detailed observations, without judgements or anthropocentric characterizations. Day 3 — listen and try to answer the question, *What does this being want? Try to truly listen with empathy but without tainting with human projections.*

Cosmology Diary

A final step or activity to try with a more advanced ecocritical group is the development of a cosmology diary. Students are asked to keep a journal of their personal reflections on cosmology,

ecophilosophy, and developing ecological awareness. As much as possible, students should write outdoors; however, in extreme weather, they can witness the outdoors from an interior space.

They may be asked to address questions such as the following: *What is connected? What is disconnected? Does your life have meaning? How so? Or, why not? Does the life of the dandelion/bottle fly/snow next to you have meaning? How so? Or, why not? In what ways are you connected to the dandelion/bottle fly/snow? How do your purposes or existences intersect, intertwine, influence one another? Who is responsible for whom? Why?* Additional questions might include: *In what ways have you been domesticated or constrained? What is the wildness inside you that might "sing" if you were beyond the boundaries of the human realm? Describe the nature of your relationships with trees, animals, and weather. Who, in the more-than-human world, has taught you and what was the lesson*? This is a fluid list of ideas and certainly each instructor can tailor their questions to specific locales, cultural contexts, and student needs. Students can then be asked to share their answers in groups.

2.7. Conclusion: Preparing for the Unknown

Bringing wild pedagogies concepts to ecocriticism can offer a holistic, ecocentric alternative to status quo models of learning that inadvertently reinforce toxic anthropocentric behaviour. This pedagogical pairing also supports vastly divergent student experiences of the environment. Indigenous students may feel an increased sense of belonging and support for their traditional ways of knowing. The student who has felt "hopeless" may find joy and renewal, while the environmentally-unaware student may be gently turned toward the more-than-human realm. The students experiencing solastalgia (longing for lost environments) develop new relationships with new locales, while many students become aware of the colonization of nature's spaces. These activities develop ecological self-awareness and a shift away from institutionalized anthropocentrism, and they normalize the sovereignty of the more-than-human realm.

Ecofiction launches students into imaginative experience—with one eye on the observable realities of our world and one on possible futures. With well-chosen ecofiction, this imaginative pseudo-experience can enable students to adapt to a rapidly shifting world. To understand, better prepare for, and hopefully slow down destructive changes in the environment, young adults need to learn how to listen deeply and value more-than-human agency.

The activities outlined above also allow students to turn more toward each other and, thereby, build communities of new knowledge and shared vision. With skilled facilitation, they can recognize that differences—whether in ecosystems or groups of students—can be mutually supportive and strengthening. Through their shared and co-created experience of story, students become more relationally oriented, and foster individual and group resilience. Although the wild pedagogy-ecocriticism pairing is guided by environmental priorities, research suggests student mental health and physical well-being will likely benefit from increased outdoor time too (e.g., Kuo, 2015; Narvaez, 2014; Roszak, 1992).

Future research might question how the structure, organization, and design of writing can be guided by "ecological principles" (Englehardt & Schraffenberger, 2015, p. 473). Traditional English essays are largely structured for reader efficiency, to allow for skimming and quick consumption. But, from an ecological perspective, efficiency and consumption are problematic features. Investigations into new compositional styles might look to Tsing's book chapters, blooming like "flushes of mushrooms" (Tsing, 2015, p. viii), Kimmerer's stories, woven like sweetgrass (Kimmerer, 2013), and Powers's old growth interdependencies (*Overstory*, 2018).

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Chapter 3.

Imagining Love: Teen Romance Novels and American Teen Relational Capacity

Preface to Chapter 3

Where the previous chapter illustrated pedagogical strategies for addressing the problems of climate crisis, this chapter illustrates a strategy for addressing the problems of contemporary love and reduced relational capacity. This chapter lays important groundwork in understanding the wounds of love experienced by young people today. It also delves farther into the neurological, biological, and psychological aspects of reading fiction, which can later be applied to pedagogical practices of ecocritical storytelling.

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3.1. Abstract

Psychologists and social critics have sounded the alarm that the relational capacity of American youth is decreasing with each generation because of unsupportive cultural practices. However, relational capacity hampered in early childhood, may be fostered by relationally-focused literature in later childhood. Teen romance novels engage readers in relational processes and potentially advance relational capacity through the biopsychosocial processes of reading. The imaginative work that occurs while reading literature stimulates intellectual, and psychological

processes potentially priming youth for actual experience. In this way, teen novels may enable teen readers to imagine possible future selves. Vygotsky emphasized that learning occurs within and because of the relational space between individuals and their sociocultural environment. He asserted that cultural tools— such as books—assist in mediating that space.

Using general theories of attachment, this chapter explains how the novels, *The Fault in Our Stars* (2012) and *Aristotle and Dante Discover the Secrets of the Universe* (2012), draw teen readers into a potent shared space wherein love is defined, witnessed, and imaginatively experienced. However, another teen romance, *Always and Forever, Lara Jean* (2017) amplifies reader anxiety by prioritizing materialistic and extrinsic values, providing illogical trajectories for love, and rewarding its protagonist for manipulative behavior.

Keywords Love · Teen romance · Relational capacity · North American youth · Literature · Reading process

Despite immense popularity, the genre of romance fiction evokes divisive reactions in academic and public spheres. Some psychologists, for example, call the genre an “enabling fiction” (Barreca, 2012) that “portray[s] idealized love” and has been designed for those who wish “to avoid having to face the cracks in the façade of their false sense of security” (np). Susan Quilliam (2011), a psychologist and relationship therapist, suggests that a “deep strand of perfectionism, escapism, and idealisation runs through the genre” (p. 180), which undermines healthy values and relationship expectations. On the other hand, Janice Radway (1984) argued that romance fiction offers important social benefits, such as providing emotional nurturance to female readers who receive little emotional nourishment from real-life husbands and children. Tania Modleski (1984) has furthered this idea by suggesting that romance fiction “not only fulfill[s] wishes but also allay[s] fears and anxieties, clear[s] up confusion, and provide[s] outlets for women’s repressed rage at their subordination” (p. xvii). Sarah Frantz Lyons (2015) concludes that “we need new approaches to romance fiction” since the fundamental stances of these debates have remained essentially unchanged during the genre’s 250-year timeline (np).

This paper answers the call for a new approach to the genre by examining the biopsychosocial experience of reading in relation to the patterns of messages in three teen romance novels. Reading engages individuals in overlapping neurological, biological, psychological, and cultural experiences. These experiences occur within and because of the

relational spaces cocreated by authors and readers. Vadeboncoeur (2017) explains that Vygotsky's "general genetic law of cultural development" posits "the idea that the development of mind is a social process and that the social and cultural practices that a child is mentored into, as well as the meaning the child constructs of participation in these practices, form the foundation for individual consciousness" (p. 15). For all of us, but for young people in particular whose identities are at a crucial developmental stage, reading fiction is a process of shared imagining about being and becoming. Fundamentally, reading fiction engages readers in notions of possibility.

This paper asks: What biopsychosocial imaginings are stimulated by reading romance and how might those stimulations develop or thwart relational capacity? Radway (1984) rightly argued that critical investigation of romance fiction "must shift from the text itself, taken in isolation, to the complex social event of reading" (p. 8). Here, I shift the investigation of literature from the page to the shared spaces of the reader's body, the novel, and the cultural environment.

3.2. Teen Relational Capacity is Decreasing

Psychologists (Twenge, Joiner, Rogers, & Martin, 2018; Gerhardt, 2004, 2010; Narvaez, 2014) and social critics (Maté, 2015; Verny, 2002) have been sounding the alarm that the relational capacity of youth in the dominant North American culture is increasingly atrophying because of a wide range of unsupportive cultural practices. Contemporary North Americans are experiencing unprecedented levels of social disconnection (Gerhardt, 2010; Maté, 2015; Turkle, 2011; Verny, 2002; Zimbardo, 2011), evidenced in high levels of loneliness (Cacioppo & Patrick, 2008) and social awkwardness (Twenge, 2000; Zimbardo, 2011) and in falling levels of empathy, trust, and quality friendships (Gerhardt, 2010; Konrath, O'Brien & Hsing, 2011; Turkle, 2011; Zimbardo, 2011). Narvaez (2014) argues that on a neurobiological level, the relational capacity of American children has become increasingly underdeveloped from one generation to the next due to childrearing norms that overemphasize independence. Twenge et al. (2018) have suggested that burgeoning social media use may be thwarting the kinds of social interactions necessary for sound emotional wellbeing. While psychologists continue to evaluate the causes of relational disfunction, other researchers search for solutions. Because reading romance fiction draws readers into relational processes and relational topics, it likely impacts relational capacity.

3.3. The Experience of Reading

Stories serve an important social purpose. People on every continent and throughout time have told stories. Humans are hardwired to tune in to stories. And, as evolutionary scientists will point out, no trait—whether physical or social—persists with tenacity in a species unless it benefits survival. Thus, the individual's development within the relational space of a story exists within the wider context of the collective cultural imagination and evolutionary process. From a Vygotskian perspective, stories are cultural tools which develop social futures.

Mar and Oatley (2008) compare the function of stories to that of math. They explain that mathematical equations provide a simplified formula that "enables a mode of thinking about the physical world that is both more abstract and more generalizable than intuitive everyday thinking" (p. 175). Equations, they clarify, can be creatively applied to the world to broaden understanding, enable predictions, and improve strategies within in the physical realm. Reality offers us thousands of sensory data points every second. Stories, like mathematical equations, express a pared-down, simplified version of reality. These stories then offer a template that can clarify general principles about life and human experiences (Mar & Oatley, 2008, p. 175). Similar to the function of math, they enable us to make predictions about human behavior and show us ways to reach complex social goals. Thus, those who read are better able to conceptualize social worlds in general, their actual and potential roles within them, and to think creatively about their relationships. As Greene (2000) explained, "Having accepted 'unreality,' we can turn back to the variegated social realities we share and, perhaps, find them enhanced, expanded, corrigible" (p. 187).

Stories impact beingness and identity formation in potentially transformative ways. As Ursula Le Guin (1977) articulates:

> As you read a book word by word and page by page, you participate in its creation, just as a cellist playing a Bach suite participates, note by note, in the creation, the coming-to-be, the existence, of the music. And, as you read and re-read, the book of course participates in the creation of you, your thoughts and feelings, the size and temper of your soul. (p. 127)

Cognitive scientists and literary theorists are still determining the ways books participate in this "creation of you." Mar, Oatley, Djikic, and Mullin (2011) assert, "Novels can act as a powerful emotional prime and once an emotional state has been induced we would expect to see differences in cognitive processing associated with this new emotional state" (p. 829).

Nearly every reader has had the experience of being transported by reading fiction, and of having our mood and our worldview change as a result. Indeed, this is the role of fiction: to change us. We enter into a novel with a willingness—a hope—to be altered by its contents, to have hearts lifted, to be stimulated, to feel the comfort of being understood, or to be exposed to new ideas. Whereas nonfiction engages us in *what is*, fiction draws us into the realm of *what is possible*.

This realm of the possible is experienced both imaginatively and physically as reading fiction triggers both cognitive and physiological processes. Heart rates rise in response to suspense or relax in response to comfort. Hormones associated with anxiety (cortisol), social bonding (oxytocin), and physical arousal (testosterone, estrogen) may increase or decrease in response to the book's events. Cognition too is physical. Preliminary studies suggest reading fiction stimulates the formation and dissolution of "assemblies of neurons, establishing patterns that through repeated firing become our habitual ways of engaging the world" (Armstrong, 2013, p. X). In other words, the reading experience neurologically primes us for particular experiences of the world. This neurological process partly results from "mentalizing" (Oatley, Dunbar & Budlemann, 2018, p. 121), a process which requires readers to create mental pictures of people, places, and events in a story. Reading also requires one to imagine how characters feel and think and to predict their actions. Unsurprisingly then, readers of fiction have increased levels of empathy (Bal & Veltkamp, 2013), which forms the foundation for positive social connection.

Reading fiction also prompts sensory-imaginative experience. Paivio (2008) explains, "Deep (meaningful) comprehension during reading entails activation of visual, auditory, haptic, and motor neural images, movements, or verbal association. The meanings can include affective reactions associated with memory images of emotional events" (p. 103). To put it another way, when we read fiction, we use our own experiences and memories to help us *stretch* to imagine characters' experiences. In this way, reading fiction engages young people in the zone of proximal development (ZPD). In this situation, the ZPD is the space where reader imagination, author imagination, and reader identity meaningfully comingle, expanding young readers' fields of social knowing beyond what they could achieve on their own.

3.4. Reading Love

For multiple reasons, reading high quality, fictional stories about love can potentially enhance relational capacity (Mar, Oatley, Hirsh, dela Paz, & Peterson, 2006). Firstly, love stories are one of the most common story themes worldwide (Hogan, 2003), and immersion in any subject enhances understanding about that subject. Lillard (2013) notes that on a neurological level, imagined experience closely mirrors actual experience. Secondly, the process of mentalizing requires readers to activate empathy; that is, readers must imagine the feelings, thoughts, and experiences of characters in order to make predictions. Indeed, much of the joy of reading involves making predictions about what will happen next. We cannot attempt these predictions without sympathizing or empathizing with characters—and empathy constitutes a centrepiece of social skills. Thirdly, reading fiction evokes emotion (Mar et al., 2011) which contributes to the awareness and management of emotion. Fourthly, fictional love stories expand our knowledge of the possible actions, reactions, and experiences available within the realm of love. Lastly, all the above aspects of fiction reading have a neurobiological basis. Meaning, they cause the repeated firing of neural networks, and as the field of neuroplasticity has illuminated, neurons that fire together, wire together (Hebb as cited in Doidge, 2007). In sum, fictional love stories activate empathy, promote emotional self-awareness, immerse readers in the topic of love, and create neurological pathways linked to love experience.

Of course, reading fiction isn't the same as experiencing social situations in real life. Indeed, researchers have identified nuanced but important differences (Nichols, 2006; Galgut, 2014). Even those researchers who argue that storytelling plays an important social role (Mar et al., 2011) acknowledge that the cognitive process of imagining social moments does not equate exactly to the cognitive process of lived social experience. However, the biological experience of reading stories does not need to mirror real life absolutely to foster relational capacity. After all, knowing the mathematical equations required for launching an aircraft is not the same as launching one. Yet, learning about the social possibilities of love through reading fiction can foster crucial neurological capacity from which to launch actual love experiences.

If fictional love stories potentially alter us cognitively, imaginatively, and neurobiologically, we shouldn't assume those changes are automatically positive. Greene (2000) reminds us that culture "may give rise to tastes, values, even prejudices" (p. 163). Novels within the romance genre—as within any genre— vary significantly in style, content, theme, and quality. The criticism that the genre presents an overly-idealized and narrow view of love is quite

justified—in the case of some romance novels. Thus, a rough framework for assessing romance quality is required. Clearly quality romance fiction should generally promote prosocial behaviour and healthy emotional attachment. Bowlby's theory of attachment (e.g. Levine & Heller, 2010) provides a helpful starting point. Quality love stories should draw readers into an emotional space that ultimately increases feelings of secure rather than anxious or detached attachment. Using this rough framework, this chapter explains how two teen novels are likely to positively enhance actual love possibilities, while a third novel is likely to reduce them.

3.5. Teen Romance Novels and the Fostering of Love

Critics of romance fiction argue that the genre presents a 'cookie cutter' version of love that narrows, rather than expands, real-world love potentials. They suggest that this genre overly idealizes love by concocting fairy tales and tiptoeing around the muddy complexity of actual love stories. Real life love stories are woven with disappointments, less-than-heroic acts, boredom, and liberating variances from able-bodied, heteronormative expectations. To find emotional security within real-life love stories, individuals must understand that navigation of these features is possible. High quality romance novels illustrate pathways for overcoming challenges and/or for transgressing restrictive social norms.

Thus, the starting point for high quality romance stories is that they must engage realistically flawed characters in real-world obstacles. Since boring literature reduces empathy (Bal & Veltkamp, 2013), high quality romance must contain the kind of sensory detail and emotional resonance that deeply engages readers in imaginative and transportive experiences. Quality love stories are not one-size-fits all, but unique to specific personalities, circumstances, time periods, and sociocultural conditions. For romance novels to function as a social tool in the development of love—rather than an object merely *branded* with love—they need to illustrate the *actions and emotions of love*. In other words, it is not enough for characters to simply pronounce that they "love" someone; the story must illustrate the feelings and gestures of genuine love, such as: kindness, generosity of spirit, devotion, forgiveness, and willingness to overlook character flaws and moments of ugliness and weakness. By illustrating the actions of love, high quality teen romance novels actively define and extend the possibilities of love for young readers.

John Green's *The Fault in Our Stars* (2012) offers a compelling example of high quality teen romance, though it arguable straddles the genres of 'literature' and 'romance.' Set in an ordinary, contemporary American city, Indianapolis, the novel begins with depressed, socially-isolated, 17-year-old Hazel. These initial contexts are familiar and recognizable to most contemporary, American teens; even if they themselves are not depressed and socially isolated, they surely know someone who is. This initial familiarity quickly diverts into more gripping and suspenseful context. (Spoiler alert.) The two main characters, Hazel and Augustus, meet at a cancer support group for youth. This novel does not contain fluffy, superficial romance or childish, make-believe love. Love here carries the emotional weight and physical nastiness of cancer from start to end. Hazel, the protagonist, cannot be separated from her oxygen tank. Augustus's leg has been amputated.

Readers watch Hazel and Augustus navigate the real possibility that she might die, underscored by her bouts of depression, occasional emotional distancing, and persistent skepticism about her desirability. She makes reference to her own corpse (p. 118) and he wears his death outfit—the suit he will be buried in—on a date (p. 167). They are not deterred by the physical realities of each other no matter how disqualifying they might seem to themselves. Before their first and last act of love-making, she describes:

> We were lying on our backs next to each other, everything hidden by the covers, and after a second I reached over for his thigh and let my hand trail downward to the stump, the thick scarred skin. I held the stump for a second. He flinched. (p. 207)

He flinches, but she doesn't. Readers see that she has already accepted these flaws in his physicality and loves him regardless. Reader and characters shift together from discomfort and inhibition to acceptance and the continuation of love. From the rapidly matured perspective of a teen cancer patient, Hazel understands and readily accepts that love—like life—is an imperfect affair. Augustus is more likeable to her because he understands suffering—her suffering—and he is made wiser because of his own. Although most of the story, Hazel and Augustus focus on her mortality, his cancer returns and rapidly deteriorates body and mind. At one point, Hazel describes:

> I found him mumbling in a language of his own creation. He'd pissed the bed. It was awful. I couldn't even look, really. I just shouted for his parents and they came down, and I went upstairs while they cleaned him up. (p. 239)

When Hazel calls the scene “awful,” she is not just commenting on an aversion to “piss” and delirium. She is acknowledging his torment, the humiliation he will surely feel later, and the horror of seeing him slip closer and closer to death’s door.

Readers witness the actions of love in this story. In their daily interactions, Hazel and Augustus share inside-jokes, secret words, phrases, and codes that are special to them alone (e.g. p. 208, 210, 231). They actively create special shared moments, such as sipping champagne out of plastic cups and holding a living eulogy for him. Hazel stays by Augustus’s side when he unglamorously blurts that he hates himself (p. 245) and, more significantly, when he vomits on himself in a car and when he deteriorates in hospital prior to his death. They feel a deep connection that transcends their frequent inability to physically be together. Love endures. Love survives even his death because he is gone, but *their* love continues. She continues to love him and feel his love for her. In a moment imbued with memory, shared jokes, and forgiveness, she tucks cigarettes into the coffin holding his corpse and whispers, “You can light these ... I won’t mind” (p. 270). Her greatest act of love is her eventual willingness to let him go. Despite the overwhelming emotional devastation his death brings her, she is willing to suffer and still go on loving him.

Like Hazel and Augustus, the main characters in Benjamin Alire Sáenz’s young adult novel, *Aristotle and Dante Discover the Secrets of the Universe* (2012), also overcome profound obstacles to love. Readers learn that Dante is a gay teen living in Texas, deeply in love with his best friend, Ari, who is “not the same” (p. 151). Quiet, reserved Ari does not *want* to be gay. But this desire and other desires are at odds. In stories, as in life, sudden events can cause the truth to pierce through accepted realities. When Dante is about to be struck by a car, Ari hears “screams” (p. 107) from inside himself and launches into the street. His heroism saves Dante’s life, but Ari breaks both legs and an arm in the process. The moment is a turning point, but a slow-moving one; readers journey with Ari over the course of a year as he finally overcomes the societal impediments to love and accepts what his parents, Dante’s parents, and perhaps even Dante have suspected: He is in love with Dante.

Saving Dante’s life is one of many actions that enact love. The novel demonstrates how personality differences can complement one another—with one character talkative, expressive, emotional, and the other a good listener, restrained, emotionally subdued. Ari is in real pain after enduring surgeries and casts from his car accident, yet he later comforts sobbing Dante after Dante is beaten up for being gay. Meanwhile, Ari feels fully seen by Dante—recognized for his

true nature. He reveals, “somehow it felt like it was Dante who had saved my life and not the other way around” (p. 308). Ari opens up to Dante and reveals parts of himself he has been too afraid to talk to anyone about except his mother (p. 308). In this way, the novel frames two kinds of courage: physical courage and emotional courage.

The two also experience deeply sensory (sensual) moments together that are important in engaging readers in transporting experiences. Before the car accident, the two share a moment of vivid, sensual play: “We ran around the truck, naked and laughing, the rain beating against our bodies” (p. 273). With intimate clarity, Ari recalls, “I stretched my arms out toward the sky. And closed my eyes. Dante was standing next to me. I could feel his breath” (p. 273). Later, when Ari is at home recovering from the car accident, Dante gives him a sponge bath. Ari vividly notes, “I felt Dante’s hands on my shoulders, the warm water, the soap, the washcloth. Dante’s hands were bigger than my mother’s. And softer. He was slow, methodical, careful. He made me feel as fragile as porcelain” (p. 144).

Not only do these two novels enable teen readers to envision ways beyond horrific obstacles and witness the actions of love, they also help *define* love. Love inhabits paradox; it is always ever-changing and constant, unique and universal. Young people reading these books may have had few opportunities to hear the words of love, the descriptions of love, and the definitions of love’s emotions. Ari explains, “Even though we hadn’t wanted that kiss to be a big thing, it had been a big thing. It took a while for the ghost of that kiss to disappear” (p. 258). Love lingers. Upon realizing she is falling in love, Hazel describes, “It felt like everything was rising up in me, like I was drowning in this weirdly painful joy” (p. 154). Love can feel frighteningly powerful. Courageously, Augustus announces his love to Hazel:

> I’m in love with you, and I’m not in the business of denying myself the simple pleasure of saying true things. I’m in love with you, and I know that love is just a shout into the void, and that oblivion is inevitable, and that we’re all doomed and that there will come a day when all our labor has been returned to dust, and I know the sun will swallow the only earth we’ll ever have, and I’m in love with you. (p. 153)

Love is always an act of courage. And as Augustus’s words convey, love matters most. In the shared space between novel and reader, teens engage in the work of imagining how for Augustus and Hazel, and Ari and Dante, love overcomes all obstacles. This experiential witnessing builds emotional security and shows teen readers how one might love despite seemingly impossible barriers.

3.6. Teen Romance Novels and the Thwarting of Love

Importantly, not all teen romance is worthy of recommendation. Some teen romance novels may have the power to shrink as much as expand teen relational capacity. A poor quality romance novel directly and/or indirectly emphasizes problematic values. Characters may openly express desire for constricting gender norms, for example. More subtly, the novel may draw repeated attention to particular kinds of objects, thereby elevating their value. It matters whether a novel highlights the familiar objects of 'home' versus the exterior appearance of a house, whether it promotes relationships with trees and sunlight, or with boob enhancements and soda. Functioning as a cultural tool, a novel normalizes situations, priorities, and values. Poor quality teen romance will also animate unoriginal or shallow characters who will do little to touch the deeper concerns, insecurities, and realities of its readers. That is, instead of illuminating pathways to overcome obstacles to love, "love" may be unearned and thus inexplicable. The story may be *branded* as a love story because of the cover art and because words like "love" and "boyfriend" and "kiss" appear with regularity. Yet the actions of love—acts of devotion, selflessness, forgiveness, acceptance, generosity—may be wholly lacking or entirely dependent on the reader's imagination. Lastly, poor quality teen romance does not expand relational awareness by providing meaningful definitions of love which teens can identify with and learn from.

Jenny Han's novel, *Always and Forever, Lara Jean* (2017), may be precisely what critics of romance have in mind when they suggest the genre harms real-life love opportunities. This book is the last in a trilogy about Lara Jean, and as such, higher quality love may or may not exist in the earlier two novels. However, authors know that novels in a series must be designed to also stand alone since readers often don't start at the beginning. Thus, this analysis assesses the novel for its own merits, rather than the broader context of the series. The American protagonist of supposedly Asian descent, Lara Jean, is in a relationship with Peter from the beginning to the end of the novel, with a brief break-up comprising part of the book's climax. Although promoted as a love story, the primary angst in this novel centres around Lara Jean's failure to be accepted into her first choice university. To her utter devastation, she is instead accepted in her second-choice university, a higher ranking school.

Han's novel begins with surface appearances. In the opening lines of the first page, Lara Jean admires her boyfriend, Peter, because of the innocent appearance of his sleeping face: "his jaw, the curve of his cheekbone," and what she vaguely refers to as "a certain kind of niceness" (p. 1). Peter evidences genuine devotion to Lara Jean through small and large gestures throughout

the novel. At her request, he dies his hair and, on another occasion, sings part of a song. He even offers to switch universities to be closer to her. But these actions do little or nothing to increase her attraction, admiration, or appreciation of him. Instead, she rests her head on his shoulder when thinking about how "handsome" he is (p. 27). She looks at his profile and comments that she "likes how smooth" he is (p. 139). She loves "the smell of his detergent, his soap, everything" (p. 235). Thus, readers may note that his physical appearance inspires her feelings in a way that his kindness and devotion do not.

Her "love" is also enhanced by their many kisses, which he performs with directness and aggression—stereotypical characteristics of masculinity. Peter "pulls [her] face closer to him" (p. 29), he "pulls [her] toward him, and kisses [her], all in one fast motion" (p. 3), and he "surges up and kisses [her] harder" (p. 238). At one point, harbouring hurt feelings by one of her callous comments, he "plants a chaste peck" on her forehead (p. 45). Her eyes "fly open," and she snaps, "That's all I get?" In doing so, she holds him to her expectations of direct, aggressive passion. These passages clarify that her feelings toward him are predominantly connected to physical passion and his external appearance.

In a similarly disturbing vein, one of the qualities Lara Jean likes best about Peter is the feeling of owning and manipulating him. She admits to being "covetous" of him, noting, "I want his eyes only on me; I want to talk only to him, to be just him and me for this little while longer" (p. 323). When Peter submits to her bizarre desire that he ask her to prom twice, she muses, "And grumbling, he does it, in front of everybody, which is how I know he is utterly and completely mine" (p. 55). When Peter asks if she can bring some of her delicious cookies to school the next day, she responds, "We'll see," because she "want[s] to see him make that pouty face [she] loves so much" (p. 21). After Peter does "two romantic things in a row," she figures she "should praise him accordingly" because like a dog, "the boy responds well to positive reinforcement" (p. 58). By caressing his hair and asking sweetly, she manipulates him into dying his hair for the Halloween party so his costume will better match hers. When she's upset with him, he "keeps texting" her, but she is "petty enough to be glad he's not enjoying himself anymore," and she "make[s] him wait longer" before she texts him back (p. 216).

In a psychologically healthy love relationship, these selfish and immature attempts to control would be put in check. The protagonist would be made to reconcile, heal, and make amends for these illustrations of insecure attachment. But here, Han does the opposite; Lara Jean celebrates her manipulations. Giddily, she claps her hands "in delight," and reflects, "Is there

anything more intoxicating than making a boy bend to your will?" (p. 188). Notably, Lara Jean reduces Peter to the blank identity of "boy" in two of these moments. His personal identity has been erased; what matters is not *Peter*, but his identity as a *boy*. Near the end of the book, after Lara Jean has been experienced a degree of grief and anxiety, she articulates her desire for control stripped of pomp; she tells Peter simply, "I want you to do what you're supposed to do and I want to do what I'm supposed to do" (p. 300).

What *are* they "supposed" to do? The framework of "supposed to" may be disconcertingly unclear to the reader, but it guides most of the protagonist's actions. She lauds perfection and extrinsic goals. She is "on a quest to perfect [her] chocolate chip cookie recipe" (p. 20). She is "ready to throw out" an entire batch "for not being perfect" (p. 20, 21). Her first choice university has the "perfect storybook campus, the perfect everything" (p. 10). This focus on the "perfect" shifts the character and reader's gaze to externalities. She bubbles, "I think couples costumes might be my favourite part of being in a couple" (p. 37). One can reasonably question the depth and meaning of her relationship if once-a-year dress-up constitutes the best part. Maintaining the focus on externalities, she laments to Peter, "It's too bad we don't have a meet-cute" (p. 21). Her regret stems from her inclination to craft the perfect love story. Felt realities matter less than outward appearances, even if the latter are artificial constructs. In a discussion about going off to different universities, she scolds her friend, "The least you can do is *pretend* you'll miss me!" (emphasis mine, p. 46).

The climax of the novel does force Lara Jean to adjust notions of perfection. Although she is eventually accepted into her first-choice university after all, she briefly grapples with the disappointment of attending her second-choice university. Despite her consistent lack of kindness toward Peter, he remains devoted to her and the novel concludes with the implication that the two will marry. But even this seemingly extraordinary and joyful moment carries some disappointment for her. To her, the perfectly-crafted love story involves older characters. She believes 27 "sounds like" a right age to meet, fall in love, and marry whereas she is only 18 (p. 323).

Why Peter *wants* to marry her remains a mystery, although it could be that author, like protagonist, is busily crafting an outwardly 'perfect' love story. Many of Lara Jean's acts of love, can most generously be interpreted as deeply immature. More worryingly, they may evidence a serious attachment disorder or even psychopathology. In addition to her manipulations, Lara Jean regularly insults and physically pushes Peter. With little or no provocation, she gives him "a dirty

look" (p. 224). She insults the smell of his feet, admitting privately that she loves "the way he smells after a lacrosse game" but she "love[s] to tease, to see that unsure look cross his face for just half a beat" (p. 40). When he says he could grow a beard, she remarks, "No, you can't. But maybe one day, when you're a man" (p. 139). When he protests, she ridicules him, "You don't even pack your own lunches. Do you even know how to do laundry?" (p. 140). Although a psychologist may recognize the anxious attachment style in her behaviour, she is aware that she is "testing him" but does not know why. Later, she snaps that he is "being unfair" when he astutely notices her ambivalence that they will soon be living in different places (p. 282). Gesturing to normative models of masculinity where men are expected to exhibit only confidence, she tells him pointedly, "You acted like a jerk tonight. Insecurity is not a good look on you, Peter" (p. 273).

Reminiscent of a preteen, rather than the 18-year-old, she yells and "shove[s] him in the chest" for hinting about their French kiss in front of Lara Jean's sister (p. 43). Lara Jean disparages him, "you're not *that* good at French kissing" (p. 43). Later, the two are counting how many people she has kissed, and she shoves him again when he claims one of her kisses didn't count because she "technically cheated on" him (p. 44). Soon after, he suggests that they practice their own kiss. She reports, "I run back to his car, I pull him toward me by his shirt, and angle my face against his—and then I push him away and run backward, laughing" (p. 46). She also "pushes him away" for kissing her in a pool because "there are kids around!" (p. 187). Like her manipulations and penchant for extrinsic rewards, the protagonist is never made to confront these minor physical confrontations nor to recognize that perhaps she should not push, shove, and insult the man she claims to love.

For Lara Jean, love is all about surfaces and outward appearances. Although her and Peter do have some tender moments of tickling, kissing, and giving gifts, and she does eventually apologize when she figures out from his facial expression that she devastated him, these more tender moments are vastly overshadowed by her efforts to control him and their "love" story. In the crafting of this novel, these character flaws are not obstacles to overcome, but celebrated quirks of character. The success of their "love" story is not in their ability to grow as characters, but in her luck at having landed a boyfriend who doesn't challenge her emotionally unhealthy reactions. Essentially, the story develops outwardly through plot developments, but not inwardly through character development.

These direct messages prioritizing externalities are underscored by the persistent attention drawn to material objects and consumerism. Many lines of text are devoted to boob jobs, dresses, and cookies. The teen protagonist is remarkably familiar with the lingo of wedding ring designs. When she is just about to lose her virginity to Peter, she leaps out of bed to go change out of her "normal every day cappuccino-colored bra" and into her "special bra," thereby destroying the moment and thwarting the event (p. 280).

More concerning than these arguably typical consumer tendencies are the repeated instances of brand name identification. Characters read *Teen Vogue*, drink Vitaminwater, and eat at Starbucks and Applebee's. "Fresca," one character describes, is a "delicious grapefruit soda. Zero calories! You have to try it!" (p. 88). When the character does try it, she smiles, agreeing that it is "Very refreshing" (p. 89). Lara Jean's kind and soon-to-be stepmother "loves" Fresca (p. 91), so Lara Jean buys "a case" whenever she goes to the store, adding, "It's actually very refreshing" (p. 91). Can these repeated messages be interpreted as anything other than product placement?

One may wonder just how many teens can relate to this consumerist tale of manipulative love. Yet the book has received four and half stars out of 545 reviews on Amazon.com and is soon going to be made into a movie. As authors know, the success of a book is as much about marketing as about content. Though it's unknown whether Han received endorsements for product placement, it is known that some books that are written with consumerist goals in mind, promote consumerism within their pages, are funded by consumer industries, and thus, fan the flames of consumerism for their readers. Books such as these are not designed to enable readers to navigate complex social worlds; they are deliberately or unwittingly designed to promote consumerism. These books do not offer hope to lovelorn youth. Rather, they pick at and exacerbate low-grade insecurities about attractiveness, success, and luck, for example. Content, hopeful, intrinsically-motivated teen readers do not make good future consumers.

3.7. Conclusion

Teen romance novels meaningfully impact teen relational capacity. Many of today's North American teens lack role models for enduring, deep, and genuine love— whether romantic, platonic, or familial. They suffer unprecedented levels of anxiety, depression, and loneliness.

Having underdeveloped critical thinking skills, young readers are particularly susceptible to the overt and covert messaging of novels. The teenage years present the height of identity formation and its twin: insecurity about belonging. Where most adults discard a novel if its values uncomfortably differ from their own, many teen readers do not yet have the self-awareness. Consequently, they may linger longer in novels that cause discomforting gaps between their (still developing) value systems and identities and those presented by the novel. They may wrongly interpret this discomfort as a failure on their part to 'fit in' and 'be part of' the social world around them. If they already feel disconnected socially, they may see the novel as offering an explanation why, as identifying the values that need to shift if they want to belong. Thus, reading low-quality romance novels might be damaging mentally, emotionally, and socially for teens.

Low quality love stories may magnify teen insecurities and isolation and—with a sleight of hand—offer materialistic and other questionable solutions to their angst. *Always and Forever, Lara Jean* evidences a shallow, materialistic, and manipulative teen protagonist whose bad behavior is ultimately rewarded by hints of marriage. Some young readers may be mature enough to accurately identify the attachment issues and materialistic values of this book. Nonetheless, this story likely thwarts relational capacity of its teen readers by provoking perfectionist anxieties and failing to illustrate the prosocial actions of love.

Since reading requires active daydreaming, high-quality romance novels can provide neurobiological experiences of love that may establish cognitive frameworks for teens to understand and, thus, foster meaningful love in their own lives. *The Fault in Our Stars* and *Aristotle and Dante Discover the Secrets of the Universe* show young readers that they can overcome even the most egregious obstacles to love. These novels illustrate that true love is profoundly accepting, generous, kind, and enduring. True love requires authenticity, courage, and action.

Research on the neurological processes involved with reading is still in early stages. Aubry (2011) suggests that contemporary Americans use fiction as a form of therapy or a place from which to gleam life advice, rather than as an aesthetic experience (1). He writes, "They choose books that will offer strategies for confronting, understanding, and managing their personal problems" (1). He coins this "pejorative" category of mostly middle-brow literature: "contemporary therapeutic fiction" (1). It is possible that some readers—or readers some of the time— achieve a feeling of social satisfaction from reading that reduces the need for real world

social contact. More research is needed to determine the point at which the expansiveness of imagining turns into demotivating satiation.

Novels are, in themselves, creating relationship. Meaning, an author is writing for an audience. That audience is tuned in to the author. Together the two create something that may not be completely mirrored by any other reader-novel combination. Just as quality romance fiction resists pressing romantic love stories into flat, predictable shapes, romance fiction develops a unique relationship with individual readers and should encourage development of individual selves, not predetermined, artificial identities. At Augustus's living eulogy, Hazel tells him:

> I cannot tell you how thankful I am for our little infinity. I wouldn't trade it for the world. You gave me a forever within the numbered days, and I am so grateful. (Green, p. 260).

A novel is its own "little infinity," a temporary relational space between author and reader and sociocultural environment. Given the right conditions, a young reader may begin to conceive a better future for themselves.

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Chapter 4.

Transmaterial Ecocriticism: Epistemologies of Love and Light

Preface to Chapter 4

Chapter 2 illustrates the pedagogical problems of teaching in the context of climate crisis, and chapter 3 clarifies the problems of culturally reduced relational capacity. This chapter addresses the third key element of dissertation: the problem of suppressed epistemologies. The chapter illustrates how an expanded conception of ecocriticism can make way for increased cognitive diversity, relational capacity (i.e. love), and environmental responsibility, in essence, addressing all three identified problems. Furthering the work of the earlier chapters, it identifies storytelling—in this case, personal rather than fictional—as an avenue for expanded social imagination.

4.1. Learning from Light

This is a story about love.

A few years ago, I was torn about whether to accept an invitation to go on an arduous but adventurous, multi-day trek overseas. A dream came to me that helped me decide. In it, I was sitting on a rock that was luminous with auspicious and piercing golden light, the light of radiant love. In the dream, I sat on the rock, overlooking a small lake with the fellow trekker who invited me. I understood the dream as a calling from the rock to me, an invitation, a reassurance about the rightness of the trip.

Unfortunately, I aggravated an old knee injury a week before the flight. My physiotherapist pleaded with me not to go. She said if I went, I would "end up needing to be helicoptered off the trail." Another healthcare worker told me hiking was a "definite no," and I

should cancel the trip entirely. The day before the hike, I could not walk more than an hour without limping.

But how could I not go when light itself had invited me? In the end, I trusted the message of the dream: I accepted the luminous invitation of the rock.

Not only did I physically manage the trip, but inexplicably, my knee improved because of it. On the second day of the hike, I found myself sitting on the very rock that had dreamed itself to me. I sat there overlooking the small lake, with my fellow trekker. In the dream and in reality, I sensed the light that was both of and beyond the materiality of the rock, joining the light that was both of and beyond the corporeal "me." There, on the other side of the world, in a country entirely new to me, in a place I had never known, I felt a belonging, a connectedness, joy, and a profound renewal of my sense of self in relationship to the land.

Love can transcend the boundaries of the material world and make available otherwise unrecognized ways of comprehending and experiencing the world. Here, I'm not speaking of the emotion of love. Culture defines (Jankowiak, 2008) and manipulates the emotion of love, such as in the narcissification of eros in social media-drenched cultures (Han, 2017) or the capitalist commodification of intimacy and romance (Illouz, 2007). The emotion of love is a primarily psychological experience, which can wane, warp, suffer, or simply fail to develop due to biological, familial, cultural, or other reasons. Moreover, since, scientifically, the emotion of love is defined by the neurobiological apparatuses of humans, psychological definitions of love do not extend to our more-than-human kin. This anthropocentric framing limits our understanding of love, its epistemological potentials, and its ecological implications. Instead, I'm speaking of love that I understand as being available to and present within all entities—whether they walk, swim, fly, slither, wiggle, flow, twinkle, burn, or lie still as stones for centuries. This love exists as a radiance emanating from all things and beings. I perceive this love as transcending species and matter, and it exists regardless of culture and religion despite being interpreted, framed, and adjudicated through those lenses. It transcends and predates the logic of Western-style science, the rapid evolution of which hints at its incompleteness.

This paper offers examples of this love as experienced by the author and others and illustrates the ways these love encounters radically shift epistemologies. Educational practices can be developed to accommodate and foster the potential of these love epistemologies, but first, these epistemologies must be recognized as distinct ways of learning that differ from normative

educative expectations. We cannot map, hike, learn from, or appreciate a terrain we don't yet acknowledge exists.

Most North American education has little means of acknowledging these epistemologies, let alone ways of developing and benefitting from them. The coldness of capitalism (Illouz, 2007), the limitation of contemporary Western scientific methods, and inheritance of rationality from the Enlightenment, push all forms of transrational knowing (of which love/light experiences belong) to the fringes of possibility and social acceptance. Thus, many individuals who reside within the Western education system and have had profound experiences of radiant light/love have limited language for explaining their ways of understanding the world, each other, and themselves.

Fee Mozeley and Kathleen McPhillips's (2019) argument for the inclusion of transrational knowing as a valid way of knowing is presented as "feminist resistance." Although they firmly embed intuitive knowing within the material world of human perception and cognition rather than as an "otherworldly" ability, they identify the strategies women "draw on and enact to carve out extended inclusive epistemologies and new social ontologies" (p. 844). One of these strategies—one that I use here—is storytelling, a form of knowledge sharing with potential to shift, add to, expand, shrink, or reinforce rationalist modes. In their own study, Mozeley and McPhillips (2019) reported, "participants positioned stories and storytelling as strategies that have the power to resist and transform rationalist discourses" (p. 856). Although narratives may be 'normative' in some ways (Bruner, 1991), such as in chronology and eventfulness, they may also allow for epistemological stretching, such as in broadening a listener's sense of possibility.

4.2. Storying with Light and Love

When I was four years old, I nearly drown in a pool. The event that led to the near drowning is not important here. The drowning, however, brought me into a lethal cacophony with the crashing, chaotic, chlorinated water. Not understanding the physics of vocalization, I used my final moment above water to try to scream instead of gasping for desperately needed air. I tried to push out air instead of pulling it in to save me. Next, chlorinated water punched up into my brain. I was underwater then, my eyes open, watching my thin limbs sink down, too heavy to lift

again. Chlorinated water was inside me, but soon, "I" was no longer inside "me." Spellbound by the underwater pool light, I watched particles of light spill out of it like golden dust motes. I left my sad, crumpled, grey body behind and joined the light.

This transrational story offers a counterpoint to hegemonic ways of knowing gated by the patriarchal rationality that impose limits on us all, regardless of gender. But it also aims to expand current ecocritical theory with its shift toward nonmateriality and shared knowing. I tell this story from the perspective of an adult remembering their child-self coming into particular relationship with water, air, and light. Told from the perspective of water, this story might highlight rough and sudden changes in shape and form, the raised musicality of tumultuous splashing, and the sudden silence that followed. The air's story may involve the vast give and take between so many air-dependent beings. The light's perspective may reveal something about openings, invitations, and the memory of love and, likely, concepts humans cannot quite grasp.

Some people suggest humans have little right or no right to tell the stories of more-than-humans because they risk anthropomorphizing other-than-humans and adhering them to our human narrative (e.g. Raipola, 2019, p. 263). This caution makes sense against a backdrop of the individualistic ontology; if we are fundamentally separate beings, we imagine ourselves crossing divides to encounter and understand the other, and in some cases, such as between a human and a pool of water or an ethereal light, the divide may simply appear too great.

However, viewed from a relational ontology—wherein relationship is seen as primary condition of existence and individuation is secondary (Savary & Berne, 2017; Kuchta, 2022)—the task takes on a different form. How can I not, at least partially, comprehend and share the experience of the other if my relationship with the other predates my existence as a materially-separated entity? Within a relational context, relaying the narrative of water and light means returning to a shared space of knowing.

Because I am human and speak a human language and think in the ways humans are capable, my articulation of shared experiences will naturally go through a kind of translation. Juha Raipola (2019) cautions that we must be careful not to devalue more-than-humans or obscure their experiences by imposing the human agenda or anthropomorphizing. Yet, the caution risks reemphasizing an illusory separateness and problematic material focus. The story can instead be understood as shared. Efforts to convey shared experiences like these should not be abandoned because they focus our awareness again and again on our relationality, an orientation

which fosters greater human responsibility and alignment with more-than-human kin. Even if we articulate clumsily, the effort hones our skills at listening, interpreting, translating, and turning toward the relational, practices that can expand our epistemological horizons.

One narrative strategy for telling non-anthropocentric stories is reminiscent of Scherenschnitte, the German scissor-cut artwork, wherein that which has been "backgrounded" becomes the foreground (for the "backgrounding" of nature, see: Plumwood, 2001). This effort invites the reader to see beyond the silhouette of the human tale, to recognize the "backdrop" as an equal story whose relationship to the human tale makes the human tale possible ("Sudden peaks and crests of water fell silent. The watered eased the descent of thin, child limbs. For a moment, the water's surface rippled with the memory of the sinking."). Another strategy is akin to painting water colour on top of water colour. That is, allowing the narrative colours of all involved entities to merge into a collective colour. This can be accomplished in storytelling by switching and merging the story's protagonists ("The light particles poured out, poured into me, poured into the pool water. The light pulled me in."). These storytelling techniques invite listeners to see relationships rather than characters as the central entities of the story.

Of course, some fumbling is involved, but the effort is where growth can occur. Of all the stories I tell about my life, this near-death one is the most difficult. It occurred in a space without the need for human words. I experienced it as a four-year-old and I'm now attempting to translate it into the individualistically-oriented language of English (Kuchta & Blenkinsop, in press). It's a tall order to bundle the feelings, images, and communications that are beyond the scientifically known boundaries of the world onto the small, bent backs of the English alphabet. The reader's ontology is also responsible for these words and how they are received. Are they a reminder of something shared or are they heard from the other side of a divide?

4.3. Beyond Post/Material Ecocriticism

The pool light carried me to a world made of light. A profusion (perhaps a profundere*, a pouring out) of pink-gold dust motes in sunlight, radiating peace and love, radiating a love beyond anything in the material world of Earth. Here was Home, the true home. Beings made of light were before me and they spoke to me telepathically, without the tedium and confusion of words. Questions and ideas were simply and clearly imparted.*

This written story about my accident in water doesn't fit within the bounds of contemporary ecocriticism, which has more recently turned toward material ecocriticism and postmaterial ecocriticism. Serenella Iovino (2018) explains that within material ecocriticism, "the matter of the world is read as a 'storied matter': an eloquent text emerging from the concurrence of material-discursive forces and expressing the interactions of human and nonhuman actors" (p. 113). Note the emphasis on "matter," that is, on materiality (one also wonders why matter must be "read as" instead of 'expresses itself as'). In a similar vein, postmaterial ecocriticism recognizes the porous nature of identity and expands on new materialism by acknowledging "biophotons, nanoelements, and intelligent machines" as part of these relationalities and stories (Oppermann, 2016, p. 23). These avenues of investigation launch the field of ecocriticism toward intriguing conversations of ontology, epistemology, and ethics (though rarely conversations of practice).

Like relational research in other fields (Walsh et al. 2020), these ecocriticisms work to shift the focus away from brain-centred and individualized rationalism. Yet, by focusing narratives solely on materialities, they risk inadvertently demarcating the epistemological possibilities with the priorities of Western science and Eurocentric rationality. In doing so, these ecocriticisms may align with what Ken Wilbur (2000) calls the West's blinkered vision of the "infinite ahead" but not the "infinite above" (p. 410). In this "flatland," one's sights are "settled steely on the horizons not above but in front of them, settled coldly on this world, and this world, and this world again" (p. 410). Unlike some patriarchal religions, Wilbur's intention is not to devalue the sacredness of Earth and relocate it somewhere above and beyond, but rather to deepen, broaden, and expand a limited perspective by giving it three dimensions instead of two.

My experience with light occurred beyond the known materiality of the world and beyond the horizon of contemporary Western scientific explanation as no science has yet explained how these experiences might transpire (Alexander, 2012; Long, 2014). The corporeality of the story—the bodies of child, water, and air—forms the beginning and end of the story but not the important middle. The story is, then, transmaterial, existing somewhere beyond science's current understanding of cells, molecules, or even atoms and light. However, transmaterial, as used here, does not mean 'separate from' materiality or science; rather, it means 'moving through' materiality, not being bound by materiality, while touching into an additional realm—a deep and expansive interiority. I suggest the term transmaterial ecocriticism to create a collective cognitive space where we can tell ecological narratives that shift beyond the material world while still including and carrying implications for it. Transmaterial ecocriticism is also,

trans in the sense of 'bridging' and 'journeying' between materiality and apparent nonmateriality as well as between 'self' and what/who appears as 'other.' The term is not intended to imply a binary between materiality and nonmateriality; rather, it suggests a complexity wherein nonmateriality is more akin to a fourth dimension of the 3-dimensional material world in which we inhabit.

Here, transmaterial also differs from Karen Barad's (2015) "transmaterialities." Barad's use of the term sensually blurs boundaries of identity and materiality, morphing them in line with quantum physics to reveal queer realities and undo some of science's political assumptions and demarcations. For example, describing the electron, Barad reflects, "Its very nature is unnatural, not given, not fixed, but forever transitioning and transforming itself. Electrons (re)birth themselves in their engagement with all others, not as an act of self-birthing, but in an ongoing re-creating that is an un/doing of itself " (p. 401). These transrealities helpfully offer ways to use science to smudge inaccurate boundaries of science (not to mention enlivening understandings of the sensual cocreations of self/other/us). And, in relaying stories of electrons, Barad massages the English language with creative uses for parenthesis, dashes, and forward slashes to nuance her meanings. Nonetheless, for the moment at least, "electron" is a noun in the English language, an object, a thing, rather than a doing, a being (Kuchta & Blenkinsop, in press).

4.4. Near Death Experiences and Epistemological Transformation

In this space, light and love were the same thing. And beings made of light tried many subtle means to convince me to return to that sad, grey, crumpled body I had inhabited in, what seemed like, this sad, grey world. I emphatically rejected the idea. Finally, they told me/showed me what the human who felt responsible for my drowning would endure if I didn't return to this world: it would be like carrying broken glass in the physical muscle of the heart for a lifetime. I was shocked. But even then, I tried to talk them out of it, suggesting that person's pain might quickly disappear. Understanding something about time that I did not, they insisted that human would feel the pain their entire life, even in old age. The thought was inconceivable. Unbearable. So, reluctantly, I agreed to return.

I came back into my body with a new kind of story, a new understanding of the world, a new sense of myself. While it's true that I embodied the story—in neurological connections and

cellular memory—these corporeal storage systems were of secondary importance to me, for I had experienced the world of light outside my material body. I had experienced my self and my connection to others beyond my own corporeality, an awareness I retain to this day.

Studies have shown that millions of people in the world today have lived through near-death-experiences (NDEs) (Sartori, 2014) similar to mine (Long, 2014; Greyson, 2021) and most appear to experience "a permanent and complete paradigm shift in reality and view of themselves" (Stout et al., 2006, p. 51). Psychiatrist Bruce Greyson (2021) writes that there is "overwhelming" evidence about the transformative effect of NDEs "on people's attitudes, beliefs, and values" (p. 164). While some researchers have used scientific explanations (i.e. psychedelic visions, brainstem mechanisms designed to reduce suffering, DMT "dumps," or REM sleep disturbances) to explain away NDEs (e.g. Engmann, 2014), others concede that no reliable or convincing medical explanation has yet been able to account for these experiences (Alexander, 2012; Long, 2014; Greyson, 2021). Cardiologist Pim van Lommel (2014) clarified, "It is an authentic experience which cannot be simply dismissed as imagination, fear of death, hallucination, psychosis, the use of drugs, or oxygen deficiency" (p. xi). NDE experiencers demonstrate "consistent changes in [their] perception of self, relationship to other, and attitude toward life" (Greyson, 2021, p. 172).

Since so many people, and even children (Morse & Perry, 1991) have had these profoundly transformational experiences, it is worth asking: how does Western education acknowledge these remarkably prevalent experiences, understand their epistemological implications, and support those who experience them? Largely, it does not. In fact, NDE experiencers regularly report feeling "ridiculed and misunderstood when they talk about their near-death experiences" (Greyson, 2021, p. 198). After being threatened with psychiatric intervention, one NDE experiencer concluded, "the best thing I could do was to hold on to the light, never let it go, but keep silent, very, very silent" (p. 200). Yet, studies have shown that even those who have not had NDEs but are exposed to NDE stories, have experienced "reduced or eliminated suicidal ideation," "a significantly increased level of compassionate concern for others" and "greater planetary concern such as increased ecological sensitivity" (Tassell-Matamua et al., 2017, pp. 97-8). In light of contemporary culture's narcissistic tendencies (e.g. Han, 2017), increasing youth suicides and mental health disorders (Maté, 2022, p. 5), and ecological turmoil, the impact of these transmaterial light/love narratives should warrant greater attention.

My own NDE story directs my life in subtle and cataclysmic ways, influencing my relationships with family, friends, students, and the natural world. Foremost, the yearning to rejoin the light has manifested in an engagement with beauty, with nature, and with love—all those areas where I've discovered light/love may linger. The trunk of my tree of life, from which all branches emerge, is my spiritual path. Where I feel more light, I feel more belonging, I feel it is right to be there. Where I feel more shadow, I turn away, perceiving a message to stay away. Light may come from anywhere: a resonate piece of academic writing; the delightful eye contact with a neighborhood crow; the feel of bare feet on wet sand. Essentially, my perception of light/love guides my choices, my encounters, my understanding about the world, and my place within it. Yet, I regularly falter in my ability to understand or respond to the messages of love/light. I lack sufficient mentors and stories. Keeping quiet about my own NDE has been just one of the ways I have contributed to upholding the rational, patriarchal, and normative epistemology with all its limitations. But as Albert Einstein explained, "The right to search for truth implies also a duty; one must not conceal any part of what one has recognized to be true" (as cited by National Academy of Sciences, 2017, np). I believe anyone and everyone has access to the epistemologies of light/love.

In fact, over time I discovered that countless people have had near-death encounters with light/love (Morse & Perry, 1991; Alexander, 2012; Moody, 2014; Greyson, 2021, see also IANDS.org) or other profound transmaterial experiences with light/love. I've met an Irish woman who nearly died after being struck by a bus as a nine-year-old child. Like me, she resoundingly did not want to return to this world after experiencing the world of light. In being brought back, however, she understood that she was meant to be here, a belief that helped her survive a difficult and lonely childhood and various tragedies of adulthood. A Euro-American woman told me about being transported out of this world by light on multiple occasions during spiritual journeys. While these experiences temporary threw her daily life into uncertainty and crisis, they offered her a complex understanding of the Earth's function and purpose in relationship to other worlds as well as of humans' role within that greater purpose. Now years later, I still think about the stories of both these women, and they continue to bring me comfort, clarity, and meaning. In other words, their epistemologies of love/light mingle with my own in positive and expansive ways.

Jesuit priest Teilhard de Chardin (1817) described, "Love in all its subtleties is nothing more, and nothing less, than the more or less direct trace marked on the heart of the element by the psychical convergence of the universe upon itself" (p. 43). In other words, the inherent love within all constitutes and expresses the psychic link between all. Yet in religions, such as

Christianity and Islam, light/love and transportation beyond the realm of Earth often frame a worldview wherein the material world—that is, the Earth we live upon—is devalued. The material is paradoxically immaterial.

Devaluing the mountains, forests, oceans, ecosystems, and entities with whom we share this mortal life does not, however, resonate with my own experiences. For me and for the women who shared their stories with me, returning to the world means returning with a longing to experience the light/love again and a keenness to locate it in others, in humans, in stories, in crows, in river stones, in the land itself. These experiences are not evidence of some inherent specialness or superiority. Rather, each of us women travelled down pathways that eventually led us to understand that the light/love is everywhere and in everything. Light/love experiences have inspired each of us to more fully recognize the inherent value of others. This knowing has imbued the Irish woman to tend to her lush flower garden with particular nurturance. The Euro-American woman feels a distinct humility in being human and in being an earthling and carries a sense of obligation around "right living." For us three, transportation beyond the material realm, paradoxically, inspires greater appreciation for and obligation to the realm of the corporealities of this world. Among other things, the light/love, for me, is evidence of our fundamental connection to each other—a link independent of materiality.

Sitting upon the granite stone on that hiking trip, I felt a wholeness, a rightness within the world, a promise fulfilled. I felt immense joy and gratitude. My knee was healed. My heart was happy. Later that night as I sauntered outside in the moonlight, my hand caressed each boulder I passed. I felt love—genuine, deep love—for the life of each one, for the loving alliance between us, and for the mystery of the stories contained within them.

Some transrational encounters with light call to mind Sean Blenkinsop's (2005) reflection on Martin Buber's relational pedagogy. According to Blenkinsop, Buber recognized the "shekina," that is, the piece of light or "spark" "within each and every animal, vegetable and mineral on the temporal Earth" (p. 290). Blenkinsop adds, "In Hasidism people are responsible for finding, drawing forth and 're-connecting' these scattered pieces and they must approach every object with the intent of uncovering that spark, uniting it with their own, and ultimately, uniting all the sparks and returning them to God." In my encounter with the rock, it was the rock which found me and drew forth in me the capacity to connect with its own light. Notably, these religious perspectives stand apart from many other theological messages which insist on human

domination of the material realm. Similar to Buber's I/Thou encounters, my experiences of light have been encounters of love and togetherness.

My trek over the rocks was physically, emotionally, intellectually, ecologically, and spiritually healing. Because reality provided such clear "proof" of the dream's validity, my intuition in trusting the dream, and my abiding connection with light, reaffirmed my confidence in my own ways of knowing, however different from the norm, however unacceptable. As Robin Wall Kimmerer (2013) notes, "Knowing that you love the earth changes you, activates you to defend and protect and celebrate. But when you feel that the earth loves you in return, the feeling transforms the relationship from a one-way street into a sacred bond" (p. 125). Despite the hardships of pelting rain, slippery paths, physical exhaustion, and hunger, the overarching sense of the journey was that of bright, enlightened freedom and a sense of unity with the beings around me that transcends our material selves.

How can the "truth" in Foucaudian sense (1980), as presented in our materialistic, capitalistic, anthropocentric society, make room for experiences like these? Of course, it cannot. Ultimately, if we are bound to the rocks through light/love, it is not possible to blow them up on the mountainsides to extract minerals for human-oriented machines and tools that then, in their production, shipping, and disposal leak toxins upon additional rocks as well as soil and plant life. This story of the human-rock encounter challenges the domination of humans over the material world, a tenet which is fundamental to contemporary capitalism.

4.5. Conclusion

My own experience of light/love and the experiences others have shared with me lead me to wonder whether all of us at least some of the time, are aware of the light in and around us. Perhaps we've forgotten how to perceive it intentionally, or have forgotten how to perceive the invitation. We might only notice when the light is suddenly absent. A student shared the following story with me:

One day, while a senior in high school, this student suddenly and inexplicably felt extremely ill. She was dizzy, heavy, weak, and disoriented. She immediately asked if she could go home. On the walk home, her condition deteriorated. Feeling as though "a shadow had fallen inside" her, she

felt her knees buckle and she crumpled to the ground. Out of sheer desperation, she managed to get up and make it home—in time to see an ambulance parked outside her house.

Inside the paramedics were treating her mother. She had attempted suicide by overdosing on pills, which had resulted in her feeling dizzying, heavy, weak, and disoriented. When the mother collapsed on the floor, she panicked and phoned 911 to save herself. My student registered that the shadow fell over her just as her mother was collapsing.

This student experienced a way of knowing that is seemingly inexplicable when viewed from a material, scientific, and individualistic perspective. Although truly grateful she entrusted her story to me, I was also aware that most of our classroom activities and her postsecondary education as a whole did little to value her relational identity or develop her relational talents, just as they had done little for mine. How did I or anyone else invite her to tune in to whatever else she might sense? What else did this intuitive, connected individual know or have access to knowing that was left undiscovered? Perhaps the student experienced the "falling shadow" event as a one-off, an oddity that sits outside the realm of what is considered "real life." How many others may have experienced and remain silent about their own one-off events?

One way to make room for much needed epistemological expansions is to name a new form of storytelling: *transmaterial ecocriticism* can register, account for, and express transmaterial and transrational events. Doing so, could promote epistemological diversity and possibly empower those whose stories have been oppressed by particular forms of rationality. It could also potentially increase much needed social and ecological healing. On the practical level, the field of ecocriticism might begin to address the ecological themes and implications of near-death-experience stories. Ecocriticism and environmental education students might be asked to explore or locate their own unspoken stories of light/love. Environmental education researchers might explore the potential role of light/love in intuitive tracking and intuitive interspecies communication (Foster & Thiyagarajan, 2012), meander knowing (Beeman and Blenkinsop, 2008), intuitive ecological dreaming, and flow. Our capacity for this work is largely dependent on a deeply relational orientation. It is also dependent on a willingness and courage to look for and speak about experiences of light and love.

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Chapter 5.

Toward a More Eco-Relational English

Preface to Chapter 5

One of the underlying causes of both environmental degradation and wounded love is the hyper-individualistic worldview that disinclines us to consider our many interdependencies and their ensuing responsibilities. This issue can be addressed on many fronts, but as a long-time postsecondary English instructor and a writer, I am interested in the ways language structure and use wends into this issue. Language influences thought, but also expresses it. As English-language cultures turn toward more relational thinking, the language too might be tweaked to convey more relational ideas. If we are going to allow more cognitive diversity and more transrational ecocritical storytelling, as I argue in the previous chapter, some consideration of challenges and strengths of the English language may help.

This chapter presents the contents of the paper forthcoming by:

> Kuchta, E. C. & Blenkinsop, S. (in press). Toward a more eco-relational English. *Canadian Journal of Environmental Education*.

5.1. Abstract

This is an exploratory paper that intends to spark conversation and further investigation into the relational/ecological possibilities of English. English has ecological, colonial, and relational troubles baked into both its structure and usage—issues rarely addressed in ESE. However, these problematics might be mitigated with playful linguistic adjustments and careful assessments of embedded cultural assumptions. The paper illustrates a number of ways English can move toward greater relationality. Broadly speaking, we work through these potential relational shifts in

English at two main levels and five sub-categories: 1) Structure: punctuation, word choice, and grammar, and 2) Usage: form and content. In the end, we suggest that at all levels, micro to macro, the English language can be employed in ways that are more or less relational and ecological. English speakers can make thoughtful and creative decisions about the words used, the grammar employed, and the punctuation engaged. Speakers can also critically examine the cultural assumptions that undergird the "common sense" ways English is used throughout society. Practices for engaging ESE students in these tasks are suggested.

Keywords: Ecolinguistics, Relationality, English Language, English Usage, Environmental Education

5.2. An Opening Encounter

Tide had already pulled away, leaving Octopus abandoned on wet Sand between slippery Stones. Most of Octupus's limbs had been torn off, perhaps from a seal.

"Do you think they's dead?" I asked my friends, gravely.

"Probably."

"But what if they's still alive? They can't get back to Ocean by themself. And even if not, they might like their body to be returned home." I looked around for seagulls, but they were all occupied, gorging themselves on the abundant mussels.

Disinterested, other Humans turned away, but I didn't want to leave Octopus. Octopus dreamed to me a few years before, so I felt a responsibility I didn't know quite how to enact. They told me to always care for them because their kind embodied a form of intelligence far beyond what humans could currently imagine—intuitively impulsive, creative, and relational (Godfrey-Smith, 2016). I found two large, flat Sticks and began shimmying them beneath their plate-sized mantle. Then, Sticks-Octopus-I ventured awkwardly toward Ocean's edge. We were octopusing in sneakers or humaning with a variety of limbs. Feet made rough conversation with the barnacles. Shore sounded over the stones.

Finally, I set them down in salt Waves with Sticks. They drifted with the lethargy of the dead. There would be no more octopusing that day . . .

5.3. Introduction

Estella's story contains numerous adjustments to the English language with the purpose of reflecting and fostering an eco-centric worldview and an ecological ethos. As Daniel Butt explains, an ecological ethos is present when "groups and individuals are motivated to act with non-self-interested concern for the environment" (as cited in Gardiner et al., 2015, para. 1). Shifting beyond anthropocentric concerns for the environment enables humans to think more broadly, creatively, and realistically about the current health of the planet and our responsibility for it. But what happens if the tools available to us to think with, in this case English, themselves potentially limit the changes sought and the possibilities imagined? Since cognition, imagination, and language are indelibly connected, a similar shift beyond the anthropocentric and alienating is needed in our use of the English language.

The English language has been rightly criticized for its unecological features and for promoting conceptions of the world that are inaccurate, anthropocentric, and unecological. For example, Chawla (1991) has criticized English's fragmented sense of time which implies the "march" of technological progress is unavoidable (p. 117). She and others (e.g. Kimmerer 2017) noted that the noun-based feature of the English language is problematic (more about this below). Goatly (1996) identified the ways English is incompatible with contemporary scientific understanding of biology, ecology, and physics. Kimmerer (2017) has identified the ways English reduces the animacy of mountains, sandy beaches, bays, and other beings in ways the Indigenous Potawatomi language does not. Meighan (2020) noted that the noncountable (no singular vs. plural form) word "water" implies an "'infinite' source, or product, which can be ultimately exploited" (p. 84).

Not only does English reveal persistently unecological modes of thinking and relating, the language and its embedded ideologies have been imported across the globe through the violence of colonization, the enticements of globalization, and other forces. Phillipson and Skutnabb-Kangas (2017) remind us that imperialism "entailed dispossessing Indigenous peoples of their territory, culture and languages, three indivisible constituents" and often led to "linguistic

genocide" (emphasis ours, np). Wade Davis (2009) warned that humanity is facing "the imminent disappearance of half the extant languages of the world," a phenomenon which amounts to the devastating loss of vast "repositor[ies] of knowledge" (p. 5). Even when English doesn't kill off other languages, it regularly dominates them in fields of knowledge, such as science and technology along with academic journals and conferences. This snowballing of the English language's individualistic, anthropocentric, materialistic, and non-local ways of thinking across the globe may have significant eco-cognitive implications.

Many of the astute critiques of English originate in the same foundational issue: English in its structure and often in its cultural usage tends to promote fragmented, compartmentalized, individualistic, alienated, and object-oriented thinking. To put it another way, at core, English orients toward objects and individuals rather than relationships—or the act of relating. The prioritization of objects focuses speakers on material, economic, and consumer goals. The prioritization of individuals can lead to hierarchies which in turn motivates competition and the promotion of self-centered needs, often at the expense of others, whether those others are humans, plants, animals, mountainsides, or waterways. In these ways, English provides a cognitive template of the spatial world that is populated primarily by objects and individuals.

Similarly, English provides a cognitive template for the temporal world that is also troubled. English offers artificial disconnections of time. These dynamics occur on multiple levels of the language. For example, "year," "century," and" day" do not contain the same root form, implying a lack of relationship between them. Chawla (1991) argued that because English time words are countable nouns, they are treated "as if they are touch-and-see objects" (p. 117) rather than experiential events with blurred boundaries and complex interdependencies. This disjunction promotes the notion that the past is 'over' and can no longer impact the present. In reality, the intertwined atrocities of Indigenous genocide and ecocide reverberate painfully across the continent in the present moment and shadow the future. Rushworth (2020) observed, "Where we wreak havoc in the world comes from how we see time and space, among other fundamental visions" (p. 135). He continued:

> The grammar and the vision are a product of the image of time, the picture that time is given. People can look back on the timeline, back toward the feathers on the arrow, but they do not see Indians in the future, not in the National [American] Mind. The pain of this limited vision is all around us, a deep struggle for Indigenous people, whose internal structures present an altogether different image of time and space." (p. 136)

Object-oriented and individualistic English does not readily lend to reconciliation with land and with the Original-And-Continuing-Through-to-Future Peoples of this land.

Unsurprisingly, numerous scholars—from new materialists to animists to posthumanists to Indigenous—have identified that a relational worldview is more in harmony with an ecological worldview (Kuchta, 2022, p. 57). The relational worldview emerges from an ontology centered around relationships rather than objects or individuals. Humans exist and can best be understood as a network of relationships. Our contexts, communities, cultures shape, sustain, and create the "I" as it is understood within that frame. There is no detached, autonomous being enclosed by a thin wall of skin. The Earth's gravitational and spatial relationship to the sun creates the conditions for all biological life on Earth to exist.

Scholars in differing fields have leaned into relational ontologies from different angles. Educational Psychologist Darcia Narvaez (2016) spelled out the science of these interconnections when she wrote, "at the quantum level everyone on earth is connected; at the biological level, humans share DNA with virtually every other entity and each person is a community of microorganisms" (p. 8). Ethnobotanist Robin Wall Kimmerer (2013) clarified the relational ontology from the perspective of Anishinaabe beliefs in reciprocity:

> We are all bound by a covenant of reciprocity: plant breath for animal breath, winter and summer, predator and prey, grass and fire, night and day, living and dying. Water knows this, clouds know this. Soil and rocks know they are dancing in a continuous giveaway of making, unmaking, and making again the earth. (p. 383)

In the field of theology, Pierre Teilhard de Chardin (as paraphrased by Delio, 2017) believed, "union precedes being because love is the core energy of evolution and love is intrinsically relational" (p. x). Rather than having to work to prove that all things are connected—as so many of us English speakers do—perhaps we can begin to shift the language and create a more relationally oriented foundation.

5.4. Gifts of the English Language

While these critiques are valuable, focusing solely on criticism of the language amounts to soiling the nest we are living in. After all, English is currently the language of this journal and the primary language for most research and pedagogical resources in ESE. If English lags in

promoting ecological ways of being, it's time to examine our waste management and clean up our homes. Care, attention, and appreciation for the language may help to renew relationships between the natural world and those humans who are alienated there from. This effort may also allow us to better diagnose what ails us while imagining richer relational ways of being in and with the world.

For all its flaws and ugly and ongoing contributions to colonialism and ecological degradation, the inherent gifts of the English language (because *all* languages contain gifts) can potentially be used to respond to and perhaps overcome some of its aforementioned weaknesses. As a language, English is unusually flexible and adaptable. It is unusually forward-leaning. Already the largest vocabulary on the planet (Kimmerer, 2017, p. 128), astoundingly, English adds over 2000 new words every year (OED, 2021). Although we may not necessarily want to encourage this voracious appetite for new words (rapaciousness being an ethical downfall associated with the language), perhaps this keen adaptability can be ethically and creatively guided. This writing identifies some of the features of English that can flex, expand, or adapt to reflect more relational and ecological perspectives. Earlier, we characterized language as a nest because all languages hold their speakers. But in reality, each individual language is a unique species with attributes and features of its own.

Thus, metaphorically, English may be more of a water-strider than a nest. English is light and quick and deft, floating like the strider on top of the water, changing directions with panache, and sparkling in the sun. English skims across semiotic surfaces rather than whirlpooling listeners into the slow depths of history, order, or nuance. Quickness constitutes a different kind of genius, that of spontaneity, nimbleness, even playfulness. Since its earliest days, English has readily adopted words from other languages. Indeed, what we think of as "English" is a mixed foundation of Germanic, Dutch, and Romance words. This multicultural linguistic foundation naturally lends itself to a multicultural cognitive capacity that might even allow room for expressions, words, usages, ways of thinking that come from more relational depths. Making a relational shift in the language may be possible due to the language's remarkable flexibility, adaptability, and innovation.

This is an exploratory paper, intended to spark conversation and further investigation into the relational/ecological possibilities of English. It is not an invitation to create linguistic obstacle courses that only the most woke-of-woke academics can carry out. Rather than offer prescriptions, shoulds, and ought-to's, this paper is an open invitation for everyone to *play* with

language in ways that are inclusive and joyful. Yet, what begins as experimentation can take root fairly quickly with the general public when a shift in language is overdue and much needed. Consider, for example, the adoption and mental shift accompanying gender-neutral word changes from fire*man* to firefighter, from post*man* to postal *worker*, and from *he/she* to *they*. Similarly, consider the shift in the national Canadian mind when the term "Indian" in reference to Indigenous peoples shifted to "First Nations" in government documents, political speech, journalism, and education. Words matter. As Haraway (2017) noted, "it matters . . . what thoughts think thoughts, what descriptions describe descriptions" (p. 12).

Broadly speaking, and for the sake of clarity, we see relational shifts in English occurring at two main levels: 1) Structure: punctuation, word choice, and grammar, and 2) Usage: form and content. Of course, the two levels are linked, and our goal is not to further underscore the fragments and fracturings—the bits and pieces—qualities of structure and usage English. Rather, we are suggesting that at all levels, micro to macro, we can employ the language in ways that are more or less relational. We can prioritize and facilitate connections and illustrate the linkages that in some ways were always present but were rendered invisible by language. Rather than think of English punctuation, word choice, grammar, form, and content as pebbles in one's hand, consider them as nodes, links, gatherings in a multidimensional web, linking past-present-future, linking semiotics to ontologies, and linking creative intuition to action (Ross and Mannion, 2012).

5.5. Structure

Playing with Punctuation

Creative-minded academics in a variety of fields are already playing with punctuation to highlight the betweenness of objects, concepts, and beings. For example, Bayo Akomolafe, a "renegade academic" and Nigerian scholar (Young, 2020), uses dashes to disrupt English-language conceptions of divided, categorical time. Akomolafe writes (2018) that the "*middle-ing space* . . . gives birth to beginnings and endings" (np), and in doing so, he mends (with a dash and a gerund) traditionally disconnected notions of time in English and clarifies (with an explanation) the overlapping, entangled, and ongoing nature of beginnings and endings.

In addition to time references, scholars and writers are using dashes and joined words to heighten awareness of pre-existing relationships in realms that may otherwise escape notice. With poetic insight, Akomolafe (2018) reminds readers of common but unethical links between biology, law, and racial profiling/implicit bias with another hyphenation: "gut-microbial-courtrooms" (np). He writes, "What stirred in spacetime or squirmed in gut-microbial-courtrooms when that white Starbucks store employee called the Philadelphia police on two black men, who had committed no crime except to delay their orders?" (np). Dashes, in this instance, allow for lightning-quick communication of complex interconnections. Donna Haraway (2016), whose work centers on relationality and "tentacular thinking" (p. 31) makes a similar move when she references "techno-apocalypses" (p. 3), an easily understood concept for readers. In another move, however, Haraway (2016) abandons the dash with similar effect when she refers to "a kind of timeplace for learning to stay with the trouble of living and dying in response-ability on a damaged earth" (p. 2). "Timeplace" is a creative invention that collapses imaginary divides between temporal and spatial realities in the context of climate change and other planetary degradations.

In the same way that dashes and joined words can visually link words, thus, highlighting inherent connections, dashes can also divide singular words to prompt new understanding. Both Haraway and Akomolafe use dashes in this way, prompting pause and reconsideration over familiar words. For example, in the above passage, Haraway divides 'responsibility' into "response-ability," implying that responsibility should not merely be a quiet inward feeling of duty but is about actually *responding* and taking action (p. 2). Akomolafe's use of the dividing dash also implies an action. He writes (2018), "This is why we re-turn to DNA. Because 'it' now unfolds within the Anthropocene—a time of blurred boundaries, a time of noticed confusion when essences and static identities have become untenable" (n.p). "Re-turn" suggests physical motion—as if physically returning to an unfinished past—and simultaneously spiralling down the double helix of DNA, our ancestral inheritance.

Where Haraway and Akomolafe use dashes, marie diane caroline lefebvre[1] (2017), "a scholar of Mohawk and French ancestry," favours parenthetical additions and divisions to similar effect (p. iii). Her cousin to Akomolafe's "re-turn" is the "retu(r)ning" to the essentialness of the natural environment in Indigenous education—an invitation to *return*, to re*tune* the relationship, and perhaps, *tune* into or re-tune *into* those relationships (p. i). Her scholarship was driven in part

[1] A side project for you the reader: Consider lefebvre's choice to lower case their name.

by a yearning "to (re)connect with the ancestors" (p. 70). Her parenthetical nesting here of "(re)" reminds readers that we are never disconnected or unconnected from ancestors, though perhaps the connections float below the level of consciousness. In another illustration of parenthetical nesting, she writes of the tall grasses, "I loved how they swayed because I saw them as (m)*Other* earth's hair, a place of (dis)entanglement where I could be both lost and found" (p. 70). With these creative punctuations, lefebvre harkens to the oppression and marginalization of the "other," in this case, the earth. Indeed, the parenthesis in "(m)*Other*" creates a fleeting stutter in the reader's mind, as if there is some discomfort, an acknowledgement perhaps, of the perceived impoliteness of identifying oppression and relating to the oppressed while also likely leaning into quantum physics understandings of "entanglement" between self as mother and other and the familiar grasses. lefebvre draws our attention to her connection with the grass in being and identity, across time and space. But lefebvre's moment in the grass is also one of momentary *dis*engagement, a deliberate cognitive "(dis)entanglement, perhaps from mainstream society, urbanity, and/or the human-made world." Like the wampum belts she writes about, lefebvre literally "speaks to a different or (an)*Other* way of knowing/seeing/reading the world" (p. 73). Her parenthetical nests reveal to readers all that is embedded—the political, emotional, quantum, and metaphysical—within her relationships to earth, grass, words, history, stories, wampum belts, and ancestors.

In Estella's example, "Sticks-Octopus-I" is used to illustrate a momentary unity of direction as, "Sticks-Octopus-I ventured awkwardly toward Ocean's edge." Consider the alternative, written in conventional English: "I ventured awkwardly toward the edge of the ocean, using sticks to balance the octopus." In this writing, "I" is the centre, "I" alone is animated, and "I" alone takes action. This sense of the human as the lone, vital centre also appears in the subtle use of capital letters and the omission of the article "the" to underscore the sense of a meeting occurring between and amongst beings rather than *things*. If we write "Tide had already pulled away, leaving Octopus stranded," the feeling is more intimate and familiar than if we write, "The tide had already pulled away, leaving the octopus stranded." "The" turns Tide and Octopus into objects whereas its omission implies a relational intimacy. And, in this example Estella is encountering a particular Octopus, as she might encounter a particular Anika or Aubrey, and not octopuses or humans writ large or as a generic category. Without these considerations the ocean, sticks, and octopus remain mere objects which "I" can manipulate, use, approach, or choose to encounter. If this conventional, object-oriented writing style does anything at all to suggest relationship, it is only to reinforce a belief in human superiority in relationship to non-human

(“non” placed here intentionally and not unproblematically) entities. As a creative and relational practice, environmental education students could be asked to take a paragraph of their own writing and rewrite it using punctuation and capitalization to illustrate relationships between beings and concepts.

Playing with Word Creation and Loanwords

As an unusually expansive and adaptable language, English readily adopts new words, whether creations from English (e.g. craftivist, denialism, idiocracy), combination English-foreign words (farmette), or loanwords from other languages, such these Algonquian words: moose, chipmunk, persimmon (Chamberlain, 1902, p. 240). This multicultural nature of the language is built into the origins of the language itself. On the positive side, it builds on a foundation of diversity and inclusivity, and on the dubious side, that foundation includes an economic orientation and an ongoing colonialist legacy. A relational shift in the English language is not about making a colonialist “grab” at words from other languages and cultures. Rather, it means flexing the structures and making space for other language speakers to bring words and phrasing into English when suitable translations or meanings don’t exist. It also means continuing the kind of creativity and flexibility inherent in the language that allows us to say things like: Those craftivists are putting knit bikinis on fir trees to protest climate denialism and the idiocracies that fuel it.

How can the inclusion—whether fleeting or permanent—of foreign words be done ethically? Ho and Chang (2021) illustrate one way. They recognized a gap in practices, concepts, and ideals of North American outdoor education. According to Ho and Chang, white-dominated environmental education programs privilege concepts and practices related to adventure, athleticism, and pristine wilderness, and sideline many immigrant experiences of the natural world such as generational gardening practices and village and urban relationships to Nature (or nature?). As native Taiwanese Mandarin speakers, they introduce the term *xiang tu* (鄉土) to expand awareness of human relationships to land. They explain:

> *Xiang tu* is a unifying concept that captures interconnectedness of people and place, the non-generalizable nature of land. In essence, the land is both people and place. Xiang tu evokes people’s memories of home, of belonging, of contact with soil, the sensory cords that tie people to place. Xiang tu is neither wild nor urban, neither an exotic paradise, nor a frenetic metropolis, but instead references the

> multivalent space of human/land relations in its variegated forms . . . *Xiang tu* points to the nourishing effect of land, of the formative influence of place in the development of person and consciousness. (p. 10)

It would be difficult to imagine a word in English—even a hyphenated collection of words—that cultivates in the mind of speakers such depth and subtlety of relationship between people and place. However, even when a foreign word has been presented, it may or may not be offered as a give-away. When in doubt, speakers might simply ask if the word is available for wider use and if their use of the word is doing justice to its original linguistic intent. Even if it is, those who are gifting words and those receiving them may want to bear in mind that words, just like people, tend to shift in character, often inadvertently and unknowingly, when in a new location.

Haraway (2016) explains another example of a new adopted word: *chthulucene*. Chthulucene presents a more embodied and engaged way to live of this timespace in light of ongoing and catastrophic ecological degradation than the word *Anthropocene* which inaccurately piles blame on 'humans' rather than on particular values and practices of particular populations of techno-industrialized humans. Haraway articulates, "[C]*hthulucene* is a simple word. It is a compound of two Greek roots (*khthon* and *kainos*) that together name a kind of timeplace for learning to stay with the trouble of living and dying in response-ability on a damaged earth" (p. 2). Greek is not an entirely 'foreign' language to English, as Greek helped shape Latin and French, which in turn, have helped shape English.

Drawing from her French ancestry, lefebvre remakes numerous English words into more meaningful English-French hybrids. For example, in French, the word "histoire" means both "story" and "history," so lefebvre sets "histoire" alongside "history" to emphasize the narrative aspect of history for English speakers (2017, p. iii). By using "elle" the French word for "she" in "*Elle*mental," lefebvre also links the feminine nature of Mother Earth to the elements (p. i). Environmental education students might be asked to research and consider nature-related words from their own linguistic heritage (such as *komorebi* from Japanese, *hiraeth* from Welsh), and whether, how, and when it might be appropriate to bring those words into English writing and discussion.

Playing with Verbing

Sometimes it's only possible to understand the character of a language when compared to another. Robin Wall Kimmerer (2017) encountered this experience while trying to learn the Indigenous language of her ancestors: Potawatomi. She reported, "English is a noun-based language, somehow appropriate to a culture so obsessed with things. Only 30% of English words are verbs, but in Potawatomi that proportion is 70%" (p. 130). As Kimmerer points out, the consequence of increased verbing (yes, that is a word) is that beings in the natural world take on greater animacy and, thus, centrality and importance in the collective imagination. In Potawatomi, words we commonly think of as "things" are verbs, such as Saturday, a sandy beach, or a bay (Kimmerer, 2017). "A bay" in English is a static thing, while in Potawatomi, a bay is "being a bay" or, if we may, "bay*ing*."

Kimmerer does not suggest that the English language should adopt Indigenous features, and nor do we. Yet, without trying to mimic other traditions, English may allow for more verbing in its own right. After all, verbing is another fast-moving, adaptable feature of the language. Consider the many words that began as nouns and became verbs, such as othering, emailing, texting, and adulting.[2]

In fact, might we offer a new verbing word: *humaning*? At a recent conference of outdoor educators, one young academic said she always felt so bad stepping on the grasses. She talked about reducing her 'footprint' on the natural world by eating only vegan food. Another young scholar looked unconvinced. She explained (we are paraphrasing): 'Bears can walk on the grasses. Lions can hunt and eat prey. I'm allowed to be a human and do human things.' *Humaning* means wrestling with these kinds of questions. It means making environmentally-minded but possibly incorrect choices, such as returning a severely injured or deceased octopus to the ocean. The word clarifies that being human is a changeable, challengeable, and processional state, open for debate and change, by no means static or fixed. It means wrestling with what it means to be human or do humaning well in relation to all our kin, human and the rest of burbling, buzzing, basking denizens on this planet. It means trying to hold to a sense of obligation to Nature's other beings, with recognition that humans are fallible and don't always make the right choices even when trying.

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2 Sean and Estella have recently co-authored a book called *Ecologizing Education* although "ecologizing" is not officially part of the OED yet.

Environmental education students can likely readily think of many examples of *humaning*. And they might be asked: What additional nouns might be shifted from static to active forms through verbing? How can adding -ing illustrate additional ecological on-goings, beingness, and relationships?

5.6. Usage

Examining cultural assumptions and the problem of N(n)ature

It has long been noted in feminist circles that to position women using natural metaphors is often done in deeply derogatory ways. Patriarchal language finds ways to first separate, often through binaries, and then associate the female with other "lesser than" beings thereby reifying male superiority. The same move is easily noticed in relation to other, often non-English language, cultures. We all know the lists. For our purposes here this is problematic for two reasons. First, the intentional use of language as a means to denigrate any other groups of humans is problematic and certainly doesn't support relationality. And second, the cultural assumptions built into these moves often don't even question why being metaphorically linked to the natural world is derogatory. For what is so wrong with being an ass, a snake, a wallflower, a dog, and so on? And, how do we come to notice these assumptions and better yet, find ways to change them?

As in all languages, many cultural assumptions are built into the form of the English language. For example, the natural world has been positioned and articulated in heteronormative ways—and then that positioned heteronormativity is used to "prove" or affirm those assumptions. This is a kind of manipulative bridge-burning tautology. Mortimer-Sandilands's (2010) research in this area examines how biology, for example, laced with heteronormativity has supposedly "found" gendered behaviour throughout the animal world. For example, male researchers will focus on the "dominant" heterosexual behaviour of the silver back gorilla and not notice all the other goings on between and amongst the rest of the troop. Subsequently, this limited vision is picked up by the mainstream culture and used as a linguistic weapon against LGBTQ2S+ populations suggesting that they are "unnatural" even though, as many other researchers have been pointing out, the diversity of gender expression and sexuality of the natural world, or even that particular troop of gorillas, is certainly not normed to some monogamous heterosexual Truth.

These examples are striking, but less obvious forms English also maintain alienation. Forests are seen as a “resource,” open plains as “bread-baskets,” and herds of deer and antelopes as “game.” However, the obvious example in ESE involves the words used for all those beings around us that are not human. The binary language of nature and the environment have been rightfully critiqued as furthering and sustaining this problematic alienation of humans from the world. Binary language is also a colonizing way of lumping immense diversity into a single category in the way settler colonial cultures have done for centuries with diverse communities (Blenkinsop, 2016). For example, gathering an entire continent of diverse peoples, cultures, languages, and ecosystems into a single word “Africa” and then making overgeneralized or power-over statements therewith. This said, we are still challenged to find something to adequately position humans as being *part* of the world, not separate from or better than. Abram (1996), for example, tried to do this work with the term *more-than-human*. However, the result has often been to simply use it in place of *environment* or *nature*, which was not Abram’s goal and is a misuse of the term as he envisioned. Our little nod in this direction is to acknowledge the particularity of Octopus for example with a capital.

Finally, we might consider the form of the typical English essay, a structure that contains an externally-prescribed organizational pattern. This form does not reflect the diversity of available communication, but rather promotes homogeneity, dependency on a singular style that sorts, almost immediately, those in the know and those that aren’t but that also leans towards a kind of objective argumentation no self-respecting hummingbird would countenance. Alternatively, English writing projects could be “transformed by ecological principles” in order to “acknowledge our ecological interconnectedness” (Englehardt & Schraffenberger, p. 273), such as Tsing’s book chapters blooming like “flushes of mushrooms” (2015, p. viii), Kimmerer’s stories woven like sweetgrass (2015), and Powers’s old growth interdependencies (2018). Traditional essays are largely structured for reader efficiency, to allow for skimming and quick consumption. But efficiency and consumption are problematic features from an ecological perspective. The typical English essay structure also hints at colonialist tendencies since it makes a ‘claim’ almost as soon as arriving and unwaveringly fulfills that claim to the end.

Instead, students could be asked to create diversified writings inspired by the organizational design patterns of foxglove, ocean waves, or bee dances, wherein “introductions,” for example, are replaced by conceptual “stems,” “primary rhythms,” or “waggle angles.” For further inspiration, students might read Noel Gough’s (2007) “RhizomANTics,” which plays with rhizomatic thinking, posthuman pedagogies, and, of course, ants.

Examining Kinship Terms, Favoured Sayings, and the Question of "It"

A number of creative possibilities exist that emphasize a relational ontology in English. For example, Chawla (1991) has reminded us that many Indigenous languages use kinship terms in reference to more-than-humans (p. 118). Among the Cherokee, the "new moon is addressed as grandfather," while "Among the Pueblo, the sun is the father . . . and the earth is the mother" (Chawla, p. 118). These are not likely "anthropomorphic" descriptions in the true sense of the word, as Chawla once suggested (1991, p. 118). Rather, they are suggestive of a depth and quality of a very real relationship, similar to how Indonesians might refer to beloved older men as *Bapak* ("father") and women as *Ibu* ("mother"). The term is a sign of respect, a recognition of the relationship that is possible, and an openness to that relationship—not an attempt to claim a biological relationship.

Again, the point is not to imitate the speech of Indonesians or Cherokee. In fact, those are exactly the kind of superficial, self-serving enactments that echo English's long history of colonialism. Even a term frequently used in English, such as "Mother Earth," can be problematic depending on the context and speaker. After all, in North America, mainstream culture tends to sideline and devalue mothers. On screens and other media, mothers are often portrayed as unattractive and undesirable but endlessly self-sacrificing women who strive—or should strive—for heroic parenting feats at the expense of their own needs. Food appears, laundry is done, waste is removed as if by magic and the "family" neither notices or cares for the doer nor worries that mother might become exhausted and incapable of keeping this up. Referring to the planet as "Mother Earth" may, sadly and accidentally reflect how much she does for us with little to no recognition. When used without conscious thought by the dominant culture, the term may be accurate but not remotely ecological. It offers nothing for many individuals in terms of decentering the human and aligning with a more ecological relationality. The point is that more attention can be paid to the implied content of the words we use.

Individual English speakers might look honestly at their own relationships to the natural beings around them and consider what linguistic adjustments might authentically reflect and serve those relationships. For example, in writing about octopus, "they" was used instead of "it" to underscore a felt closeness and as recognition of Octopus's rights to be known as they might desire. Environmental education students might be asked to engage in this as an exercise: What terms, verbs, and phrases most accurately articulate your relationship to the natural world—both the actual relationship and the ideal?

Finally, we want to identify some playful possibilities that English might provide as it moves toward greater eco-relationality. For example, while considering this paper we wondered, in an attempt to reverse the use of natural beings as human insults, what taunts our natural kin might use on each other. Jellyfish might notice how a friend moved as if it had a *skeleton* or Mouse might point out the worrisome human-like shoulders on a sibling or Cheetah laughing at its mates slow two-leggedness. This flip in frame has become a useful tool in many of the classrooms we work with as teachers and students re-think expressions – "killing two birds with one stone" – in more ecological forms – "feeding two birds with one hand." Students can be asked to consider other ecologically problematic idioms and suggest revisions. Teachers can also change the stories they read and tell (Blenkinsop, 2010) in order to undo myriad manifestations in language of these alienated, hierarchical, and species elitist cultural assumptions.

5.7. Conclusion and Caveats

Moving toward a more relational English in whatever manner can reveal challenges while also centralizing inherent relationships that may otherwise fly under the radar in standard English communication. These ecolinguistic moves can potentially emphasize the wholistic, nonlinear nature of time and highlight inequities and injustices. They offer a shorthand way to relay complex concepts to readers with brevity and fleetness. They clarify how meanings and matter lean into each other and share space. On the other hand, not all creative linguistic changes highlight relationality—at least not in the ecocentric relational ontology sense. And many moves may begin a process that, upon further review, may in itself be changed or even retired.

Loanwords from other languages need to be handled with care. The same can be said for "adopting" Indigenous kinship terms in reference to Nature's many beings. Although loanwords and kinship terms illustrate meaningful ways to enrich the relational capacity of the language, ethical issues of appropriation and misuse are risks. On the other hand, drawing from one's own heritage or the linguistic origins of English can be a playful and rewarding way to expand the cognitive carrying capacity of singular words, sayings, and metaphors.

Environmental education students can play with language by writing their own Octopussing tales. In doing so, they might be encouraged to play with punctuation, capitalization, word joining, verbing, and other flexes of the English language. They might counter colonial

practices and enact ongoing reconciliations by identifying the origin of loan words and giving thanks for those gifts as well as recognizing the inherent link between words and place. They might find ways to decentralize the human "I" and foreground the often backgrounded stories of flora and fauna. In doing so, they might experiment with diverse modes of expression; rather than writing traditional "essays," for example, they might creatively craft literary versions of iris blooms, dragonfly wings, or wind patterns by rethinking the structure of sentences, paragraphs, direction, theme, and overall organizational design along ecological principles.

Of course, not all language experiments survive. Even promising, much needed, and well-considered linguistic experiments (shout out to all the "zhe" fans!) sometimes fail to take root. In addition to the obvious ethical pitfalls of carelessly appropriating from other languages and cultures, shifts in English risk coming across as trite or gimmicky. Perhaps even worse, they risk becoming exclusionary; meaning, English and the politics surrounding it are changing so rapidly, sometimes only those on the very cutting edge know what's going on. Meanwhile, those who haven't gotten the latest memos can be unfairly chastised, excluded, and called out. If we're going to open up the invitation to play with language, let's make sure everyone is invited into the party, no matter how recently they arrived. After all, what's the point of becoming more relational if it results in more exclusion? If English has been an unwitting vehicle for oppression—of peoples, Nature, and places—then the reconciliation necessarily involves more liberation for all.

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Chapter 6.

The Epistemological Possibilities of Love: Relearning the Love of Land

Preface to Chapter 6

In chapter 4, I use personal stories to illustrate how love enables learning. Here, I also explore the ways formal and informal education have actively discouraged this way of learning due to the embedded individualistic ontology. This discouragement effects young people's capacity to care for the environment, to appreciate Indigenous protests, and to give and receive love. In essence, this chapter clarifies that the first step in supporting love epistemologies is to prevent them from being oppressed in the first place.

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For Maxwell and for Last Chance.

6.1. Prelude: learning to Walk in the dark

I learned how to walk in the dark, first pregnant, then holding a baby. The first lesson of darkness is: Most darkness is not so dark. On the remote, off-grid California mountaintop where I lived, locally and fondly known as "Last Chance," shoals of stars lit up the night sky. The fingernail moon brightens enough stones to find one's way down the path. The smiling Cheshire cat moon

turns bull pine, madrones, spiky agave plant, and trails a milky-blue, so the walk can be less cautious. The generous pancake moon casts shadows beneath the elbowy march of a beetle and sheds pretty dappled light through leaves to the forest floor. A stroll through that darkness is a smiling, ethereal event, playful and surreal. Amidst this shifting beauty, I went out to fetch the firewood, to trek to the outhouse, to take a shower, to fetch a forgotten sweater from the garden, or to travel between our primitive cabins (mostly a series of shacks: a 'main' cabin, a bedroom cabin, a bathhouse cabin, a spare bed cabin, and our primary home—a converted school bus.)

The second lesson of darkness is: It is beautiful. It's an under-appreciated, warm thing wrapping the body in soft, black fur. Morning offers hope. Evening offers respite. But night gives us pause, a sense of being outside of time. Often, I put a hand to my belly and made excuses to step out into it. When I did, joy bloomed inside me. Lesson three: Stepping into the night means stepping into a story told by a dear friend. The groan of a madrone trunk tells of uncomfortable contrasts between daytime heat and night cold. The small beetle now pausing on the trail senses an insect nearby. Pausing to sniff the air, Tango, my blue heeler, helped me notice the scent of cool rocks, tangy pine, and sweet madrone. Occasionally, muskiness hinted that a raccoon or rat was nearby. When I stepped into the night, my senses—the five ordinary ones and the other extraordinary ones—seemed to ask: What is the story here?

Occasionally, however, darkness is complete. If thick clouds hid a new moon, if my partner was away so the lights were off in the other dwellings, if I left my flashlight somewhere else—then night wrapped a black blanket too tightly around me. In those moments, I couldn't see my own body and I had 50 yards of winding, bumpy trail to navigate through the trees. The propane lights inside the cabin were too dim to shed light up the trail. The most immediate threat was that I might trip and hit my head or belly on a rock. But my mind went first to the nocturnal mountain lions in the area and the peculiar, translucent scorpions that ventured out to devour beetles in the night. But we had also seen black widow spiders, rattle snakes, lynx, large bucks, and packs of wild boars on the mountaintop. Fear jammed up inside me—throbbing in my chest—undecided whether to make me freeze, run blindly in panic, or scream, though no human would hear me. That's when I learned the fourth lesson of night: Fear is a terrible guide through the dark. Fear constricts and threatens to scatter needed focus. It divides—me and my unborn baby on one side—and the land and its other inhabitants on the other side.

Beneath the fear, something else, softer and more inviting, called to me. I didn't decide what to do next. I just did it. With a hand on my belly, where my growing baby slept, I *asked* the

land to show me the way. I knew this land and this land knew me. Remembering that—feeling it—calmed me. Still on high alert, I reached my sandled toe toward the trail.

At the trailhead, I veered right to make room for the small fir branch leaning over the trail and stepped tall to avoid tripping on the three raised madrone roots. I veered slightly left, my foot crunched dried leaves—too far left. I straightened onto the trail. I paused briefly to listen for Tango. Her silence reassured me. If a mountain lion was near, she would explode with noise. (I believed that on faith, but several years later, she proved it while successfully protecting my young nephew from a night lion.) The map in my mind reminded me where to step around and over the next stumps and roots, and when to bend hard right up to the cabin. I touched the arms of my tree friends, remembering the location and size of each. Soon enough, I reached the school bus, found the matches, and lit a candle. Then I paused and said, *thank you*.

6.2. Ontology of the isolated individual and the limits of standard education

As numerous scholars have addressed (e.g. Jickling et al., 2018; Louv, 2005), standard North American educational practices do little to foster significant relationships between humans and more-than-humans or acknowledge their existing relationships. My own cultural and institutional education illustrates a few ways children are drawn away from naturally occurring relational ontologies emerging from shared identity, care, and love. Twelve years of standard Canadian education helped me understand moon cycles, cloud formation, and the basics of animal motivations. At church, I learned that animals—including my beloved pet dog—and plants have no souls and are, therefore, inferior and destined to be ruled by humans. Before the age of six, I never doubted that the maple trees in my yard knew me, cared about me, and communicated with me. This sense went beyond object-projection because, unlike a teddy bear, the trees responded to me. They swayed and dropped leaves and, most importantly, talked to me albeit without human words.

One day, however, I arrived home to see my father had felled one and was going at it with the chainsaw. To some extent, my experience in that moment relates to Gilligan and Snider's (2018) assertion that cultural patriarchy demands the loss of some relationships in exchange for broader cultural acceptance. Seeing my horror, my father, a second-generation Eastern European

settler, explained that trees don't feel, can't think, and don't have the consciousness to understand their lives or deaths. Believing him meant denying all I had experienced in my friendships with those trees. It meant abandoning the quiet closeness we shared and intimate sense of abiding mutual care. But not believing him meant that I was witnessing the death—the murder—of one of my close companions—a pain I could not bear. In severing my relationship with all trees, I stepped into an ontological orientation aligned with the dominant North American culture and reinforced through formal education.

Standard North American education orients from a fundamental assumption about the isolation of the individual. Bayo Akomolafe (2020) articulates, "One of the most persistent and sticky habits of perception that has possessed those of us gestating in modern civilization is we tend to see things as separate from each other." This ontology is so deeply rooted and unchecked that even earnest educational attempts toward more wholistic epistemologies and greater interconnectedness tend to orient from it. Scholars and teachers might talk about *reaching out to* the other and *making* relationships, but these actions can only take place if we assume the starting point is that of the isolated individual. For example, standing at the edge of the black abyss that night, I might have, like Richard Kearney (2015), prioritized my sense of touch for "making sense and *receiving* sense from ... something *other* than myself," crossing "back and forth between self and strangeness" (p. 104). Kearney's sensual analysis of touch limits understanding of the "other" to what skin can sense and brain can, thus, interpret. This framing orients around the primacy of material bodies—mine and that of the trees, stones, and soil around me. From this perspective, identity is bound to the material body, and only with concerted effort might we perceive the other who is bound within their own material self.

Perhaps more so than any other foundational belief, the ontology of individualism limits the capacity of humans to engage in ecologically ethical and relationally meaningful ways with our more-than-human community. Indeed, this is the worldview of the cultures that have carried us into the Anthropocene. If my perception of my own beingness is primarily that of independence, naturally, I will care for *self* before considering my impact on more-than-humans. Furthermore, I will expect all others, human or not, to prioritize themselves as well, leading to a worldview defined by competition and, thus, hierarchies. From this standpoint, more-than-humans are seen not as relationships but as resources. Ultimately, actions that impact land, water, and other entities within the natural world are seen as justifiable if they provide personal profit. This is the kind of faulty reasoning underscoring the Anthropocene, a time of reckoning with the dangerous consequences of cultural errors.

6.3. Can land *love*?

Many contemporary scholars are shifting away from the object-oriented worldview and making moves toward more relationally-oriented ontologies, whether through forms of new materialism (Bennett, 2010), animism (Stengers, 2012; Bai, 2015), posthumanism (Snaza & Weaver, 2015), making kin (Haraway, 2016) or a scientific recognition of the deep interconnectedness of human development (Lieberman, 2013; Narvaez, 2014). The field of love research has much to offer this movement. In human experience, love is a central binding agent and catalyzing force with the capacity to spark new life, and thus, new subjects which are inherently already in relationship. Up on the dark mountain, the growing baby inside me, like most unborn babies, was sparked through relationship and through love, and was already in relationship to the mountain prior to birth through the oxygen and nutrients absorbed by me along with accompanying affective experiences. Clarifying Pierre Teilhard de Chardin's theory of love, Ilia Delio (2017) writes, "union precedes being because love is the core energy of evolution and love is intrinsically relational" (p. x). Chardin (1817) explained simply, "love is the primal and universal psychic energy" (p. 4).

Can land *love*? Dominant North American culture says it cannot. What is the evidence for this belief? First, many psychologists would point out that the composition of soil, rock, and flora does not contain the necessary physiological systems required for experiencing love, namely, linked hormonal, neurological, and epidermis systems. It is a typically Western fallacy to assume that intelligence and feeling can only be measured using the human yardstick and human-like faculties. Even Western scientists have begun to understand that the human exceptionalism bias has crippled our capacity to comprehend the vast complexity of intelligence and sensibility possible outside the human sphere (e.g. De Waal, 2016). For example, Peter Wohllenben's research (2015) on trees illuminates sophisticated systems of care, community, and communication. More broadly, the theory of Gaia urges educators and activists to consider the entire earth as a highly elaborate network of living organisms with enormous capacity for response to its human inhabitants (Latour, 2017). Some scholars may feel squeamish about seeing land as "loving" because, to them, this invokes quaint images of tearful trees and other silly personifications. While moving to recognize the agency and capacities of more-than-humans, let's sidestep the tendency to remake them in our own image.

Love has been defined as an action (hooks, 2001) and an energy (Savary & Berne, 2017). Here, theologian Pierre Tielhard de Chardin's theories of love overlap with Potawatomi Botanist

Robin Wall Kimmerer's (2013) explanations of love and reciprocity. Teilhard, according to Delio (2017), believed "the *physical* structure of the universe is love" (p. x). Savary and Berne (2017) elaborate, "Teilhard always thinks of love in all its many forms primarily as energy—as the ability to do work. Love is energy because it is able to accomplish things, make a difference, transform people" (xiv). Kimmerer described, "Something essential happens in the vegetable garden. It's a place where if you can't say 'I love you' out loud, you can say it in seeds. And the land will reciprocate, in beans" (p. 127).

Love from land is a highly complex series of interconnected and ongoing processes, that is, energies and actions that are supportive, generous, and sensual. Land loves through interconnected entities of light, soil, and plant life, as well as those of weather patterns, and sensory stimulus. The land on the mountaintop provided me and my unborn baby with black beans, green beans, bell peppers, lettuce, tomatoes, potatoes, herbs, flowers, and herbal medicines along with rain and creek water for washing. We took these forms of love into our bodies, absorbing their goodness and nourishment. This love gave us the physical energy needed to eventually move to other lands, just as the love from other lands had carried me to this one. Food, water, and natural medicines are just a few of the most obvious ways the land expressed love.

Other ways involve the generosity of the endless beauty, familiarity, and welcomeness, a feeling of 'Home.' Sue Gerhardt (2004) explained that repeated emotion experienced by mothers during pregnancy can and does help shape a child's physiological attachment systems, often for life. How might my repeated joyful and intimate encounters with night have imprinted my unborn son? The dazzle of stars? The gift of an armful of kindling on cold nights? The sweet snap of a pea eaten in the moonlight while the San Pedro cactus reveals its yearly 24-hour bloom? The land at Last Chance offered me generosity, beauty, inspiration, friendships, and companionship. Love binds people to land and offers a 'between' space, where ecologically responsible and relationally attuned knowledges can emerge. Kimmerer (2013) explained, "Knowing that you love the earth changes you, activates you to defend and protect and celebrate. But when you feel that the earth loves you in return, that feeling transforms the relationship from a one-way street into a sacred bond" (p. 125). Two decades later and a country away, my son and I still feel a sacred bond with Last Chance.

Although loving bonds to land lend to ecologically ethical epistemologies, standard education actively undermines the relational ontologies that support it. Numerous scholars have identified the ways contemporary North American culture increasingly experiences an

impoverishment of love (Sorokin, 1954; hooks, 2001; Savary & Berne, 2017), relationality (Gerhardt, 2010; Narvaez, 2016) and perversions of emotions in general (Illouz, 2007; Cederstrom & Spicer, 2015); however, love impoverishment also applies to the dominant North American culture's relationship to more-than-humans, a relatively unexplored dynamic. Love scholars tend to view plants, animals, and land as objects deserving appreciation and care (Noddings, 1986; hooks, 2001) while eco-education scholars tend to discuss 'relationships' and 'care' for the natural world without mentioning the love inherent within those relationships (Jickling et al., 2018). In essence, ecological education can further deepen notions of relationality from the lens of love research, while love research can map previously overlooked terrains of love relationships with land. As Delio (2017) articulates, "How we love is how we live, and who we love shapes our relationships, communities, our connection to the Earth, and the future of the Earth" (p. xi).

6.4. Definition of relational ontology

Particular pathways within science, Indigenous education, theology, and environmental ethics converge around the idea of a relational ontology. This orientation, as I define it, begins from the philosophic perspective that an "I" does not exist without relationship; thus, relationships come first, individualism is secondary. Western education, however, is rooted in an ontology of individualism, an understanding of the world where the "I" is central and of primary importance while relationships are secondary. Describing a relational ontology, Ross and Mannion (2012) state, "the world is a domain of relational entanglement" (p. 303) and where "learning is a process of 'attunement' to the meanings that inhere in the relationships that make up the world" (p. 304). Referencing Tim Ingold's theory of dwelling, they describe, "ants, humans, stones and mountains are to be understood as knots in or interlacings of relationship, or a 'domain of entanglement'" (p. 305). In this writing, the relational ontology refers to an ecological worldview, wherein all entities are seen as entangled within relationship and those relationships assume greater importance than the entities themselves.

The relational ontology is supported by contemporary Western science, but education, by and large, hasn't quite caught on. As Darcia Narvaez (2016) asserts, "Perhaps the most misleading aspect within Enlightenment philosophy is the conception of the basic human condition, that of individualism, a conception that is untrue on nearly every level of analysis (e.g.

at the quantum level everyone on earth is connected; at the biological level, humans share DNA with virtually every other entity and each person is a community of microorganisms)" (p. 8). From an educational standpoint, having a relational ontology is not an invitation to step into relationship or to "plac[e] relationship at the nucleus of ... pedagogical practice" (Glover, 2019, p. 87), for the individual can no more "place" relationships at the center of teaching practice than the earth can "place" the sun at the center of its yearly circuit. Rather, orienting from a relational ontology within education means recognizing and prioritizing the deeply entangled relationships existing between all things. Understanding the science of interconnection makes it easier to see how the orientation toward individualism has been a choice, rather than a philosophic or scientific fact, as contemporary education tends to imply.

Traditional North American Indigenous education, for example, makes an altogether different choice. In his description of traditional Indigenous education, Gregory Cajete (2016) points out that children first learn about relationships with family, culture, and place (p. 371). Much later, they learn about their individualization, but even then, "a deep understanding of relationship and diversity" are emphasized (p. 372). When European settlers first arrived in North America, several hundred diverse Indigenous cultures existed, each containing unique customs and languages; yet, they all shared deep-seated respect for more-than-humans to whom they felt inextricably bound. The downgrading of individualism and prioritizing of relationship is often evident in these languages which tend to favor verbs and verb forms, rather than nouns. Noun-based languages centralize *things* rather than processes, interactions, and interminglings. Indigenous verb-based languages, such as Potawatomi and Rarámuri, highlight the sentience of plants, animals, elements, and land (Kimmerer, 2017; Wyndham, 2020). A relationship—in the true sense of the word—with a sentient being will naturally be more involved, entangled, meaningful, and complex than a 'relationship' with a non-living object.

These Indigenous ontological orientations are important for settler educators to understand for a couple reasons. First, due to their own lack of awareness, educators can inadvertently make Indigenous students feel uncomfortably different and unable to 'fit in' with expectations. Imagine the experience of an Indigenous student whose well-meaning teacher assumes children can only begin to understand the natural world through understanding Western-style science. This child's entire relational experience as well as their culture is sidelined, if not discarded entirely. Stan Rushworth (2020), who was raised by his Cherokee grandfather described, "In the classroom was where the divisions took shape, in the mind and heart" (p. 9). (It's not only Indigenous students who might experience this. More on this later.) Secondly, the

fact that hundreds of diverse cultures relate to the natural environment of North America similarly, suggests that perhaps the land itself invites certain kinds of interactions and shapes human ontologies. Sheridan and Longboat (2006) explain that the Haudenosaunee (Mohawk) believe all human creativity and solution-finding results from more-than-humans gifting humans with ideas in this shared space of cognition. Referring to the Haudenosaunee creation story, Sheridan and Longboat note:

> As the last being Teharoniawakon created, humans are and remain dependent on all other beings, and whether those beings offer their lives for our nutrition or their sentience for our thinking and imagining, ancient reciprocities continue. We are thankful. Their love of us and our love of them guide our path to that future that replicates and restores antiquity. (p. 366)

Sheridan and Longboat (2006) suggest that "minds and culture mature" with the land and that settler culture is still developing along these lines (p. 366).

6.5. Relational ontologies in educational alternatives

Although my own cultural and formal education could not help me navigate the dark night, other kinds of learning did. These learnings were acquired very much at the fringes of mainstream society. After stumbling upon the *Medicine Cards* (Sams & Carson, 1988) in an alternative bookstore, I renewed my relationship to trees and other more-than-humans. One day, I had a profound and memorable conversation with a homeless Indigenous man which encouraged me to trust my own sense of knowing, despite mainstream epistemologies. Later, in an elective class at a California college, I read about the inherent relationality of individuals, families, communities, war, land, and weather in Leslie Marmon Silko's *Ceremony* (1977) and felt the profound, life-altering sense of relief of one whose worldview has for the first time been articulated and validated.

These experiences awakened something in me that had been largely dormant through my elementary and high school years; I began to actively and deliberately enter the shared non-material spaces of humans and more-than-humans. I felt an open, clear, but wordless communication pass back and forth between a neighboring cedar tree and me. I listened to the wind, the rain, and the coyotes with my whole spirit—not just my brain—with an openness to whatever communications might come. Nel Noddings (1986) wrote that a "psychic relatedness

lies at the heart" of an ethic of care (p. 1). Although her ethic of care doesn't extend to more-than-humans in any meaningful sense, her astute observations that "all caring involves engrossment" (p. 17) "a 'feeling with' the other" (p. 30) aptly describe my own engagement with the land at Last Chance. With a couple of my human loved ones and this specific land, I shared a "psychic relatedness" where communication was fluid and unencumbered by laborious human language. In other words, it was not always necessary to be in each other's presence to know how the other was doing or what they were experiencing.

Additionally, as a woman pregnant with her first child, I was undergoing a profoundly embodied and relational love experience that inherently stands apart from traditionally masculine realms and delineations of reason and the brain-centered education of schooling. A pregnancy, like the act of stepping outside in the night, is an experience of loosening Western notions of linear time. During pregnancy, one steps outside time into an immediacy that is part inheritance, part the memory and the daydream of love, and part invitation to possible futures. In this sense, it is reminiscent of Sheridan and Longboat's notions of "future that replicates and restores our antiquity" (p. 366); a pregnancy is an embodied way of remembering into the future. Kimmerer (2013) asserted, "For all of us, becoming indigenous to place means living as if your children's future mattered, to take care of the land as if our lives, both material and spiritual, depended on it" (p. 9). On the mountain, care for the land—meaning, attending to plants in the garden, respecting the homes of scorpions and rattlesnakes, not going beyond the carrying capacity for water use—was a way to care for the land, myself, and my future child. The three could not be separated.

Pregnancy also lent to another kind of knowing, a powerful intuitive sense likely passed down through generations of attuned mothers. I knew my child before he was born—his temperament, his spirit—the same way I knew his younger sister's later. I could impart things to him and he to me. Admitting this in an academic context means taking the significant risk of being written off as dreamer whose feet have long since floated off the ground. This is part of the 'secret' knowing that I'm aware—without having to be told—that I'm not supposed to talk about. Intuitive knowing is an inherent aspect of relational epistemologies, but in Western realms has always been relegated to categories of superstition, wishful thinking, and fanciful imagination. Could this be because those designing the shape of our academic institutions have little or no experience with genuine intuition? At best, they might chalk it up to keen sensory perception operating just below the level of consciousness. It's true that when one views the world from the standpoint of the isolated individual, genuine extrasensory intuition appears literally impossible.

However, within the relational ontology, the idea that knowing can be shared between mother and unborn child seems logical, practical, and obvious.

6.6. Standard education actively discourages relational ontologies

Standard North American education, however, does not allow for this kind of interconnection. "Intuiting" and "talking to spirits" or the "spirits of the land" are activities relegated to fluffy non-scientific sentimentality and nonsense. Children who—whether through family culture or innate sensitivity—have an intuitive entanglement with the lizard, the red tailed hawk, the wind, or even each other quickly learn to hide, suppress, and ignore this kind of knowing. Blenkinsop and Piersol (2013) call these children "incredibly subtle feelers and responders; they seem to soak up everything that is around them, such that their self is porous and wide open" (p. 55). For them, the process of being in school is as much about learning what one is *not supposed to know* as it is about gaining knowledge. They can experience this in their knowledge of other people or more-than-humans. Regarding children's connections to the natural world, Blenkinsop et al. (2018) refer to suppression of ways of knowing as eco-double consciousness, the act of splitting the self into two halves: the half that is acceptable to the wider society and the secret, suppressed self that knows things through deep relatedness and sensitivity to the natural world.

Boys, in particular, learn that deep relationality is problematic, unmasculine, and unacceptable. Girls can get away with intuitive relatedness and seemingly 'sentimental' and 'irrational' connections for longer. Blenkinsop, Piersol, and Sitka-Sage further suggest older boys actively belittle sensitivity to nature "not only to gain a sense of power over 'nature lovers,' but to enforce the cultural norms of hyperseparation" (p. 351). They continue:

> In addition to interwoven layers of sexism, homophobia, anthropocentrism, and a troubling conformity under threat of violence, their gesture insists that the "voice of the world" (Evernden, 1985) be, and remain, severed and silent by the time of "manhood." Those who have not "matured" along these developmental lines and who maintain a deeper relationship are deemed: emotionally irrational, sentimental, effeminate, naive, or queer. (p. 351)

For young boys and for all children sooner or later, intellectual reasoning and pragmatic sensibility are prized and rewarded in the classroom and beyond the schoolyard. By high school, most North American boys understand that it would be more acceptable to admit to each other that they watch porn every night than to admit to communicating with a lizard, the wind, or a tree.

Desire is permissible, even admirable, in capitalist culture but love, an ethic of care, and intuitive entanglement are not.

Rather than being seen as a gift, an intelligence, deeply relational, intuitive knowledges of any kind are often painfully suppressed by children trying to gain acceptance. My own son, Maxwell (personal communication, 2 June 2020), described battling between acceptable knowledge and unacceptable knowledge in later elementary school and early high school. He regularly perceived things about his teachers that he felt he shouldn't know. He described the acquisition of this knowledge as "like accidentally reading someone's diary." Now a young adult, he recalls this as a period of time when he was uncomfortably aware of being "different" and was preoccupied by "guilt and embarrassment."

Standard education—at all levels—positions us to become unable to know *what we know*, and in this way, we become fractured individuals, severing parts of ourselves for the sake of greater acceptance (Gilligan & Snider, 2018). In his analysis of comparative epistemologies of nature knowledges, Zwart (2008) warns, "The scientific ego has to learn to be on its guard against alluring images and intuitions" (p. 43). With no explanation or definition, "intuition" becomes a forbidden topic, though one might note the hint of gendered bias as both "alluring" and "intuition" tend to be associated with women, not men or the masculine institutions like the academy. To be clear, the personal stakes of off-hand comments such as these are high. The psychic pain of fractured relationships and the deeper injury to the relational self can ripple out across a lifetime in attachment disorders, loneliness, spiritual hunger, and self-doubt.

The rejection of relational knowledges can be understood by recognizing that *agape* (divine humanitarian love) lies at their core and love in all forms is problematic in patriarchal societies. Gilligan and Snider (2018) explain that patriarchy "forces a betrayal of love and then renders the loss irreparable," arguing, "The sacrifice of love is the thumbprint of patriarchy" (p. 16, 33). The boy whose strong sense of care and deep empathy carried him into seemingly forbidden relational spaces with his teacher, must turn away from the teacher emotionally and pretend the loss of that bond was always inevitable. Although Gilligan and Snider explain this paradigm in human-to-human terms, it can be applied to human to more-than-human relationships as well. After my father's explanation of the inanimacy of trees, I abandoned a very real friendship with the maple trees in my yard and accepted that connection was gone forever. The boy who shared thought-space with the lizard, learning ineffable but visceral lessons about what it means to move, react, and experience the world like lizard, turns away from this

relationship and likely ignores the heartbreak caused by doing so. Later, sensing a discomfort from a now unrecognizable source, he may discourage his own children from bonding with the lizards.

Mainstream North American culture allows for love of more-than-humans but with limitations. Pets, national parks, and homesteads, for example, can be loved. However, when that love challenges capitalist goals by turning into protection of rivers, old growth forests, and snowy owls, it can lead to raids and arrests, such as was experienced by the Wet'suwet'en pipeline protestors or even ostracism and violence, such experienced by the Dakota Access pipeline protestors. In contexts like these, claims of 'love for land' are seen as unnatural, unreal, and threatening. When North American companies set up camp in other countries, such as mines in Guatemala or agribusiness in the Amazon, Indigenous protectors of land have been threatened, tortured, and murdered. These protectors are seen as terrorists willfully obstructing the engine of capitalism rather than as warriors acting out of love and orienting from a deeply relational worldview.

6.7. The way forward: an ontological shift in education

If education is to adapt to a new ecological ethos, defined by care and attunement to our natural environment, a shift from an individual-oriented ontology to a relational ontology is an important first step. Beeman and Blenkinsop (2019) acknowledge, "no reasoned argument will ever fully convince homo mobilis out of one ontological space and into another" (p. 10). However, as Savary and Berne (2017) remind, "Almost everyone agrees that people—and the world—have been changed by people loving and by being loved" (xiv). Radical shifts in one's worldview occur because of relationship and, frequently, because of the love inherent within those relationships.

All love is ultimately a walk in the dark, sometimes on a lovely moonlit night, sometimes through a frightening space of danger. Love can involve risk as well as trust, togetherness, entanglement, and unity. The relationship comes first and differentiation comes later. Even when we 'first meet' the other, we are finding our way back to a togetherness—yet unknown, but always already within existence as a potentiality. If we, in North American standard education,

are willing to *regain* this sense, we will all feel less alone, we will better understand innate belonging and the responsibility of interconnectedness that is central to an ecological ethos.

Blenkinsop and Piersol (2013) noted, "as a result of this ontologically different orientation, the more-than-human world speaks to you on a literal level, in its own languages and ways" (p. 52). When I asked the land to show me the way, I remembered the familiar and comforting feel of the path beneath my feet, and with that memory, I felt *pulled* forward as though a force that was beyond me and beyond the land but uniting us both compelled me. I sensed the land sensing me, and that awareness eased my fear. Many months later, with a baby on my hip, I stepped out again into the dense opacity of pure blackness. I didn't have a small orb of a flashlight to bump along a trail and constrict the story to a handful in size, and that fact frightened me. If my baby sensed my unease and started to cry, the chaos of noise would utterly disrupt my ability to sense our way, to sense the shared intuitive space where I could listen for the land to guide me. For his sake, I quieted myself and, as Noddings describes, began "feeling with" the land (1986, p. 30). He remained completely calm and quiet as we trekked through the erased world, the weight of him on my hip suggesting a relaxed mood. He *knew* this land in the cells of his body, in his lungs, with his love, with the love we all shared in that space.

Note

I gratefully acknowledge that Last Chance belongs to the traditional territory of the Ohlone people. I further acknowledge that while I write this chapter, I sit on the traditional territories of the Tsleil-Waututh, Squamish, Sto:lo, Stz'uminus, and Musqueam peoples.

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Chapter 7.

Knowing the Unknowable: Visions of Troubled Lands

Preface to Chapter 7

Building on the personal and local narratives of previous chapter, this chapter pans wider to explore additional possibilities of learning through love, such as clairvoyance, distance support, self-protection, and protection of others regardless of geographic distance. In this chapter, animal research is used to support the eco-spiritual perspective that love epistemologies are readily available to all of Earth's inhabitants.

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7.1. Abstract

This paper describes the author's clairvoyant visions of war and personal experiences of transrational knowledges. It is an account of one Westerner coming to know outside of and despite Western episteme. Transrational knowing was modelled by companion dogs in the author's childhood and literary figures in early adulthood, and was experienced as a means of self-protection. Western culture fosters skepticism about transrational knowledges, such as psychic visions and telepathic connections. This paper asserts that transrational knowing—

whether between humans, other species, or humans and other species—is a valid and readily available form of knowing that exists outside of and in spite of Western episteme. Western understanding of the nature of being, the nature of relating, and the capacity for knowing has been reduced by a particular form of material-oriented rationality that is overdue for re-envisioning. Despite pervasive epistemological pressures, some individuals experience and learn to cultivate seemingly alternative ways of knowing. In doing so, they are turning toward knowledges that arise from an illuminating love and, thus, can be subtle, variable, and highly contextual, unlike knowledges that arise from intellect, which tend to be consistent and predictable. The illusory perception that humans are fundamentally separated from each other and from more-than-human kin constitutes one form of fragmentation that has resulted in ecological and humanitarian disasters. Love, on the other hand, links us with others in ways that both relate to and transcend materiality and the five senses.

7.2. Transrational Knowing and Clairvoyant Visions of War

In the early months of Russia's invasion of Ukraine on February 24th, 2022, glimpses of the war appeared in my mind. *A mother holds her child's hand as they are made to walk through a smoky street; she knows they have no choice. An adrenalized man running through a building with comrades does not immediately realize the bomb blast behind him will end his life. A woman stands on the threshold of her beloved apartment with only minutes to decide if she will leave it—possibly forever.* These were not scenes relayed by news media and replaying in my mind. Rather, they were original, fleeting, unannounced, and out-of-context. Like scenes from a movie, they played out in vivid detail for a few seconds before vanishing. Unlike a movie, the emotions and thoughts of individuals I witnessed were revealed with seemingly impossible intimacy as I observed from both inside and outside these individuals. These multi-sensory visions arrived in the between spaces, such as between waking and sleep, while driving between this place and that, or in moments of not-doing, those ordinary pauses of daily life.

Here are the details of one vision:

> *After being tortured—once again—a POW (Russian? Ukrainian?) has been half-thrown back into a dark space functioning like a cell, where he is now sitting and slumped against what may be a dirt wall. The banter and fleeting laughter between the captors is hard-edged. This POW does not expect humanity from them. A second POW shares the space, but he is in worse shape, no longer able to sit up,*

> *groaning, and incapable of communication. The first POW has no intention of making a connection with him. With the captors guarding the door and more captors stationed beyond, the POW also has little thought of escape. Instead, his thoughts turn to his own death, which he feels will be imminent and inevitable. Fear and physical pain are present, but his primary focus is aloneness and regret: He has a mother and a sister left behind and seemingly far away, unaware of his condition. He thinks of them now, in this moment, wishing he could go to them, see them again, wishing he could tell them he loves them. He suffers most from feeling alone, far from the ones he loves.*

I was at home in Vancouver, Canada, when this scene came to me. I might have been in my bedroom folding laundry—and paused—to observe as the scene came through. Immediately after, I replayed it in memory, studying the parts. In addition to the emotions I felt *with* him (aloneness, regret), I felt many emotions *for* him (frustration, worry, love). Most of all, I wished to express to him that *he was not alone*; I was there with him, sensing, experiencing, and feeling alongside him.

How did I come to witness this and similar war scenes? These visions contain a vividness, a resonance that I have learned to associate with intuitive knowing. Decades of spontaneous perceptions similar to these have shown me that my intuition tends to reflect real-world occurrences. When scenes arrive with a particular crispness, in an out-of-the-blue manner, and during between moments when I'm in a particularly open, uninvested state, more often than not, they appear rooted in real-life events. In these war instances, I believe I am clairvoyantly experiencing actual real-life events in real time. While some readers will deny the veracity of these visions, others might accredit them to unique talents they imagine I possess. In my opinion, both views are problematic and limit ontological and epistemological understandings, as explained below.

In this paper, I assert that this form of extrasensory intuition—this transrational knowing— whether between humans, other species, or humans *and* other species—is a valid and readily available form of knowing that exists outside of and in spite of Western episteme (Radin, 2006). Furthermore, the existence of transrational knowing may point to important clues about the nature of relationality and offer valuable "epistemological stretching" amidst a time of ecological and humanitarian crises (Harmin et al., 2017, p. 1490). In fact, reactions to transrational knowing, including telepathic phenomena, highlight aspects of our Western ontological and epistemological orientations that are overly constrained. That is, Western understanding of *the nature of being, the nature of relating, and the capacity for knowing* has been reduced by a particular form of material-oriented rationality that is overdue for re-

envisioning. Part of this re-envisioning means reconceptualizing the nature of human relationships to other humans, to more-than-humans, and to the earth itself, and their relationship to us—a process that will not only explain and allow for more transrational knowing but may also foster greater responsibility.

In essence, the question, "how do I come to witness these war scenes," leads down a path from information to epistemology, and from epistemology to ontology. Transrational knowing is not constrained by the physical realities of this earthly world as standard science curriculum has explained them. Nor, I assert, is transrational knowing governed by the mechanisms related to human biology, psychology, or even human consciousness; it is, instead, governed by love and the realities of the universe (rather than earthly realities). While this illuminating love has been helpfully interpreted and framed through the lenses of religion, such as Daoism (Lin, 2020), Islam (Khel, 1982), and Christianity (Chardin, 1817), I suggest that these religious traditions are converging upon a reality, and, as such, this reality can also be encountered independent of religion.

This paper describes the author's personal experience of illuminating love and a selection of the resulting transrational experiences. It is an account of one Westerner coming to know outside of and despite Western episteme. While the pathway between Western science and transrational experiences remains obscured in fog (possibly permanently), I gesture to potential bridges while identifying science's impediments to comprehending transrational ways of knowing. In writing this paper, I align with Barrett (2013), Harmin et al. (2017), and Yang et al. (2019) in calling for additional ways of knowing. As the world veers into catastrophe—climate crisis, the current threat of nuclear war, and innumerable additional tragedies—our capacity and willingness to *know* and *relate* in more expansive, connected, and lovingly responsible ways may help us find an exit ramp.

7.3. Episteme and the Inaccessible Knowledges

Foucault used the Greek term *episteme* "to name the set of conditions which enable something to be known" (Episteme entry, Buchanan, 2018). Some of these conditions include language, power structures, and the societal values imparted through public education. Despite these broader social contexts, personal contexts may enable individuals to "know otherwise" (Mozely & McPhillips,

2019). These personal contexts may relate to ethnicity, family values, personality traits, and relationships with the natural world. These additional ways of knowing might include psychic dreams, precognitions, telepathy, clairvoyance, intuitive interspecies communications, or other transrational ways of knowing.

Western societies, governed by principles of materiality, linearity, and individualism, tend to ignore these transrational knowledges and their potentials. Yet as Dean Radin (2020) clarified, “materialism is a set of assumptions rather than an absolute truth” (p. 85). People who appear to “know” beyond the epistemological boundaries of an era and locale may be seen as mentally and/or emotionally unstable, as prone to “embellishment, wishful thinking, sensory illusions . . . psychopathology delusion, ignorance, and fraud” (Radin, 2006, pp. 245-6). Even children understand that venturing beyond normative epistemological boundaries—for example, by intuitively communicating with other species—puts them at risk of social exclusion or even ridicule (Blenkinsop & Piersol, 2013; Kuchta, 2022).

The sociocultural constraints of episteme are so strong they can even lead to self-repression. Radin (2006) explained that in laboratory tests of psychic intuition, devout skeptics “systematically hit below chance expectation, thus supporting their desire” to avoid acknowledging psychic phenomena (p. 269). In Jeffrey Kripal’s analysis of scientists who have made the “flip” to belief in paranormal phenomena (2019), he insisted an extraordinary firsthand experience with the paranormal was essential in launching people past their rational barriers. He added, “One cannot think or reason or experiment one’s way there” (p. 70). Indeed, I only believe the snapshots of war reflect real-world events because I have repeatedly experienced the veracity of past intuitive knowings (as explained below).

Referencing other researchers, David Vernon (2020) concludes that the evidence is not scientifically problematic; rather, the topic itself is seen as problematic. Indeed, in laboratory settings, psychic experiences, or psi only slightly enhance knowing, yet the chances of these laboratory-controlled incidences resulting from mere coincidence are estimated at 1 in 10^{104} – that is less than one in a googolplex, an unimaginably large number (Radin, 2006). In other words, even by Western scientific standards, it is exceedingly unlikely that all psychic experiences are entirely imaginary. Vernon (2020) explained that psi research is underfunded, held to higher standards than those expected in other psychological fields, and excluded from most scientific journals due to mainstream disinterest in the topic. Thus—in a negative feedback loop—the topic remains out-of-view which further contributes to public dismissal (Vernon, 2020). However, even

from mainstream scientific standards, it seems strange to overlook the study of psychic phenomena given the sheer prevalence of Westerners who claim to have experienced it (Knittel & Schetsche, 2012; Newport & Strauss, 2001; Radin, 2022). Outside the somewhat unpopular subfield of parapsychology, psychic knowing is rarely discussed at all. In education, topics such as telepathy and clairvoyance infrequently appear.

What educative possibilities might we miss by this oversight? Academics who study intuitive interspecies communication (IIC) provide some clues. They have recently begun exploring the way IIC can promote human healing (Erikson, 2022), interspecies justice (Barrett et al., 2021), and non-anthropocentric research methodologies (Wijngaarden, 2023). Furthermore, a shift toward transrational knowledges shifts the way we understand ourselves as humans, the stories we tell about ourselves and our relationships, and the philosophies that guide our practices. This shift turns us toward an *experience* of interconnection and the resulting awakening of greater responsibility for and bonding with each other.

7.4. Knowing Differently: Learning from Dogs

Particular conditions in my own early life at least partially supported transrational ways of knowing. My childhood family infrequently acknowledged but readily accepted certain forms of psychic awareness, such as between dogs and their human companions:

> *Our family dog, who adored my father, would wait at the window anticipating his return approximately half an hour before he arrived—even on rare occasions when he arrived hours early. My mother and I witnessed our pug, face to the glass pane, whimpering hours ahead of schedule and then my father unexpectedly arriving home. My parents smiled with amusement as my father ruffled our pug's ears. 'He's very attached to your father,' my mother would comment.*

My father was a realist, an engineer by training, and not at all prone to superstition or wishful thinking. If someone had labeled our dog's behavior as "psychic," he likely would have dismissed it; this wasn't light-headed, make-believe stuff—this was just down to his deep bond with our dog. Because of this context, I understood this intuitive closeness as endearing but not shocking or unbelievable.

Another story about an intuitive dog proved so important that my grandmother wrote about it in her memoir and told my mother, who told me:

> *A 'much loved' German Sheperd, the companion to a British couple, was brought down to Vancouver and boarded in a kennel while the woman stayed at a hotel for a few nights. Her husband was still packing up their belongings from the Chilcotin region and would join them in a few days. But one night, the normally 'quiet and well-behaved' Sheperd 'caused a great commotion' with nonstop barking at the kennel. Alarmed, the kennel vet phoned the woman in the middle of the night. No one knew at the time (except it seems, the Sheperd), but the woman's husband, who was hundreds of miles away, had been caught outdoors that night in an unexpected cold snap. He was found frozen to death the next day (Buckley, 2018, pp. 102-3). "But how did the dog know?" I remember asking my mother. "I think Jack was just really close to his dog," my mother explained.*

The Shepherd came to know about his human companion's life-threatening situation because their mutual love transcended the ordinary senses.

But how? The Shepherd and pug were not operating from a material and individualistic worldview (because, yes, dogs have understandings of the world, too). Instead, they seemed to exist in a world where relationship is primary and love is the element of connection—telepathic or otherwise. Experts from diverse fields have converged on this same discovery. Eben Alexander (2012), a neurosurgeon (and devout rationalist until his own profound transrational experience—a near death experience) asserted:

> Love is, without a doubt, the basis of everything . . . This is the reality of realities the incomprehensibly glorious truth of truths that lives and breathes at the core of everything that exists or that ever will exist, and no remotely accurate understanding of who and what we are can be achieved by anyone who does not know it, and embody it all of their actions. (p. 71)

Penelope Smith (2008), one of the world's foremost teachers of intuitive animal communication, tells her human students that telepathic communication is "an inborn capacity of all species, including humans" (p. 15). She explains, "telepathic development is not a matter of developing some new power through mental exercises. It is more a matter of opening up to love" (p. 15). Teilhard de Chardin (1817) put it more simply: "Love is the primal and universal psychic energy" (p. 4). Through a deeply relational view of the world and an intense bond of love, these dogs were seemingly able to know what was otherwise unavailable through rationality and the ordinary senses.

7.5. Knowing Differently: Safety and Self-Care

Sensory perception and rationality also constituted an insufficient means of securing my own safety. In brief, due to particular repeated experiences of childhood, I understood myself to be persistently at risk of physical and emotional dangers. Consequently, I deliberately tried to expand my awareness to perceive events, people, and intentions even from a distance of kilometres or days. *Where is X right now? What is X's mood?* Because of my vulnerability as a child, I was often unsuccessful in securing my safety, but the effort felt instinctual.

After an assault in early adulthood, I was diagnosed with PTSD and spent a year in a constant state of fear. With nothing else to guide me and suffering from severe vulnerability, I turned in earnest to my intuition for direction. Multiple times a day, I tried to expand my awareness to intuit circumstances distant from me in time and space. Intuition was, I felt, the only flashlight I had through that year-long nightmare. For example, I might ask:

> *Who is on this trail? Is it safe to walk here? A flash of an introverted elderly man crossed my mind. Twenty minutes later, I encountered him, sauntering toward me, absorbed in his thoughts.*

Sometimes, I overruled intuition with reason:

> *Is it safe to pull over and fill up with gas? A nagging worry chewed at me. My heart started to race. But I could see for myself that the gas station was empty. I scolded myself for being paranoid and pulled over. Moments later as I was filling my tank, a truckload of cat-calling men drove up.*

My healing resulted, in part, from an increased trust in my own intuition since, over and over, it proved accurate. Verifications occurred every week. If I tried to know, I would know. This kind of protective radar enabled me to choose more selectively what I experienced and avoid unwanted experiences. I experienced this knowledge as readily available as long as I asked. Typically, I placed my hand on my upper chest, a practice that originated from a need for self-comfort, and asked quietly inside myself: What will tonight be like? Who will be there? What are so-and-so's intentions in wanting to meet me? Most of these intuitions arrived as a feeling, but I also experienced precognitive dreams and telepathic messages. Importantly, even though the need to know originated from fear and a sense of danger, the ability to know seemed rooted in self-care and self-protection.

Around this time, however, I found another kind of verification of transrational knowing in my college literature classes. Despite cultural differences from myself, the characters of books,

such as *House of Spirits* (Allende, 1982), *Love Medicine* (Erdrich, 1984), and *Ceremony* (Silko, 1977) shared many of my transrational experiences, along with some I had never imagined. Like me, those characters also had to learn to manage these intuitive knowings. It seems the function of fiction is often to express unsanctioned phenomena and concepts that the dominant culture has ignored and exiled.

Ultimately, my familial environment, personal intuitive experiences, and literary experiences showed me ways to live in a world where stories, rationality, and transrationalities wove together. The basis of the rational and sensory world, I learned from dogs, is love and relationality. The world cared about me and supported my need to protect myself by allowing me to glimpse near futures. The intuitively inspired characters of novels revealed cultures where rationality and transrationality could weave into each other. These models and experiences helped me navigate beyond the contemporary episteme to know the seemingly unknowable. Over time, I eventually learned to use intuition with less persistence and urgency for more light-hearted, amorous, or humanitarian intentions and to grasp some of the failures, ethics, and pitfalls of transrational knowledge, too (a topic for another paper).

7.6. The World as Relationship

Perhaps a primary reason many Westerners respond to hearing about telepathic visions of war as something strange or suspect is due to cultural assumptions about the nature of reality. If a society orients from the ontological stance that individuality and the fundamental isolation of entities are the essential nature of the universe, the capacity for telepathic knowing seems extraordinary, inexplicable, and unbelievable. The Western ontology of individualism leans heavily on Enlightenment conceptions of rationality and natural law as governed by the known material world. How could someone possibly *cross over* the divide between us and know things without sensory data available to the individual self? However, the individualism ontology is only one option and, it increasingly appears unscientific even by Western scientific definitions. The rapidly evolving field of quantum science reveals that many of science's previous assumptions about time, matter, and energy were incorrect, or at least, incomplete (e.g., Malin, 2012). Furthermore, biological and philosophical studies in posthumanism (e.g., Bolter, 2016) and transhumanism (e.g., Barad, 2015) also highlight the ways Western science's previous assumptions about identity

and independence have been inaccurate. These fields highlight the fallacy of separateness from which Western cultures operate.

Here, a clarification of individual versus relational ontology may help. The independent being—whether human, tree, or stone—as conceptualized by Western societies is viewed as an entity or object fundamentally separated from other entities/objects but capable of interactions with others. In contrast, the relational ontology, as I define it, weights it the other way. Although we are unique and autonomous individuals, the apparent separations between us are illusions born of material individualism; the most fundamental nature of existence is that of relating—being in relationship. Chris Laszlo et al. (2021) explained the relational ontology in the context of a quantum worldview: "Relevant (in the sense of addressing the challenges society faces) worldviews need to draw from both very recent science and very old spiritual and Indigenous conceptions of a world that is complex, emergent, interconnected, inherently relational, dynamic, and entangled" (p. 294). Being in relationship (relating) and sharing understandings are fundamental aspects of existence whereas being primarily isolated and limited to the relationships and sharing our material bodies permit us a cultural illusion. (These sentences falter in articulating relationality since the English language inherently orients toward individualism.)

Consider, for example, that every being in existence evidences a prior relationship. Broadly and in brief, each person is the (secondary) manifestation of a (primary) relationship—however characterized—between a biological mother and father and the long line of ancestors before them. Each person evidences generational relationships to land, water, plants, and animals that have nourished and allowed for the growth of our bodies just as they nourished our ancestors. The beech tree outside of my window evidences human migration and fondness for particular tree species, and it evidences ancestral, arboreal relationships to soil, rain, and wind. A nearby rock evidences the relationship between sediment (including soil, plant, and animal debris) and pressure. We are—all of us, rock, tree, and human—temporary material manifestations of individuation resulting from ongoing entanglements. Our culture has simply chosen not to conceive of relationality as primary and fundamental. And, we have prioritized the material— the physical—above all else, a perspective that inherently limits the possibility of experiencing something beyond the physical. Seen from an ontology of individualism, it is possible for me to work to know someone, to work to understand their experiences by using my brain and senses to overcome our differences and distances. From a relational ontology, I need only shift my focus from the temporary embodied *me* to the more enduring shared space of *(me)we* to perceive, comprehend, and to some extent, *share* the experiences of a being temporarily arranged in the

physical form of a human, tree, or stone. From this perspective, telepathic knowings become much more intriguing and their pathways more conceivable.

In fact, growing research in animal psi *(anpsi)* (Erikson, 2011) has begun to evidence precognition in dogs (Sheldrake, 2000) black planarian worms (Alvarez, 2016), and Bengalese finch (Alvarez, 2010) along with telepathy in horses (Erikson et al., 2022). Additionally, other phenomena experienced by more-than-humans, are still unaccounted for by conventional scientific rationale, such as the *Phycomyces blakesleeanus* fungus's inexplicable ability to avoid touching nearby objects; Merlin Sheldrake (2020) noted, "Despite decades of painstaking investigation, the avoidance response remains an enigma" (p. 58). While the fungus's avoidance response may or may not be related to precognition, intuitive interspecies communication, or other transrational ways of knowing, it reminds us we have much yet to learn about epistemological realities. Animal psi studies are still few in number, yet they already hint that psychic ability may not unique to humans—or even to specific individuals within a species. Alluding to the forces of episteme, Penelope Smith (2008) stated, "Since animals are not forced into the idea that words or symbols are the only or ultimate way to communicate, they do not lose their innate telepathic sensitivity and ability as most humans do" (p. 10).

In recent decades, quantum science has begun to illuminate theories and scientific properties that may enable transrational knowing. In *The Self-Aware Universe*, Goswami and Goswami (1993) asserted that "consciousness, not matter, is the ground of all being," and that this understanding can offer the West a new worldview—a much-needed paradigm shift, capable of uniting science and spirituality (p. 2). Goswami (2023) acknowledges "some conflict between quantum physics and the theory of relativity" but theorizes that a domain exists beyond space and time (p. 2). In *Entangled Minds*, Dean Radin's (2006) robust meta-analysis of global psi research explained transrational knowledge (precognition, remote viewing, telepathy) as quantum entanglement within the human mind. The emerging theory of our world as a hologram (Overbye, 2022) of a *realer* world might be used to explain quantum entanglement as well as experiences of a universal totality, material unreality, telepathy, and other seeming impossibilities of transrational knowing (Varan, 2017).

By and large, scientific reasoning is an immense gift to humanity, and yet we must allow contemporary science to stretch to fit reality rather than insisting reality shrink to fit the science. Some of the current values of scientific validity—objectivity, replicability, rationality— may in fact be obstacles to this stretching. How could deep mutual love or genuine threats of danger be

brought into the laboratory? Ultimately, science's brain-based approach may limit scientific understanding of transrational knowledge. Science—a valuable tool for learning— could also be a gatekeeper preventing the admission of expansive, relational knowledges. Moreover, this science has originated from an earth-centered perspective, and understandings of beingness, relationship, and knowledge that appear "true" or "real" from Earth, could, in fact, prove to be quirks or outliers in the context of the broader universe.

7.7. Relating Through Love (and War)

Although the visions of war I experienced arrived spontaneously at various, unexpected times of the day and over several weeks, a process preceded them; I felt deep care and concern—and *love* for those involved during these early weeks of war when the visions arrived. With this feeling, I leaned out psychically, with curiosity, support, and openness. Recognizing that news media is not always reliable, I asked: *What is the real situation? What are people actually experiencing in Ukraine?* Although I asked the question generally, over the period of weeks, perhaps this is similar to what our family dog did in order to anticipate my father's arrival: *Where is my human right now? What is he doing?* For all the beings—human and animal—that I personally know, love in some form is the central aspect of psychic attunement. This love may come in the form of care, ardour, compassion, devotion, companionship, etc. The love may, for example, be motherly or rooted in a desire to heal or orient from a sense of protectiveness.

Ancestral love may even play a role here, for I have now learned that all my father's relatives—his uncles and aunts, cousins, and grandfather—were killed or exiled by Russian invaders in the Ukraine during WWII. During that time, many of my ancestors would have experienced the same agony as the Shepherd stuck in a kennel while their loved ones were dying. Divine threads of love may have woven them together, shimmering and illuminating for them some of the seemingly unknowable statuses, locations, and suffering of their loved ones. Perhaps, the echoes of past love and loss make more audible the current tragedies. Perhaps too, the land itself reverberates to call home those who have been exiled or their descendants and enhances transrational knowings of place.

Theoretical physicist David Bohm (1980) asserted that the nature of the universe is a *whole* despite evidence of fragmentation. Bohm asserted that war is one example of

fragmentation that occurs when humans are “guided by illusory perception which is shaped by fragmentary thought” (p. 9). The illusory perception that humans are fundamentally separated from each other and from the other inhabitants of earth constitutes one form of fragmentation that has resulted in ecological and humanitarian disasters. Love, on the other hand, makes evident the connections—perhaps forgotten—that existed between us all along. When people define love, they commonly refer to the heart, the centre of emotion. This reference, however, limits the experience of love to those beings who possess a physical heart, thereby disregarding the potential love experiences of sunflowers, stars, starfish, the land itself, or the world as a whole. In reality, love that originates in the human “heart” fumbles as much with love as the physical brain does with knowledge (another topic for another paper).

Here, I’m speaking of the love that is built into the very fabric of existence and, thus, touches everything within the universe. Love of this kind can potentially facilitate the return to wholeness. My own experiences of transrational knowing suggest that love links us to others in ways unconnected to materiality and the senses. But the kind of love I’m speaking of is not rooted in biology or culture and is not limited to humans or even Earth. This kind of love appears largely beyond the scope of contemporary science that homes in on neurobiology and magnetism. The kind of love promoting transrational knowledge prompts us—the Sheperd to his human—me to suffering Ukrainians—to shift into the relational space, which might sound a little like: *You are not alone—I feel with you—I feel (me)we in this experience; you are not abandoned— (me)we share this moment*. If we know this, accept this, we can also see how love is available, even or especially in the worst moments, as a way out of established epistemes, providing knowledge that is unavailable through ordinary, sensory means. Seen from the relational ontology, the question is not “How do I come to know about those suffering in war?” but rather “How could I *not know*?” And now that I feel I do know, I don’t need to continue to glimpse the war. I can continue to feel and emit the love that attaches me to those suffering in war, and hope that love in some way, subtly or concretely, reaches them. This love, this felt connection between us, might guide my own daily actions toward peace, a peace that ripples out into the world in whatever small way.

As we shift from the individual ontology to the relational one, we can acknowledge our connection to the tragedies of war and ecological crisis, renew our responsibility for the tragedies we ultimately share, and, we hope, renew our understanding and response to each other’s needs. We can understand that we too have not been alone in our suffering, that other humans and more-than-humans have sensed us, offered psychic support, and even guidance. I have felt this kind of support many times in my life—from maple, beech, and cedar trees, from stones, deer, dogs,

ravens, and other humans. We can recognize that nonhuman entities— elephants, aspens, river microbes, and photons—are likely communicating, supporting, and offering guidance where they can to one another—and perhaps us—as we all transition through this challenging time of Anthropocene.

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Chapter 8.

Forest Mind: A Field Study on the Role of Love in Intuitive Interspecies Communication

Preface to Chapter 8

Whereas in previous chapters, I have described my own past experiences with transrational ways of knowing through love, this chapter summarizes my attempt to research forward, that is, to see what learning might come from planned transrational experiences. This research illustrates how love epistemologies can be ecological and relationally healing.

> *"Trees offer us the solution to nearly every problem facing humanity today . . . They do so even when we can't or won't hear them. We once knew how to listen. It is a skill we must remember" (Diana Beresford-Kroeger, 2019, p. 3)*

8.1. Intuitive Interspecies Communication as Re/Emergent Way of Knowing

Intuitive interspecies communication (IIC) is an ancient and reemergent, transrational way of knowing with promising implications for ameliorating environmental destruction and healing troubled humans. MJ Barrett et al. (2021) explained:

> IIC presents as a detailed, non-verbal and non-physical form of communication between humans and other animals. Drawing on a diversity of intuitive capacities, IIC includes the mutual exchange of visceral feelings, emotions, mental impressions and thoughts, embodied sensations of touch, smell, taste, sound, as well as visuals in the mind's eye. (p. 151)

In my research, IIC also includes communication with plants, including trees, and other nonhuman beings. IIC with trees differs from but may overlap with other forms of

communication that occur between trees and humans. For example, plants can communicate through an appeal to our five senses, with "cues and signals" with their material bodies, such as signaling with color, scent, or taste that their fruit is ripe (Schaefer & Ruxton, 2011, p. 3). IIC with trees may be influenced by some of these cues but is in no way dependent upon them.

IIC in some form has been a part of many Indigenous cultures around the world. The Dagara of Western Africa believed creeks, trees, and animals might be ancestors, that is, part of the "great ensemble of spirits" available for us humans to connect with (S. Somé, 1997, p. 14). Foster and Thiyagarajan's (2012) movie, *The Animal Communicator*, explained how Indigenous peoples from Australia to Africa to the Americas have used forms of IIC to intuitively track and hunt animals. Robin Wall Kimmerer (2021) explained, "The Indigenous story tradition speaks of a past in which all beings spoke the same language and life lessons flowed among species. But we have forgotten—or been made to forget—how to listen" (p. 424). Speaking of her Celtic ancestors, Diana Beresford-Kroeger (2019) described:

> To the Druidic mind, trees are sentient beings. Far from being unique to the Celts, this idea was shared by many of the ancient civilizations that lived in the vast virgin wildwoods of the past. The Celts believed [. . .] certain people were more attuned to the trees and better able to perceive them. There is a special word for this recognition of sentience, *mothaitheacht*. It was described as a feeling in the upper chest of some kind of energy or sound passing through you. (p. 80)

Rather than viewing these intuitive communication traditions as arising from human cultures, we might recognize them as opportunities offered to receptive human communities by more-than-humans around the globe.

Thanks to the work of numerous scholars, the field of IIC is becoming populated with informative analyses of IIC processes (Barrett et al., 2021; Abbott, 2021b), successes (Erikson et al., 2022; Janák, 2022), and personal experiences (Chenard, 2022; Kincaid, 2022). Regarding plants, IIC is currently being used to reduce pests on orchards (Von Diest, 2023); to co-design scientific plant research (Gagliano, 2018); to develop tree ethnographies (Abbott, 2021); and to better inform governmental land practices (Copper Jack, 2023). Broadly, IIC sits within the larger field of intuitive inquiry which ultimately "seeks to find trajectories for new ways of being human in the world" (Anderson, 2004, p. 330). Even scholars not directly involved with IIC seem to sense the intuitive potential of spending time with trees. For example, Kimmerer (2021) described that her "science brain and [her] intuitive brain are both alight with knowing" in the presence of a

tree (p. 423). Kimmerer ventured that perhaps the pine tree aesthetics or terpenoid vapours or electrical charge or sounds produce "an altered state of tranquil alertness" (p. 423).

My own fieldwork aimed to determine: *What is the role of love in IIC?* and *How might love enable IIC with trees?* This project focused on emergent, relational knowledges, where "knowledge" included cognitive, embodied, affective, spiritual, and relational growth. The research focus was primarily on the *how* (processes) of relational knowing rather than the *what* (data) of relational knowing. I have been communicating intuitively with trees since before I "learned" this was not an accepted way of knowing (Kuchta, 2022). Those early experiences of IIC were defined by a shared warmth of feeling rather than by some unique mental skill. With this background in mind, I became curious about the role of love in IIC. My own research finds a home among other IIC practitioners and researchers who communicate with plant species, all of whom comment on the role of love. For example, Rachel Strivelli (nd) reports that trees speak of "embodying unconditional love" (p. 27) and that when they invite humans to them, the invitation is "to a moment of beauty, love, and even pleasure" (p. 28). Sarah Jane Abbott (2021) also speaks of the "unconditional love from trees" as a primary theme that emerged from her IIC research on tree ethnographies (p. 73).

As Kimmerer (2021) noted, "people are only one manifestation of intelligence in the living world" (p. 424). We are also only one manifestation of love. Relearning and being receptive to the love of our more-than-human kin can reignite our own unique human capacity for love because, as O'Donohue (1997) reminded us, "Love is our deepest nature, and consciously or unconsciously each of us searches for love" (p. 9). He continues, "We do not need to go out to find love; rather, we need to be still and let love discover us" (p. 9).

8.2. Methods

Emergent eco-love methodology

Over the summers of 2022 and 2023, I conducted fieldwork by practicing intuitive interspecies communication with trees. This resulted in 20 formal IIC sessions, and numerous informal sessions, that included Beech, Birch, Basswood, Willow, Elm, Horse Chestnut, and Douglas Fir trees, along with skunk cabbage, a robin, chickadees, a leafhopper insect, crows, ravens, and river

boulders, and two forests. With the guidance of trees, my own intuition, and other more-than-humans, I developed an emergent eco-love methodology. While the first and second sessions began with me simply wandering, by the third session, I realized I wasn't entirely wandering—I had some subtle sense of being called. I followed this sense more deliberately during subsequent sessions. In this way, the question "who is calling me?" became synonymous with "where should I go?" In asking these questions, I engage in a form of open awareness that is whole being rather than brain-centered. This process may be akin to the *meander knowing* (Beeman & Blenkinsop, 2008) experienced by Anishinabe Elder Michael Paul, described as "reduced directing of knowing, a receptivity to what the 'other' (in this case the natural world) brings, a lateral breadth of awareness and an attunement to the unexpected and rationally unexplained intuitive mode of knowing" (p. 17). For me, being able to hear "the call" also meant being in a lighthearted, almost playful state, as though waiting for a phone call from a favorite friend.

Between the eighth and tenth fieldwork session, I became subtly aware that I was using luminosity to help me discern who was calling. For example, on the tenth session, I felt called to a particular forest and down a human-made trail until I eventually arrived by a creek. But looking around, I could not discern who called me to that spot. Without consciously realizing it—until I saw it—I was looking for light, a kind of radiance, as the evidence of who was calling me. Eventually, I "saw" it in the river boulders. This "seeing" is visual (while searching, I might be momentarily distracted by something "bright" in the typical sense) but slightly different from ordinary seeing (the matte grey boulders by the creek emitted less ordinary light than sunlit trees or the twinkling creek water).

When I've found who is calling to me, I settle myself on the ground nearby and take some time to arrive by observing and appreciating it with my senses. While doing this, I open to it; meaning, I open my auditory periphery and my own sense of self shifts from my brain to somewhere deep inside my chest, and I feel an instant, easy unconditional love for/with the tree and an empathetic bond with it. In this open and wordless state of connection, I am available to the tree if the tree wants to communicate anything. Similar to spending time with a close human friend, we might share communication or simply be with each other in comfortable and companionable silence.

Certain factors hampered intuitive connections, such as weather, my energy levels, and time constraints. Also, my own relational wounds (explained below) posed a significant obstacle. At times the noise of the human world (voices, vehicles, construction) was so loud it took great

effort to overcome. However, excessive concentration or focus created its own distracting noise. On the other hand, in some particularly loving, open moments, I felt intuitively overloaded by so many beings wanting to communicate. For example, after several days attending an online IIC symposium, I walked outside one evening feeling rather like Snow White, with all the animals in the neighbourhood—birds, squirrels, cats, and a racoon—seeming eager to be close to me. On this and many other occasions, I had not planned on doing fieldwork and wrote no notes. Some trees that drew me appeared to have nothing particularly to say and we just enjoy each other's company. When I asked one Chestnut tree why it welcomed me in, it replied that it "recognized a kindred spirit." Future investigations might examine what differences exist between IIC with indigenous versus non-indigenous tree varieties or why/whether particular types of trees are drawn to particular humans.

Ethical Considerations

Because my methods involve responding to a call from a friend-like other, the ethics of my fieldwork differ from others IIC researchers. For example, responding to llama needs and requirements in her own study, Keski-Korsu (2022) lined human participants along the llama fence and allowed the "guardian" llamas to sniff their hair before entering the enclosure (p. 46). Abbott made tobacco offerings to trees and forests "to greet, recognise, respect, and give thanks for their continual presence and work on the planet, as well as for their participation in [her] research" (p. 36). My own process was neither formal nor permission-based. Nonetheless, the feeling of openness, the intentions, with which I began each conversation could be translated as: *What would you like me to know? What can I do for you?* My relationship with trees and other more-than-humans in this study was most akin to intimate friendship, but friendship with touchingly generous, wise, and loving beings from an entirely different culture. Consequently, I approached them with loving respect, gratitude, trust, and a willingness to relate deeply and serve. I honour the tree beings, their communities, and the other beings who participated in this research, yet this honouring is not submissive or worshipful. More accurately, the trees and I come together in mutual companionability to worship the light/love that is beyond but part of us both.

8.3. Findings: Challenges, Healing, and the Role of Love

Fieldwork design was not readily conducive to IIC

Although I designed this project myself, I quickly learned that doing this unconventional fieldwork (IIC with trees) in a somewhat conventional format (written fieldwork notes documenting qualitative data) created some inherent contradiction and tension. One can hardly study the art of sitting by running a marathon or recreate the likeness of clouds with lead. Similarly, I discovered that the hyper-analytical, objective, and brain-centred task of recording field notes was at odds with the intuitively-perceptive, feeling-with, and wholistic state of intuiting with trees. I was literally inhabiting different parts of my being (brain vs. chest/whole self) and trying to frenetically transition back and forth between them. But frenetic-ness too is at odds with the deep, slow, peaceful state of IIC or even the subtle sacred and playfully light and, at times, fleeting quality to the communication. Similarly, the task of translating communications to the English language ran counter to the open, accepting, experiencing-with state of IIC. The translation involves focused evaluation while IIC necessitates expansive non-judgement. This was the first hurdle I encountered: *How can I record field notes when the act of recording them inhibits the process I am recording?*

My ability to transition between these states did improve over time, but in all instances, it constituted a form of complex multitasking wherein the two states could not converge. I attended to this multitasking in a few different ways. The first two sessions, I simply tried to grasp why both tasks had become so difficult. On the third session, I decided to leave my book of field notes at home and record in it after the session. This also proved onerous as I had difficulty remembering precisely and belatedly translating complex interactions. By the fourth and subsequent sessions, I learned to bring the notebook, but leave it to one side until I had fully arrived and connected with the tree being, at which point I would pick it up the notebook sparingly and record lightheartedly with little focus. Sometimes this meant I intuited with a tree for 20 minutes before picking up my book of notes and recording multiple exchanges. It also meant some more minor, more personal, or more complex parts of conversations went unrecorded or lost some texture. It also meant that the act of translating was further blurred by the act of remembering. Furthermore, some of the most immediate and clear communications I had with trees came when there was no expectation to record anything, such as when I simply engaged with a tree outside my normal fieldwork. Lastly, my field notes tended to record only one side of the communications; my own comments and questions were largely omitted. In some cases, I said

quite a lot to the trees, but for practicality's sake only recorded their response. Future investigations might discern whether drawing, left-handed writing, dancing, or some other creative form might better "capture" IIC exchanges. For my own purposes, I stayed committed to collecting fieldwork notes, in part, because some highly alternative research presented in highly alternative ways only reaches a highly alternative audience. In the end, I found some cognitive and artistic pleasure in the challenge of working through disjointed and juxtaposed tasks.

Translation issues

As a result of this contradiction, my field notes can best be described as "gestures and sketches" of intuitive conversations. Translating was also complicated by the fact that taking intuitive communication into the realm of words almost always necessitates some cleaving off of meaning. Sometimes I "get" the message instantly but the effort to translate it is slow, uncertain, and rather laborious, resulting in crossed off words in my notes. In occasional instances, a few sentences on the page are meant to describe complex and meaningful exchanges. Imagine seeing a photograph of a contented cow on a backcountry road and translating the image into one sentence (as I have just done). Inevitably some of texture, gesture, nuance, color, and even meaning is lost. Many conversational moments with trees feel similarly paired down. In some instances, the communications are so swift and complex (such as with the Raven), I could only hope to record a trace of them as my hand could literally not move fast enough to capture everything. Future investigations may determine whether haiku or some other poetic form or writing skill or intuitive ability may improve these translations.

As Sean Blenkinsop and I have discussed elsewhere (Kuchta & Blenkinsop, in press), the English language itself contains unecological features that complicate translations: the language is individualistic rather than relational, object oriented rather than process oriented, and currently (but not ultimately) limited in eco-relational vocabulary. Additionally, this IIC project is not extensive enough to determine whether phrases, sentences, and paragraphs can adequately reflect tree messages and intentions. Word choice itself is a tricky issue because I have attempted to gather the feeling or intention of particular messages by translating them into particular words. But, as with all written communications, the reader should see these translated results as framed by my own culture, era, and colloquialisms. For example, I asked a large and aged Birch tree if there was anything it wanted me to know. It replied: "There are many things, but you're not ready

to hear them." Birch added, "Not to worry. You'll hear more in time." In this instance, "not to worry" could also be writing as "worry is a non-issue here" or "don't worry, it's unnecessary."

Words are my medium, not the trees'. Trees made clear on several occasions that they were not interested in translation issues and trusted me to make those choices. Presumably, because I am human, they trust I can communicate to other humans (we'll see!). When pressed, ("yes, but are you *sure* you don't care? And what do you think of the term 'more-than-human'?") the Basswood tree seemed to shrug with indifference. Later, a Douglas Fir said, "Words are human terrain."

Receiving Healing for the Body

Needless to say, this project originated out of concern for the ecological health of the planet. Through understanding how loving engagement facilitates IIC, I believed I might shed light on the processes and potentials of IIC for healing trees and other plants. I began most of my encounters with trees with the open, intuited intention: *How can I help? How can I be of service to you? What would you like me to know? Or to convey to the other humans?* It was, therefore, quite humbling to see over and over how Birch, Beech, Cherry, and Fir trees as well as others were primarily concerned with helping to heal *humans*—and me in particular. The sense here was that I could not help heal the earth in any meaningful sense without first beginning to heal my own body, spirit, and relational wounds. (More on the broader implications of this below).

At first, I tried to steer trees away from that pursuit ("No, I'm here to help *you*. Tell me about *your* needs.") I quickly abandoned this wasted effort because the trees simply would not address anything but my own healing in the initial stages of this project. When I began the doctoral program in Fall 2020, I was severely ill with post-covid syndrome. When fieldwork began two years later, I was partially recovered and able to go for small occasional walks again. For example, on a stroll one night, several trees suggested I go home and care for my health that it was "not the time for revelations." It was inexplicable from a tree perspective why I would not stay home and rest when obviously exhausted. (*Clearly they have much to learn about the work demands of a doctoral program*, I huffed). Eventually, I learned not to attempt IIC fieldwork unless well rested.

Healing was sometimes more direct and specific. A Japanese Cherry tree, told me to lay a hand on it so it could "send some healing energy" to me. The Cherry, recognizing that I was worried about the effort of walking home, told me to "remember my roots." I replied, "Of course, I don't have roots. I'm human." Cherry tree said, "Of course, you do. All humans have roots, but they are made of light. Did you forget? Try to remember and it will help you feel better, more grounded." Walking home, I could easily see/feel white light press into the ground with each step. This curious mindful practice did indeed help me feel more grounded, embodied, and physically healthier. I continued to walk this way occasionally over several months.

Receiving Healing for Relational Wounds

Regrettably, in my lifetime, I have been harassed, stalked, chased, violently threatened, and more by unfamiliar men in multiple countries and innumerable settings. Consequently, my personal safety posed an additional obstacle to IIC fieldwork. I longed to travel deeper into the woods, to move away from human-made trails and see what less contacted trees and tree communities wanted to share. In particular, I wanted to travel to the Fairy Creek Forest on Vancouver Island, the last stand of true old growth forest anywhere in my province and which is currently threatened by imminent logging. *What might these ancient beings impart?* Regrettably, I could not orchestrate safe enough conditions to do so. Indeed, at times, I left a field site early and abruptly because unknown men arrived. In other moments, IIC with trees was interrupted while men passed me nearby. This issue of personal safety remained unresolved during the fieldwork.

This personal history hints at the depth of relational pain I carry. (In chapter 7, I explain how the need for personal safety may have fostered my intuitive abilities.) These past traumas, betrayals, and heartbreaks shifted the nature of some of the IIC work. Sometimes, the burden of my own emotions, memories, and psychology impeded my ability to shift into the necessary open and loving state for intuiting. Also, trees showed even greater concern and care for my inner wellbeing than physical wellbeing and shared many messages too personal to relay here. Additionally, time spent with trees reduced immediate trauma by enabling me to feel more embodied (rather than numb or out-of-body) and being embodied seemed necessary to IIC. Most importantly, the feeling I had sitting next to a tree was that of sitting next to an elder who is loving and kind. I felt nurtured and cared for. Unlike the multitude of other ways of relating, in my experience, the intuitive connection of IIC work does not seem to allow for hiding, lying,

deception, or other forms of obscuring. Just as the IIC process allows me to "see" the real being of the tree, the tree "sees" the real being that I am, and loves me for it. Not finding the love one needs can be very painful—but finding *exactly* the love one needs the most can be excruciating, unbearable even because it exposes our deepest relational wounds. Other relational wounds interfered with my ability at times to do IIC. These included: insecurity, neediness, heartache, assertiveness rather than receptivity, being heart-centered (i.e. stuck in the emotional self), fear, guilt, and in some contexts, loneliness.

Early in the fieldwork, I was out walking one day, unsure where to go and having difficulty "listening to the call," so I asked the surrounding trees, grass, birds, and land to help me. The response came: "Are you willing to be loved?" My more-than-human neighbors told me that asking myself that question and being in that state of reception would enable me to communicate intuitively with them. If readers take a moment to ask themselves that question, they might notice how the energy flow—their attention—shifts direction from outward to inward. IIC is an incredibly receptive experience, in contrast to our contemporary techno-industrial lifestyles that demand much assertiveness and external activity. Hearing the voices of tree folk and others means being in a highly receptive state, and for me at least, confronting relational wounds from the get-go.

Receiving settler/ancestral healing

This fieldwork also confronted me with some of my relational wounds as a settler/descendent of immigrants on traditional Indigenous land. Some trees told me that tree communities and more-than-humans in general have already been preparing and making "hard decisions" to address climate change and other environmental destructions, and that humans, by contrast, are far behind in this preparation. This led to a conversation about how trees migrate (as do rivers, stones, and mountains, albeit on their own timelines) and my sharing that my own ancestors also made hard decisions to leave traditional homelands to protect and benefit their descendants (like me). I then shared with a couple Douglas Firs how I don't have much sense of "belonging" anywhere since my ancestors migrated and in some cases were forced to migrate, and now I'm here as a settler on lands that are new to my people. In my part of the world at this present time, settler people are sometimes reminded, sometimes aggressively, that they are "visitors" on this land and that only

the local Indigenous people "belong" (this was once yelled in my face by a well-known Indigenous author).

Because of these strong views, I recognize some humans may be offended or distressed that the trees I have communicated with take a different stance on the issue of belonging. When a tree or tree community calls me to them, the invitation *is* to belong and to know *with*, not to merely know *about*. The trees helped me understand that, somewhat paradoxically, I cannot truly *know* these lands and, thus, the human cultures that emerged from them unless I'm willing to let that knowing carry me to the point of belonging. Here, "belonging" means being fully accepted and welcomed into intimate and enduring relationship with the beings—the trees and forests—of this place, with the land itself. If I don't know these lands, I will not be able to act responsibly toward the land nor toward the Indigenous communities who were forcibly displaced from them. Being in an intuitively shared space with a tree being means being willing to "see" the other in their true essence, beyond the decoration and temporality of skin and hair or leaves and bark. But truly seeing trees and other more-than-human kin in this way also means I too am fully seen, and in a sense, brought home.

8.4. The role of love in IIC

My experiences of IIC have been enabled by eco-love, which I define as the luminous, vibrational, and fundamental element radiating through and thus embodied by all earthly beings and bodies (see chapter 4). Eco-love is evidenced through all aspects of my IIC process. First, I feel called, drawn to a particular location with an open-hearted sense of wanting to be with and know the one drawing me. Second, I actively look for radiance as a sign of whom I should communicate with. Here are my field notes about being drawn to some creek boulders:

> I feel the invitation and follow it—am willing to follow it. Then when I saw who is calling me, I recognized immediately their beauty and literal radiance (essence). There is a familiarity there, a likeness, like when you see a human who upon first glance you feel a commonality or an attraction to. Next, there is a deep and genuine desire to know the stones, to truly see and understand them. (June 7, 2023)

Thirdly, as the trees and other beings have told me, I can shift into the receptive state by being willing to receive love, to feel the love offered to me. Fourthly, when I begin IIC, I feel open and unconditional acceptance of the tree or other being. Fifthly, IIC offers me a different way of

knowing than would be available through rational, brain-centered epistemologies, and in doing so, offers me knowledges that would not otherwise be available, as my field notes from communicating with river boulders illustrate:

> While I, human, hear the constant rushing of water, there is silence inside the stone. But it is not the passive, blank static silence I imagine. The stone feels itself to be in motion, in internal movement, like a slow shifting of particles. It doesn't feel slow from the stone's perspective. It's like digesting and turning memories. The stone feels itself to be alive.
>
> The stones feel themselves to be evolving, growing. The stone's feeling of love is related to 'participation,' living out their lives. There is peace inside. And praise.
>
> All these stones say they will head downstream one day. It's part of the plan.
>
> A stone is not so concerned about its surface. Its focus or essence is interior. (June 7, 2023)

Sixthly, because I now have a visceral sense of these stones as beings, as having a life and a life plan, I care about their wellbeing. While it may not matter from a brain-centered epistemology whether these boulders are moved or blown up, personally, I would want to consult the stones and seek their input. My own impression from communicating with more-than-humans is that, unlike much of the hyper-competitive and me-first world of humans, the natural state of more-than-humans is collaboration and harmony. "Harmony" does not mean perfect, unending, and mutual peace. Harmony is not a singular music note sung by all at the same pitch. In this context, "harmony" means a willingness to engage in the mutual flourishing and growth that means some live and some wither and die. In the classical orchestra, the violin may overtake the flutes while the piano climbs over the cello, and all give might give way to pauses and silences. Ecological harmony is a complex symphony of growth. The stones may agree to being moved or sacrificed depending on the situation, but also, they might offer a third solution not identified by humans. More broadly, my connection to these stones prompts me to start revising the scientific definitions of "life" that I learned in school, for I have felt the liveness of boulders and understood their sense of self and purpose.

Seventhly and lastly, doing IIC spreads love and, thus, the potential for love epistemologies. I walk away from communicating with boulders and feel a deeper sense of my own belonging in the world and the belonging of all others and the mutual or potential love between us.

In summary, IIC is itself a mutual act of love. It is:

1. Attraction (calling, hearing the call, being drawn to each other on an inner level)
2. Respect (responding to the call, sitting patiently, deep listening, acceptance and appreciation of difference);
3. Devotion (long-term connection to trees and their offspring, trees offering me long-term healing and support);
4. Companionability and togetherness (shared time, shared inner feeling);
5. A desire to truly see and know the tree, to understand and unconditionally accept it;
6. A willingness to truly be seen and known, to be understood and accepted unconditionally;
7. A mutual and understood agreement to support each other's wellbeing and flourishing

The more-than-humans I communicated with also spoke to me of their own experience of love outside of the IIC experience:

> The soil is a lifelong, intimate embrace.
>
> Trees are caressed by the light.
>
> The soil is the constant connector, not possible to be unconnected.
>
> The trees have a kind of "seeing" with their leaves and can perceive the beauty around them.
>
> The tree accepts humans as part of nature, as belonging to this world, free to wander. (Chestnut Tree, Session 9)
>
> Growth itself is a kind of love. The reaching out, broadening, expanding, lushness, abundance, connection, touching. (Chestnut Tree, Session 9)
>
> There are little 'medicines' everywhere, all day, given to people that are meant to help. Learn to recognize and accept these gifts. (Douglas Fir, session 12)
>
> Humans are the most impoverished of animals because of their tendency to hold obstacles and blockages to love. (White Crowned Sparrow, session 12)
>
> Love is a gentle slowness of growth. (Western Cedar, session 18)

8.5. Love, relational expansion, and forest mind

Unlike much qualitative research that reaches a saturation stage, the process of doing IIC was one of exponential learning and growth. Initially, it required me to examine a number of biases and limitations I have had as a human—an ongoing process. I tried to retrain myself not to think of seagulls as "dumb" or to automatically brush away insects that landed on me (*maybe they wanted to communicate?*). On session five, a Basswood tree in a park asked me why I only address one of them, rather than the family of five or six trees to which they belong. After that, I tried to remember (but didn't always succeed) in communicating with families rather than individuals. On session 12, a pair of Douglas Firs introduced me to what I call "forest mind," a way of "getting out of my head" and expanding my awareness over the whole landscape. Essentially, this expansion is a way to connect intuitively with the whole forest. Surprisingly, this expansion came with a profound sense of relief—as if the physical and cognitive constraint of my headspace was finally alleviated. Here are some other messages from Forest Mind:

> There is a cycle of love energy. (Whole Forest, session 12)
>
> Places can generate stronger love resonances/vibrations [than a single tree]. (Whole Forest, session 12)
>
> It is counter to the intention of life, earth, to block or stop love, though many humans do that. (Whole Forest, session 12).

On a subsequent session, Forest Mind asked me why I always came alone, where my own community was, and why they are not partaking. I was already hosting a once-a-month meeting of 3-4 individuals wanting to do IIC with trees. On session 15, I brought a friend to the Forest Mind forest, which resulted in me instructing him in basic IIC. My friend practiced IIC with the creek and reported feeling drawn to it "because of the beauty" and that being in the forest felt "like coming home." Together, we practiced Forest Mind. I asked the forest how it felt about us connecting together like that and heard we were "very welcomed" and "taken care of." In my final fieldwork session, I was with my online group and, following the Forest's encouragement for community, I suggested the three of us humans who were spread across North America do IIC simultaneously with our neighboring trees.

In that intuitive communication, I understood from the Beech Tree Community that there are no secrets in the shared space of IIC. One cannot hide oneself and still "know" the other.

Because I have been experiencing being ‘fully seen’ by trees since I was a young child, I know—even on occasions when I resist experiencing—that I am always and only greeted with love and acceptance. Yet, on this final IIC session, the Beech Tree Community explained that people don’t want to risk feeling vulnerable in this way these days because there is “an epidemic of insecurity, self-loathing, and shame amongst humans.” Beech said people don’t want to be exposed, they don’t realize how beautiful they are, how loved they are, how much they belong already. When I asked the Beech Tree Community what me and my community of humans can/should do for trees, they said, “*Humans* need to heal. That’s where the energy should go. Humans make the wrong choices *because* they haven’t been healed.”

8.6. Summary

In sum, this fieldwork illustrates how IIC 1) emerged from radiant, vibrational eco-love; 2) was enabled by open and unconditional love, acceptance, and desire to know with the other; and 3) expanded epistemologies so that otherwise unavailable knowledges became accessible. Through our intuitive communication sessions, trees, plants, birds, and insects emphasized that humans need healing and that the greatest priority in preventing more environmental destruction is to work to heal humans, specifically human love. The practice of IIC promoted healing by engendering feelings of unconditional love, care, support, belonging, along with physiological, relational, and epistemological healing. Additionally, unlike some other activities that also support environmental learning, such as outdoor adventure activities, IIC readily adapted to my physical disabilities and limitations and, where and as possible, supported recovery.

Other aspects of the fieldwork were examined but are excluded here for brevity’s sake, including: trees’ sense of time being “kaleidoscopic”; my Celtic heritage and potential ancestral links to IIC with trees; tree messages about how to teach IIC; messages from trees that are currently unverifiable; the meaning and quality of “community” from tree perspectives; comparisons between IIC with isolated park trees versus forest trees; comparisons between IIC with trees versus animals; the potential risks of doing IIC in general and without eco-love as the conduit specifically; and the ways in which trees helped shape ideas for this paper.

Future research might explore IIC with singular ecosystems and multiple humans; IIC praxis and theory; the experience of eco-love of IIC students; IIC as a therapeutic model for

anxiety and depression; cross-cultural IIC experiences; cultural differences between species as revealed through IIC; using 'forest mind' to find lost people, places, or plant medicines; and the potential of IIC for creative problem solving.

On my penultimate session, the Raven high above me in a Grand Douglas Fir said, "Don't let humans get the idea that IIC is simple or basic, with basic messages; It's complex and intricate, leading in a multitude of intricate directions and a vast terrain that keeps on expanding." Some of what Raven said might have been too sophisticated, complex, and lightning-quick for me to grasp. As I walked away from Raven and the Fir tree at the end of our session, I found a raven feather on the path before me. It's a little small and scruffy, but it seems an appropriate and very welcome gift, a tangible something to commemorate the completion of this collaborative research.

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Chapter 9.

Eco-Love, Epistemology, and Healing

Preface to Chapter 9

This final chapter draws together the threads of previous chapters by pointing to the need for an expanded theory of love. In working towards this theory, I examine evidence of more-than-human love from multiple angles and suggest that our human capacity to love has been hampered, in part, by theories of love that focus entirely on human experiences. I also step more firmly onto eco-spiritual terrain in this chapter by touching on the numerous overlapping religious and cultural conceptions of love applied to cosmic and earthly realms and their epistemological possibilities. Here, I define my theory of eco-love and reflect on the potential impact for relational healing and expanded epistemologies.

Keywords: love; love epistemology; intuitive interspecies communication; healing

9.1. The Limitations of Anthropocentric Love

With few exceptions (e.g. Gheaus, 2012), theories of love in the fields of philosophy, psychology, cultural studies, sociology, science, education, and theology almost always centralize the human experience of love (Fromm, 1956; Teilhard de Chardin, 1817; Hanh, 1997; Lewis et al. 2000; hooks, 2001; Sternberg & Weis, 2006; Illouz, 2007; Oord, 2010; Han, 2017; Martin, 2019; Mayer & Vanderheiden, 2021). In doing so, they may be inadvertently reinforcing environmentally-problematic beliefs, such as human exceptionalism and the isolation of the individual. Even when love is discussed in the context of nonhuman animals and nature (e.g. Aaltola, 2019 & 2022; York, 2021; Lysaker, 2024) love is typically one-directional: the focus is on human love for

animals, plants, and the planet, but not on how or whether animals, plants, and the planet might love humans back, express love in general, or love each other (beyond the basic mating instincts of animals). Fan Yang, Jing Lin, and Thomas Culham (2019) suggested, "eco-ethics such as the ethic of Reverence for Life, the Gaia hypothesis, and biophilia, offer a series of keystone theoretical frameworks for calling for more love to environment" (p. 1119). This invocation is important, but so is the need to begin to comprehend love from nonhuman perspectives. Even when analyses of shared love is the goal, investigations can favour brain-centred, Western, and rationalist approaches (e.g. Stringer, 2021) which may epistemologically reduce understandings. Ultimately, the fields of love studies, environmental philosophy, and ecological education could be enhanced by widening the scope and nature of love research.

In the same way that scholars (e.g. Calvo et al. 2020; Bräuer et al. 2022; Ryan et al. 2021; Bridle 2022), are broadening understandings of intelligence by examining it from ecological and nonhuman perspectives, we can broaden understandings of love by examining it from an ecological and nonhuman perspectives—and perhaps recognize that love *is* a kind of intelligence. However, several problems exist here. First, current theories of love are not applied to more-than-humans, even when applicable. Second, current theories also warrant revision in light of emerging evidence. As researchers in intelligence studies have identified (Hendlin 2020; Bräuer et al. 2022; Hoffmann 2022), anthropocentric frameworks can limit understandings. And, third, maintaining poor conceptions of love may be contributing to a host of biopsychosocial problems that, in turn, may lead to increasing ecological harms (since anxious, depressed, isolated, and ill people may not have the capacity to prioritize ecological ethics when shopping, soothing, entertaining, or medicating). In contrast, ecological understandings of love (as explained below) may promote biopsychosocial healing along with epistemological expansion. By drawing on scientific facts, observational data, and cultural analyses, this paper offers a preliminary theory of love from an ecological perspective and suggests the epistemological implications of redefining love in this way.

9.2. Hearts, brains, and social connection

Outside particular theological fields, current examinations of love frequently suggest love is a function of neurobiology (e.g. Lewis et al. 2000). From this perspective, suggestions that land or water might love may seem scientifically dubious. But are human or mammalian-like neurobiological systems necessary for the experience and expression of love? In studies of plant intelligence, researchers have learned that fungi do not need brains or nervous systems to make

complex decisions (Sheldrake, 2020). Trees do not need mouths and larynxes to gossip, make collective plans, or send warnings (Wohlleben, 2015; Simard, 2021). Suzanne Simard (2021) suggested trees might be able to pick up on the moods and thoughts of neighbouring trees, to eavesdrop on the conversations of nearby and competitor tree families, and to communicate as quickly as humans. Monica Gagliano (2018) discovered that mimosa plants do not require grey matter of brains to store memories. John Ryan, Patrícia Vieira, and Monica Gagliano (2021) reported that plant beings "discern between options, learn from prior experiences, and negotiate traumatic memories to minimize adverse effects on future generations" (p. xv). According to these researchers, fungi and plants perform many of the sophisticated and social actions humans do but without the recognizable apparatuses of nervous systems, brains, and other mammalian features.

One way to understand these capacities is to view them as physiologically mirroring human processes but more abstractly. For example, trees use "neural-like physiology," including the transfer of glutamate (a neurotransmitter in human brains) in collaboration with fungi to communicate to other trees in their community (Simard, 2021, p. 229-230). This intriguing discovery might make us reconsider assumptions about the role of brains in intelligence and sociality. Perhaps even more provocatively, tree-fungi communication systems might shed light on tree ontologies. For trees, the process of communicating is inherently relational—and even interspecies—for trees cannot communicate without the assistance of fungi. What might this experience suggest about the potential for interspecies trust, bonding, belonging, cooperation, commitment, care, and other qualities associated with love? How might *humans* understand themselves and the world differently if we were only able to communicate with each other through the assistance of, say, insects?

When love definitions are not focused on brains and neuroscience, they most often focus on hearts. Brené Brown (2021) urges us to have an adventurous heart. Thich Nhat Hanh (1997) encourages us to awaken the heart. And Ram Dass (2011) prompts us to follow the journey of the heart. Whether alluding to psychological dispositions, chakras, or states of consciousness, how do these messages relate to more-than-humans, both those with a physical heart organ and those without? What might these *heart*felt messages mean, for example, for the octopus with its multiple hearts and tactile brain? Can it experience love more deeply, freely, complexly, or abundantly than humans? Does it have multiple heart chakras? Is its experience of the world more sensual, provocative, or cosmically connected than ours? And what of those beings without a muscular organ to rhythmically distribute blood through a circulatory system?

Of course, many people, and the culture at large, associate love primarily with romantic and sexual love, including attraction, flirtation, lust, sensuality, passion, and so on. Here too, more-than-human experiences might spark some expanded conceptions. The split gill fungus, according to Sheldrake (2020), has over 23,000 sexes, nearly all of which are capable of mating with the others. Are their sex lives significantly more dynamic, creative, or confusing than humans? Some researchers zero in on attachment theory as a focal point of love studies (e.g. Gerhardt, 2004; Levine & Heller, 2011). In certain species of the deep-sea anglerfish, small males sink their teeth into huge females where the two merge and eventually become one organism (Pietsch, 2009). What might love, identity, and attachment mean for these couples who have—quite literally—merged into one? Some may argue that attachment theory and romantic love are founded in human emotions, that is, human neurobiology. But as we have seen already, human-like neurobiology does not appear necessary for tree and fungi sociality and intelligence. Romantic love and forms of attachment may similarly not be limited to humans alone.

9.3. The actions of love

Although definitions of love often focus on the actions of love, seemingly loving more-than-human actions are rarely defined as love. Thomas Jay Oord (2010) explained, "To love is to act intentionally, in sympathetic response to others (including God), to promote overall well-being" (p. 15). bell hooks (2001) expressed, "The experience of genuine love" contains "a combination of care, commitment, trust, knowledge, responsibility, and respect" (p. 7). Tobore Onojighofia Tobore (2020) proposed that love can be defined as "attraction, connection or resonance, trust and respect" (2). When a human mother feeds and protects her child over the course of years, the action is generally seen as stemming from love. The mother is acting intentionally to promote the overall wellbeing of her child. Her actions involve care, commitment, knowledge, and responsibility. She likely feels compelled and connected to her child and (hopefully, typically) inspires trust and respect as a result. Mother trees in collaboration with networks of fungi, however, also transfer food to their offspring over the course of years and alert them with chemical signals when predatory insects have moved in (Wohlleben 2015; Simard 2021). Isn't this love too? The mother tree-to-offspring relationship is but one example of bonding within tree communities. Analyzing the multitude of forest relationships, scientist Suzanne Simard (2021) describes forests as behaving like "civil societies" with many "human-like behaviors" (5). A

“civil society” contains overarching patterns and attributes linked to love, such as respect, trust, connections, cooperation, harmony, altruism, and support of mutual flourishing.

A community of mature Beech Trees grows in the small city park beside my apartment. For me and other local humans, these trees are a constant source of beauty. The fresh scent, the lush rustle of leaves in a summer breeze, and the crunch of orange leaves under foot in autumn offer sensual pleasure. In summer, the thick canopy of foliage protects humans from excess heat and sun. The fractal design of winter branches, as with all trees, is both stimulating and calming to human nervous systems (Franco et al., 2017). Moreover, spending time in nature spaces, such as this park, increases overall human wellbeing in a myriad of surprising and profound ways, including: reducing inflammation; preventing and reducing mental health disorders; improving immune function; decreasing stress and associated illnesses; and increasing longevity (Kuo, 2015; Engemann et al., 2019). In these ways, these Beech Trees offer neighboring humans care, protection, beauty, comfort, and sensual pleasure while promoting overall human wellbeing.

Are these trees acting lovingly toward their local humans? Some might reject that claim by suggesting that trees do not *intend* to act in these ways, that their benefits to humans are incidental, a mere evolutionary adaptation. But this evolutionary claim could be made for human love too. And how can we know what a tree intends? (Perhaps we could *ask* the tree—see previous chapter and below.) Possibly, trees are much more active in deliberately attracting, engaging, and retaining human attention than they are generally given credit for. Richard Power’s (2018) novel, *Overstory*, implies that trees purposely work to appeal to humans as a self-preservation strategy. In fact, this Beech Tree park only exists because of the bond a particular human felt for the land and the trees upon it; the elderly woman who owned it bequeathed it to the city of Vancouver on condition that it remain a park and never be developed. Did the elderly woman feel bonded to the Beech Trees or merely recognize her Beech Tree property as offering respite, comfort, and beauty for neighboring humans? Either way, the Beech Trees’ intentional or inadvertent courtship of humans benefits both, along with neighboring birds, squirrels, insects, and more.

The park crows have their own love stories to tell. First, courtship begins with jockeying for attention, posturing, courtship sounds, extended physical proximity, and feather puffing. Exchange “feathers” for “chests” and “sounds” for “phrases” and the previous sentence could easily be describing human courtship with obvious and recognizable evidence of attraction, flirtation, romance, and sexual desire. After courtship and sex, crow couples work tirelessly to

fashion nests high in the Beech Trees as the spring leaf buds begin to unfurl. Their chicks are hatched amidst thick foliage in nests made from the Beech trees own fallen twigs. Listen to the local humans in the neighborhood a few weeks later and they will talk at length about the overprotectiveness of crow parents. These anxious parents will preemptively harass humans, cats, dogs, squirrels, ravens, and eagle in who end up accidentally or deliberately near their fledglings. Some crow parents—seemingly hysterical with grief and anguish—caw at and dive-bomb anyone who approaches their tree while the scatter feathers on the ground evidence their family tragedy. Groups of dozens of crows—whole communities—might chase after an eagle who took one of their young. In these moments, crow parents and crow communities risk their lives for the protection of their collective young. As with us humans, anger, loss, and grief appear to be inevitable dimensions of love for crows at times.

But the squirrel, eagle, or others guilty of killing crow chicks are not acting out of hatred, evil, or dysfunction. Their story too is about love, for the squirrel pups and the eagle chicks also must eat or else die. Knowing this, their squirrel and eagle parents take great risks to support them. Life and death, love and loss are linked, as are multiple forms of love—instinctual, parental, eco-spiritual, and so on. When a fledgling crow leaves the nest too young and cannot make the flight back up before nightfall, its death means the coyotes are fed. A storm strikes and many Beech Tree branches and twigs snap. The fallen debris fertilizes the soil, provides bedding and nests for many and food for some insects. A worm escaping the drenched April soil is picked up by the crow father and fed to his growing chick.

By singling out octopuses, fungi, trees, crows, and others, I have replicated a particular way of thinking: the ontological tendency to register the world as a set of entities/objects capable of coming into relationship with one another and sharing the love each one of them has. Seen from an eco-spiritual and relational ontology, however, love might exist as a particular force and/or particular processes patterned throughout the planet and cosmos. From this perspective, love might be already available and within entities to co-experience, rather than being generated by entities. Some scholars (e.g. Teilhard de Chardin, 1817; O'Donohue, 1997) recognized love as the central and fundamental aspect of existence within the universe. From this perspective, might the Big Bang be viewed as an ecstatic orgasm scattering star pollen or ova to kick off the universe? Indigenous Hawaiian scholar Manulani Aluli Meyer (2021) explained that in their tradition, the world was indeed created through love—through loving union. Meyer added, "Our separation from this intimacy, this loving process found in our natural world and in all the lessons we explore through this knowing, is the true cause of climate change" (p. 85).

9.4. Contemporary human love and love wounds

Some may wonder why it matters whether we perceive the actions of trees and others as loving or not. However, bell hooks (2000) reminded us that “Learning faulty definitions of love when we are quite young makes it difficult to be loving as we grow older” (p. 5). Although hooks was likely only referring to human love, the sentiment can also be framed from an ecological perspective. That is, humans may have trouble loving the Earth and their more-than-human kin when educated with limited conceptions of what love is, who can express it, or how it might function. A great many of us have absorbed notions of love that are rooted in hyper-individualism, anthropocentrism, and consumerism, and our expectations and expressions of love reinforce these values. Speaking of romantic love, the German-American psychoanalyst Eric Fromm (1956) described finding the “right object to love—or be loved by” (p. 2) and suggested people searching for love are “out for a bargain” or a “prize,” wherein the object of love must present an “attractive ‘package’” in order to appeal to bargain hunters (p. 3). Although Fromm was likely *articulating* a reality, rather than promoting one, in my view, this materialistic framing of love appears suggestive of a wound of love.

Humans in general spend less time engaging with nonhuman nature than at any other point in the history of our species. This separation contributes to an unrooted, free floating, lonely quest for superficial love “prizes” that by definition cannot possibly satisfy the deeper human needs for belonging, connection, relationship, and unconditional love. (These “prizes” might include financially wealthy but morally bankrupt friends, or physically gorgeous but selfish and mean-spirited partners, or superfluous material objects purchased in an attempt to fill unmet needs for companionship, care, and nurturing.) Fromm’s diagnosis of contemporary romantic love, like Eva Illouz’s (2007) and Byung-Chul Han’s (2017), recognizes the way love has become tangled with economic values and shallow and selfish desires. In fact, Fromm (1956) acknowledged that the ever-heightening anxieties around love may relate to humans’ increasing distance from the natural world. Viewing the natural world as merely a resource appears to have led to viewing other humans as resources and the anxious realization that we too can be seen and treated as mere resources. In this dynamic, no one inherently belongs, everyone and everything is expendable, and love is transactional and, thus, expendable and hard to maintain.

Additionally, many scholars have argued that contemporary Western humans have weak or underdeveloped relational capacities, namely the capacity to love. Some attribute this atrophy to cultural practices of childrearing and education (Narvaez, 2024), the culture of capitalism

(Illouz, 2007; Gerhardt, 2010) and general cultural beliefs (hooks, 2001; Han, 2017) while others chalk it up to a disconnection from spirit, including the spirit(s) of the land (O'Donohue, 1997; S. Somé, 1997). Contemporary love causes depression (Han, 2017), anxiety (Fromm, 1956), and painful longing (S. Somé, 1997; hooks, 2001). Beyond personal suffering, love anxiety results in anti-ecological values such as increased materialism and decreased morality and empathy (Gerhardt, 2010). Sue Gerhardt (2010) described, "The heart of the matter is that we are living in an impoverished emotional culture, the end product of decades of individualism and consumerism, which have eroded our social bonds" (p. 13). Through the vast history of human evolution, infants have been sensually and affectionately held in the arms or on the backs of caregivers (now in strollers or playpens), attended to as soon as they start to cry (now left to cry it out in 'sleep training'), gazed and cooed at during feeding (now often overlooked as caregivers stare at phones), most often supported by a community of adults (now most often left in the care of one or two exhausted adults), and free to develop relationships to more-than-human kin (now indoors almost all the time). A plethora of studies conclude that time spent in nature benefits children's psychological development (e.g. Scott et al., 2022; Kuo et al., 2023). Citing numerous other studies, Steph Scott and colleagues (2022) warn that less time spent in nature may be reducing children's communication skills, creativity, and self-esteem. These studies have worrying implications for young people's ability to experience love.

The harms of reduced nature exposure, however, are not just psychological—they affect our biology. Manmade pollutants may be changing human *capacity* for social interactions. For example, Wolstenholme et al. (2012) reported that BPA disrupts hormones such as estrogen and oxytocin with possible "transgenerational actions on social behavior" in humans (p. 3836). Elisabet Suades-González and colleagues (2015) concluded "the latest epidemiological studies support the hypothesis that pre- or postnatal exposure to ambient pollution [. . .] has a negative impact on the neuropsychological development of children" (p. 3473). As a result, global IQs are decreasing while depression, anxiety, autism spectrum disorders, and hyperactivity—all of which impact relational capacity—are increasing (Suades-González et al., 2015). In other words, our lack of understanding and bonding with our more-than-human kin leads us to cause them harm. The environmental harm we cause, in turn, biologically and psychologically harms us, which exacerbates our lack of understanding and bonding. As Darcia Narvaez (2024) suggested, the dominant culture's break with traditional forms of childrearing and of relating to nature has resulted in a "feedback loop of greater disconnection and destruction" (p. 1).

9.5. Love and epistemological possibilities

Our ability to experience and express love can be reduced through cultural practices, and, curiously, this may also have epistemological implications. Love appears to enable particular ways of knowing and particular knowledges that may be otherwise unavailable (Zajonc, 2006; Kuchta, 2022; Kuchta, 2023). Jickling and Blenkinsop (2020) noted that some of the most profound, creative, and influential environmental thinkers (Rachel Carson, Arne Naess, Aldo Leopold) had intense and lengthy relationships with more-than-humans which were “profoundly sensual,” “deeply visceral, relational, and intimate” and that “evoke care through emotional engagement, empathy and identification” (p. 130). Likewise, Deborah Bird Rose (2017) and Karen Barad (2015) among other contemporaries have intimately engaged with flying squirrels and electrons, respectively, and in doing so, provocatively expanded ecological thinking. Ryan et al. (2021) suggested that humans generally and researchers in particular “can become entrained” to “vibrant human-plant networks” through “expressions of care, curiosity, and openness” (p. xv).

One deeply relational and intimate practice appears to expand the epistemological boundaries quite beyond what rationality alone can offer and holds particular promise for better supporting animals, plants, and the planet: intuitive interspecies communication (IIC). IIC is a form of communication between humans and animals or humans and plant species that is not dependent on sensory clues or physical proximity. Although communicating intuitively at all, let alone with other species, may stretch the imagination of some readers, IIC is currently being used in veterinary clinics (globally); farming practices (South Africa); wildlife sanctuaries (Africa); and government land practices (USA & Canada); (Barrett et al., 2021; Kuchta, 2023; Copper Jack, 2023; Von Diest, 2023; Intuitive Interspecies Communication, 2023). This way of knowing is being used to help diagnose sick and injured animals; to move pests off orchards without the use of toxic pesticides; to address the unmet needs of animals in wildlife sanctuaries; and to encourage forest and water-friendly government policies. IIC practitioners of a recent IIC symposium reported that “animals speak in love” and “IIC is an act of love” and “love is the basis” of IIC with animals (Love, Ontology & IIC, May 26, 2022). Renowned IIC teacher Penelope Smith (2008) explained that IIC is about “Practicing love as acceptance, respect, reverence, goodwill, caring, brother/sisterhood, and even devotion” (p. 37) and that “telepathic development” is “more a matter of opening up to love” than “developing some new power through mental exercise” (p. 39).

Through their intuitive communications with plants and animals, Smith and others (e.g. Berne, 2013; Kincaid, 2014; Gagliano, 2018; Strivelli, nd) have noted that animals and plants often seem much more adept and knowledgeable about unconditional love than humans, and, thus, have much to teach and much healing to offer humans, if we can learn how to listen and be receptive. Malidoma Somé (1997) felt "a homecoming of utmost healing" and the "expression of immeasurable love" emanating from a tree (p. 45). Intuitive communicator and IIC educator Rachel Strivelli (nd) has concluded based on her conversations with trees and other plants that they do indeed *intend* to care for and experience actual love for humans. My own IIC field studies with trees (see previous chapter) align with these findings.

In fact, comments and conversations among hundreds of symposium participants across the globe suggest hyper-rationalism may have warped our understanding of many aspects of life in general, our human place on the planet, our relationship to other beings, and the potential of education (Multispecies Research Symposiums, 2022 & 2023). Love epistemologies flip many understandings on their heads. Firstly, symposium participants—whether researchers, educators, professionals, activist, or artists—repeatedly admitted that contemporary education handicapped their ways of knowing. Secondly, the majority of IIC practitioners report that the plants and animals and planet itself are trying to save *humans*, not the other way around. Thirdly, IIC practitioners who have communicated with COVID and cancers and other seemingly noxious more-than-humans suggest we sometimes prolong and exacerbate human suffering because we fail to understand the true nature of these illnesses, which they suggest is—at least some of the time—to heal disorders that extend far beyond personal biology.

As readers can readily sense, much more research is needed in these fields. Many of the ideas expressed here are tentative and currently anecdotal, yet they point in compelling directions. Expanding theories of love may enable more wholistic and ecologically attuned ways of knowing, allowing us to become more loved and loving kin. What's at stake here may be a relational renaissance with potentially significant epistemological and environmental implications. Before elucidating those possibilities, a shift to an eco-spiritual understanding of love may be helpful.

9.6. Eco-Spiritual Dimensions of Love

While it may be fruitful to see the ways current definitions of love apply to more-than-humans, I am particularly interested in conceptions of love with greater epistemological and even

ontological implications. To sketch this tentative concept, I set scientific and rational epistemologies to one side and turn to the transrational experiences—my own and others—for illumination.

The “eco” in eco-love links to ecology, ecosystems, and ecocentrism

The prefix “eco” is an invitation to see our human selves as entwined within an ecology of love, wherein humans are part of, a broader and cosmic ecosystem of love, rather than being the sole source of love and/or sole recipients of the love of a human-focused God). As “eco” comes from the Greek work “oikos,” meaning, home, this invitation to come home to relationship and to the relational self that Western culture and Western-style education disrupts (Blenkinsop & Kuchta, 2024). In this way, the invisible “anthro” prefix (anthropocentric) before most “love” becomes “eco” (ecocentric). Shifting away from “objects” of love and toward “ecologies” and “ecosystems” of love is also a shift away from static materialities (things or people) and toward processes and relationships. Eco-love is infused within the materiality on our planet and within the cosmos but eco-love is not bounded by materiality. John O’Donohue (1997) asserted, “The body is in the soul,” not the other way around (p. 86). He added, “Your soul reaches out farther than your body, and it simultaneously suffuses your body and your mind” (p. 86). Similarly, I posit that materiality exists *within* love and that love extends farther than materiality does. Eco-love exists in spaces and in entities that have no recognizable material form in the scientific sense (more on this below.) Yet, eco-love is not *transmaterial* in the sense of being above or beyond materiality. Pierre Teilhard de Chardin (1817) described, “Love is the most universal, the most tremendous and the most mysterious of the cosmic forces” (p. 3).

Eco-love is distinct from but may be suffused with heart love

As discussed above, popular culture and particular psychological and theological paths fasten notions of love to the human heart. But the human heart, like other aspects of humans, is highly susceptible to error. Concepts of heart love can, at times, be problematic because they directly (such as in the book *The Secret*) or indirectly urge people to be guided by and endeavor to satisfy their *desires*. But many people, and certainly all of us some of the time, have highly questionable desires that, if satisfied, can cause much suffering for us and others. Heart-love can be infused

with self-interest, anxiety, even delusion. Heart-love does not always benefit others. Heart-love might prompt the adoring child to refuse to release the wriggling kitten. Heart-love might justify seducing a person in a contended and monogamous marriage. Heart-love—that mélange of desires and human emotions—*does* appear capable of prompting daily and noble acts of generosity, devotion, and kindness, but it depends on moral apparatus to function ethically, qualities such as generosity, emotional intelligence, and altruism. From disastrous resource extraction to extreme wealth inequality to the global sex slave trade, the world reels from the fallout of self-serving human desires.

Rather than enabling expanded epistemologies, heart-love may sometimes even reduce ways of knowing. Renowned intuitive animal communicator and teacher Penelope Smith (2008) explained why many would-be animal communicators are unable to intuit with their own pets:

> [M]any people are so emotionally attached that they fear or worry about what their animals could communicate to them. Their conception and demonstration of love is mixed with emotional dependency, sympathy in the form of pity, or a condescending view of animals as poor underlings. Panicky clinging and smothering with attention or affection can demean animals and prevent them from being themselves and growing. These are among the surest blocks to clear reception of what others are really thinking and feeling. All you get back are your own fixated or uncleared emotional reactions. (p. 37)

This "dark side or neurotic aspect of love," as Smith calls it (p. 37), may reflect, among other things, the wounds of love, born out of humanity's increasing separation from our more-than-human kin. Indeed, some now proficient IIC practitioners report being unable to perceive psychically until they worked to heal their own heart wounds (Smith, 2008, p. 39). Since we are humans, eco-love may overlap with our human emotions. Although we lack eco-love language, it may be helpful to think of eco-love as more akin to profound and peaceful harmony and abundant loving acceptance rather than as a feeling of desire, longing, or neediness. Informed by ethical human heart-love and intelligently enacted, eco-love can continue to transform culture and education for the benefit of all Earth's inhabitants.

Eco-love is luminous, vibrational, and evidenced in diverse theologies

My goal in addressing theology is not to promote religion over secular thinking, but rather to aspire toward cultural inclusivity by acknowledging overlapping religious interpretations of what

I call eco-love. Furthermore, when so many diverse traditions converge on a similar concept, it often indicates an area science has not *yet* caught up to. Science and theology, in my view, can make fascinating and supportive companions.

Many theological analyses converge on the idea of love as permeating all of existence. The Sufi believe in *ashk*, the idea that "All beings are made of love and deserve care, compassion, and mercy," (Buğdaycı, 2021, p. 209). Çiğdem Buğdaycı continued that ashk "is generally considered to be the highest level in love as it is the origin of existence and the reason for creation" (p. 214). Jing Lin (2020) describes the Buddhist Dao as "the energy field of Love; it is transcendental yet it also embodies all; it is the order of the universe incorporated into every existence; it is empty as the immensurable energy but it also encompasses everything" (p. 23). Muslim scholar Muhammed Nazeer Kaka Khel (1982) has argued that humans' ability to know, learn, and reason is morally dangerous without being guided by love, that is: *Ishq*. Khel asserted that "To Easterners, Love-Intuition is the hidden truth of the Universe" (p. 63). Perhaps that is also true for some Westerners, as Jesuit Priest Teilhard de Chardin (1817) wrote, "Love is the primal and universal psychic energy" (p. 4).

Some have specifically noted the light/love in land and in human to more-than-human connections. Speaking from the Celtic tradition, O'Donohue (1997) wrote, "Landscape is not matter nor merely nature, rather it enjoys a luminosity. Landscape is numinous" (p. 82). Jewish philosopher Martin Buber linked light and love when he wrote about the ability to connect deeply and meaningfully with others, for example, horses and trees through the recognition of *shekinah*, the divine spark that exists within all (Blenkinsop, 2005). The ability of light/love to summon connection has also been noted outside of religious frameworks. For example, regarding her intimate encounters with plants, scientist Gagliano (2018) described, "What appeared to be intangible—an obscure otherness—is unveiled as the intimate familiarity of an obvious and luminous likeness" (p. 16). In my own fieldwork too, I have noted the shimmering radiance of rocks and plants as an invocation to loving connection.

This shimmering contains a vibrational quality. Speaking of Aboriginal worldview, Deborah Bird Rose (2017) described bir'yun, which is "the shimmering, the brilliance" that is "one's actual capacity to see and experience ancestral power" in the "vibrating world" (p. 53). Academic and Dagara medicine man Malidoma Somé (1997) described, "every tree, hill, mountain, rock, and each thing that was here before us emanates or vibrates at a subtle energy

that has healing power whether we know it or not" (p. 38). Linking love, healing, and vibration, Sobonfu Somé (1997) suggested:

> Maybe the way to start on the path to a healthy intimate life is to recognize the divine in everything. When we acknowledge that the earth we walk upon is not just dirt, that the trees and animals are not just resources for our consumption, then we can begin to accept ourselves as spirits vibrating in unison with all the other spirits around us. Our connection to all these living spirits helps determine the kind of intimate life we live. (p. 84)

In a similar vein, O'Donohue (1997) advised, "To truly be and become yourself, you need the ancient radiance of others" (p. 83).

9.7. Summary and next steps

Trees, fungi, crows, and other species along with the land itself have been largely left out of love discussions, even when their actions match well-established definitions of love. Yet, to broaden conceptions of love toward an ecological rather than anthropocentric perspective, a move from the scientific to the eco-spiritual may be informative. From this perspective, eco-love can be understood as luminous, vibrational, and ever-present throughout nature and the cosmos. This light/love has been recognized within all the major religions as well as by Indigenous peoples and nonreligious researchers. Conceptions of this love may work to counteract the biopsychosocial ill effects of anthropocentric love definitions. Eco-love also appears to enable particular transrational epistemologies that expand upon standard education's rationalist epistemologies. In addition to IIC (see chapter 8), this may include navigating landscapes in response to light (see chapter 4) and co-creating stories with more-than-human kin (see chapters 4 & 5). This love may also facilitate the *knowing with* that can lead to clairvoyant and premonitory connections (see chapter 7). Future research in this area might explore specific pedagogical activities that promote eco-love and widen love conceptions among student groups of varying ages.

Maybe popular culture has it backward when encouraging us to love ourselves first before trying to love another. This perspective may, in fact, be worryingly human-centred and potentially narcissistic because it operates from an assumption of our fundamental separation (starting with the self) rather than an inherent sense of relationality (starting with the relationship). To love well, perhaps we need to spend less time contemplating ourselves and more time recognizing the myriad and potentially infinite ways we are already loved, by trees, by

water, by the sunlight, by the land beneath our feet. Feeling and acknowledging love in this way is (perhaps paradoxically) profoundly humbling. But this humble and ecologically-connected state is a much better place from which to make decisions that affect the ecosystems around us. Elisa Aaltola (2019) concludes, “Love requires letting go of self-grandeur, and replacing anthropocentrism with love requires letting go of grandiose beliefs concerning humanity. This leads to the next step of attentive love—that of humility” (p. 198).

Learning about the principles and practices of Tao (Yang et al., 2019) or practicing IIC may help toward this end because they position learners, in part, as recipients of love. Love, as we know, is the ultimate transformative agent. If we want people to act rightly toward the earth, we might begin by helping them notice the profound generosity, beauty, sensuality, and abundance of the natural world, that is the ways the world already expresses love toward us. And, from there, we might begin to sense the luminous light/love that can enable us to know one another in ways our current theories of love tend to overlook. If the shimmering spark of love in me can remember and be touched by the shimmering spark of love in you, I can know you, your needs, your state, your being, and your worldview in ways that extend far beyond what my brain alone can learn.

9.8. References

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Summary of Findings

The crisis of environmental degradation has gone hand-in-hand with the crisis in the relational capacity of techno-industrial humans, both of which are hampered by the marginalization of deeply relational epistemologies. Love for land, bodies of water, and more-than-human kin typically runs counter to capitalistic goals and education's rationalist orientation. Promising and transformative transrational ways of knowing are routinely denied in educational settings and by the culture at large. Our lack of bonding, commitment, compassion, devotion, and understanding to land and our more-than-human kin may be a primary cause of environmental degradation and the first issue to address in ecological healing. In other words, our wounded capacity to love *with* the land and more-than-humans has resulted in short-sighted, repeated, and potentially catastrophic environmental harms. Understanding this dynamic means redefining love from an ecological, rather than anthropocentric perspective (i.e. love as a solely human experience) and allowing for a shift from the material to an eco-spiritual orientation.

The linked problems—environmental degradation, epistemological marginalization, and wounded relationality—can be pedagogically addressed in several ways. Reading high quality love fiction neurobiologically and imaginatively supports young people in their own relational capacity. By extension, reading high quality ecofiction can neurobiologically and imaginatively support young people in developing bonded and attuned relationships with the more-than-humans around them, particularly when paired with wild pedagogy activities. Relational limitations can be further addressed by examining and playfully reimagining the individualistic orientations of the English language. In addition to reading fiction and making eco-linguistic adjustments, the act of storytelling itself can be expanded to make space for marginalized but relational epistemologies. Can we begin to listen for and talk about transmaterial ecocritical stories? Can we collaborate with more-than-humans to tell them? What would the writing—the crafting of language and form—look like in that case?

I have argued for love to become an accepted medium for learning for the sake of supporting cognitive and cultural diversity, as well as for healing our wounded relational selves. Hopefully, this move can help halt the rampant wounding of the natural world and its ecosystems. In addition to the practices in the previous paragraph, what pedagogical activities might benefit that cause? If clairvoyance, premonition, distance healing, dreaming with, and being called by radiant light really are aspects of love epistemologies, how might educators enable them—or at

the very least, not stand in the way? I am reminded of a class of nursing students I taught a few years back. I showed them an article on nurse intuition, wondering if any of them had ever experienced something related in their personal lives. To my surprise, all of them had to some degree or other. For example, one student inexplicably and spontaneously had a horrible feeling that her cousin, who lived in another town, had been hurt. Later that day, she discovered the cousin had been in a car accident. Interestingly, the students were very shy initially about sharing their experiences and seemed worried about being laughed at. How can educators be active in removing the barriers to these kinds of knowledge sharing? How can ecocritical storytelling and playing with the relational elements of the English language help in these endeavours?

In my own classrooms, I attempt to support students in multiple ways, overtly and more privately. Privately, I perceive each student as sacred, as containing light and purpose. They are sacred in and because of their differences from each other and from me. My goal is to help them be more fully their own selves, their bettering and bettering version of themselves. I don't bother to tell them this, but I feel it. Perhaps, they perceive it on some level through the way (respectful, attentive, I hope) that I speak with them. I also overtly ask them in multiple ways and at multiple times to consider each other in more compassionate, friendly, respectful, and attentive ways. I encourage them to play with language, with genre (even academic research writing), and form in whatever ways feel right to them. I attempt to stretch their epistemological and relational boundaries with carefully chosen love and ecocritical literature. When possible, within the constraints of the system, I engage them with love fiction (such as discussed in chapter 3) and take them outdoors and assign them homework outdoors (such as discussed in chapter 2). For example, midway through a stressful term, I will cancel all other homework for the day (due to their time constraints) and have them spend an hour outdoors, simply enjoying themselves and observing nature. My students, who are typically stressed, multitasking, indoors, and overworked, have regularly surprised me with how intensely and positively they react to this simple assignment.

My next research project also aims to tackle the sticky issue of truthiness. Just because some transrational knowledges prove accurate and helpful, does not mean all transrational knowledges (or "knowledges") have some basis in reality. Excessive imagination, wishful thinking, and needy and clingy heart-love can interfere as much as skepticism or mental imbalance. In between complete skepticism and unquestioning acceptance lies a multitude of rational means of assessing the transrational (the *trans*rational is not, after all, *ir*rational). Can eco-philosophers and eco-spiritualists have meaningful conversations about these assessments?

Similarly, if we educators are going to foster more knowing through the psychic element of love, conversations about ethics (such as other's privacy) and dangers (such as protecting against malevolence and not becoming a psychic sponge) need to be had. These are things I learned on my own—and often the hard way. It is entirely possible that some very fragile, unstable, or ethically dubious individuals need extremely cautious guidance when opening to love epistemologies. In these cases, would love epistemologies be healing or destabilizing or dangerous?

Ultimately, love enables us to *know* in ways that are otherwise unavailable, a knowing that is intimately linked with mutual healing. This knowing, as seen in the practice of intuitive interspecies communication, for example, leads to research, teaching, and healing processes that collaborate with trees, plants, forests, insects, animals, stones, and the land itself. In addition to ecological healing, love epistemologies have potential to foster greater peace and love between humans. This thesis theorizes that from an eco-spiritual perspective, love is luminous, radiant, and ever-present in all beings/matter as well as in spaces beyond known materiality. Introducing young people to a natural world that is fundamentally and profoundly loving, where their sense of belonging is ensured, and engaging them in activities that foster shared love can potentially radically alter the suffering of both. Love epistemologies are fundamentally healing, expansive, and transformative.