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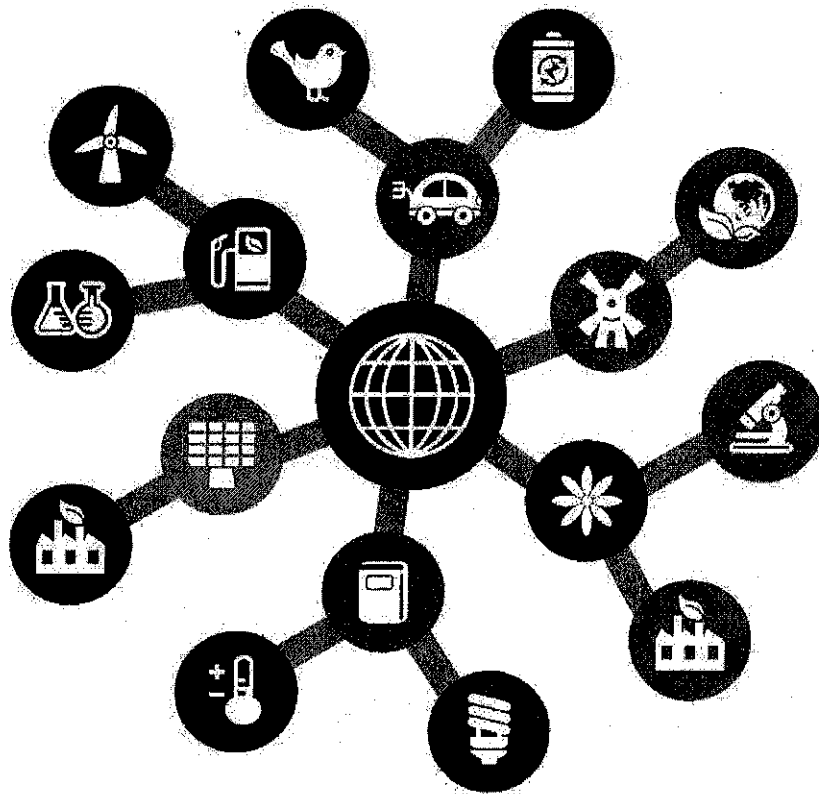
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INTERNATIONAL HANDBOOK OF

Research on Environmental Education



Edited by
Robert B. Stevenson,
Michael Brody, Justin Dillon,
and Arjen E.J. Wals

AERA 

Published for the American Educational Research Association by Routledge Publishers

INTERNATIONAL HANDBOOK OF RESEARCH ON ENVIRONMENTAL EDUCATION

The environment and contested notions of sustainability are increasingly topics of public interest, political debate, and legislation across the world. Environmental education journals now publish research from a wide variety of methodological traditions that show linkages between the environment, health, development, and education. The growth in scholarship makes this an opportune time to review and synthesize the knowledge base of the environmental education (EE) field.

The purpose of this 51-chapter handbook is not only to illuminate the most important concepts, findings, and theories that have been developed by EE research, but also to examine critically the historical progression of the field, its current debates and controversies, what is still missing from the EE research agenda, and where that agenda might be headed.

Published for the American Educational Research Association (AERA) by Routledge Publishers.

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This handbook is dedicated to the pioneers in the field of environmental education who had the foresight that education and learning are crucial in finding pathways that allow humanity to live on this planet in an equitable and just way without compromising its carrying capacity while maintaining the integrity of all species.

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(Un)timely Ecophenomenological Framings of Environmental Education Research

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One-Ear

One-ear is a furry female grey kangaroo. A passing buck must have nibbled off part of her left ear in the frenzy of mating, well before she hopped into the place we now share. She hopped into my world four blisteringly hot summers ago when only parched, cracking clayish dirt surrounded our home—a modern but rustic dwelling built from one hundred year old handmade “reds” adjacent to a recently declared national park in central Victoria. Her hopping was earnest but hesitating, scanning, and foraging for any remnant weeds to nourish her depleted body. I later realized she was also feeding her utterly vulnerable joey, suckling in her pouch, probably unsuccessfully, given the absence of any grass. We’d endured a lengthy decade-long drought (sic)—its dusty dryness fills the nose and empties the mouth. Or, the arid consequences of anthropogenic climate change where the fire-threatening number of days in a year predicted to exceed 40 degrees Celsius will rise over the next two decades from about 10 to nearly 30 . . . but kangaroos do not count, in more ways than one. The trees and kangaroos know the bush much better than we do—their space is diminishing, as are the sources of replenishment, hence One-ear’s summer bold entry to our place. Once she even came inside the house when our then eighteen-year-old daughter left the front door wide open!

I watched her closely that first year of what proved to be an ongoing cross species encounter over the four years now. The initial glances we exchanged were from afar—through our front window which she often peered into, or from outside in the wilting garden where, strangely, she didn’t seem to mind my presence as those innocent or bewildered glances turned to face-to-face, body to body gazing. Perhaps her patience tapped my curiosity. I’d seen her on different occasions, not noticing her pouched joey. But when I did see the bulge move, I recall that somewhere, or was it time, an anxiety welled from my stomach.

I’d heard elsewhere that mother kangaroos can’t reproduce for a number of seasons if an in-pouch joey dies. But that is probably a myth, or story. I don’t care as her presence seduces my interest and worry. One-ear is desperate for food, as I guess her joey is and who, occasionally has raised her little grey face from the precarious security of the pouch. Her dark, innocent eyes meet my gaze, time and time again. I had also noticed how frequently in the heat of the evening One-ear licked the short grey-brown bristly fur on her front quarters and constantly dribbled in what I presume were bodied attempts to cool off. She doesn’t move much even when I gently, silently venture towards her. Kangaroos have poor eyesight so their looking is a prolonged and intense one. So how is it they know how and when to jump high over the fencing wire that surrounds our place and whose thin, jagged strands separate the national park from my property—a legacy of the previous owners. I’ve cut down those nasty strands after finding other snared kangaroos’ mangled bodies, sometimes beheaded by introduced foxes or pet dogs on the nightly roam for a feed.

I eventually throw out some old bread, soaked in water. Our dam, emptied of any water for three years, once served as a watering hole for the mob of kangaroos who in the calmer heat of the hot, summer evenings would drink from and wet-down their lean, blood-rich hind and front quarters. The bread encourages One-ear to revisit the next evening. Bolder. I’m surprised, intrigued, and a bit annoyed at myself. Feeding a wild animal doesn’t sit well with my thoughts, a disembodied type of thinking trained by my much study of environmental ethics. I later learn that with urbanization and its encroachment on kangaroo (and other species’) habitat that feeding bread can lead to gum disease and jaw problems, given their customary diet of grass, or whatever they can find when the combination of prolonged drought and overheated dryness forces them into gardens, flower and vegetable plots. Some people

shoot the intruders. I live in this bush place retreat only on the weekends when I return from my academic work in the city—so I rationalize I'm not damaging her, but occasionally helping the joey get through the stifling heat—at least until some late Autumn tufts of grass reappear.

A few weeks later, with the intense summer heat about to give way to its autumn cooling, a clearly hungry One-ear eats the soggy cool bread out of my hand. We creep up on each other, still exchanging glances—me stooping to keep my body lower than hers so as to not scare her—she (and joey) desperately hungry. Have I trained part of the wildness and otherness out of her? I'm delighted and annoyed, still.

Three summers later, joey, now "Grey-face," and One-ear return annually to my/our place's desert. It's even hotter now—a 48-degree Celsius day with 70-kilometer per hour Northerlies fuelling a blitzkrieg of fires around Victoria. Their devastating consequences spread instantaneously as global news. One hundred and seventy three human lives were lost, as were uncounted animal lives, and with massive "collateral" property and "nature" damage. One-ear is still too bold, and hungry, and shriveling in the heat—something I suspect a somewhat nervous Grey-face is yet to fully experience, in the same way, as three years ago when she was being nourished in that first intense summer for her by One-ear's share of a meager handout of bread. Over the years, I have learned to communicate with One-ear and Grey-face. My body crouched, as if to hop, with arms angled upwards to my head, palms intermittently twitching outwards to face her—occasionally mimicking a magpie's warble or kookaburra's laugh, or perhaps a threatening human sound like a car's engine or chainsaw. Each kangaroo ear can independently sweep around a 150-degree arc to maximize protection from possible predators. The glances and gazes remain—the eyes mean a lot! We also share a limited range of oral communications. The "dsttd-dsttd-dsttd" to say "hello." Or the "uerrrgggghhhh-uerrrgggghhhh" that I sometimes "grunt" (like an unwanted buck) to discourage One-ear's "overly aggressive" feeding from my hand. Over the years, I've taken a few heart-felt scratches on my wrists as she paws for the wet bread. Her nose twitches in my presence; why I don't know and when she is close I detect smells I've never encountered mixed with the unmistakable traces of urine. Again, I don't care; nor does she.

A now almost independent Grey-face occasionally follows One-ear on to the more-parched clay of our place. But I'm forgetting, as we are prone to do. It's not really our place, is it? It's an ongoing negotiation over time-space of our (currently) lived senses of time, space, and bodies represented as in-between nature and culture. Our place slowly started a long, long recyclical time ago with/in the original Jaara Jaara's Country and the later Dja Dja Wurrung language group, even well before them in nature's own time-space and, most recently in the accelerated linear time and "place" of the first whites who colonized the area/land and called it "Mandurang" (the

indigenous term meaning black cicada) in 1852 for agricultural purposes so as to provide food for the gold diggers and that riches "rush" and crash into country and nature. So "our place" might only be as aesthetically, ethically, and politically good as the sensitive and sensible custodianship offered by I/we to that time-space.

Before the ghastly, tragic, deathly fires we had experienced a relentless "record-breaking" three consecutive days measured by scientific means above 43 degrees Celsius. Those normally cool, locally handmade reds my house is built from eventually uncomfortably soak up such a prolonged heating; but we will not buy an air conditioner. My body is a better measure of the combination of ambient air temperature, hot northerly breeze, changes in humidity, ground conditions, cloud cover, and solar intensity. The dam is dry, cracked and wrinkled as each minute clay grain is sucked even drier and smaller of any remnant moisture. As it does with my lungs when I venture for more-than-a-few-minutes in reexploring the national park place surrounding "my" home. Yet, the climate change skeptics prevail politically while Copenhagen is a global and moral failure and betrayal. I still throw out some wet bread. And One-ear is still panting and dribbling a great deal. Almost finally, I never see One-ear and Grey-face together. Another mother with joey in-pouch has taken their place, there is no rain or grass, but will I feed them?

Ecophenomenology as Normative Reflexivity

A specific aim of the above story is to tap into the reader's sensitivities and sensibilities about our individual and collective being "of" nature as well as in, with, about, or for particular aspects of the "environment," a term that just doesn't do justice to what I'm trying to express and reveal. In general, I describe a deeply felt and somewhat historical relationship of a number of beings, animate and inanimate, but always "living." The felt and lived episodic interactions between One-ear and I started spontaneously in the present on the urban/rural and culture/nature "edge" with a repertoire of face-to-face glances, as they occurred in a particular site called home.² Over more time, the *ofness* of our human and animal natures described above has ultimately anthropomorphized into one of those derivative forms of a once "nature" and "country" now fragmented into many "natures" by the dehumanizing and disenchanting excesses of modernity—the possessively "our place" that surrounds the house and home in which I live and fleetingly belong, as it is shared temporarily with One-ear and Grey-face.

The first narrative, and three others following, are an attempt to recapture and sequentially represent this *ofness* of nature as a form of body-time-space unfolding of experience and manner of *ecobecoming*. Pedagogically, *ecobecoming*, potentially, is an end-in-view for environmental education and, if so, sets in motion the intellectualized need for revitalized framings of inquiry so as

to better appreciate and understand that now (un)timely *imaginary* of becoming other/more-than-what we are now (e.g., Grosz, 1999). As far as texts go, the four narratives included in this chapter mirror a deeper meaning, value and usefulness of the ways inquiry into the *nature of experience* and *experience of nature* and their *relations* advances a vitalistic dimension of environmental education research and, indeed, critical approaches to curriculum theory and pedagogical development.

In particular, the four stories used in this chapter recall and retell the somaesthetic and ecopolitical sensibility about how living, breathing, feeling and meaning/sense-making *beings* are an "inalienable presence" of phenomenal "things themselves" that are "already there" (Merleau-Ponty, 1962, pp. vii–ix). That is, we tend to forget what we are; this chapter partially serves as an (un)timely remembrance of our "ofness" of natures and, therefore, posthuman worthiness of reinclusion in any framing in environmental education research about the researcher and the researched. I locate this vital presence of bodied beings and things of nature somewhat pragmatically in the recent social construction of place (Tuan, 1977). In doing so, I stress the *intercorporeality* or intersomacy of animate beings existing of and within proximal aspects of nature, our own and others, be they human and/or more/other/wilder-than-human. My aim, therefore, is to reveal the mutually constitutive "nature," to play on that term, of an ecocentrically disposed and re/soma/moralized imaginary of such still elusive natures via an ecologically attuned interpretation, or *hermeneutic*, of such a soma/intercorporeality and its/their time-space movements, richness, and complexity (e.g., Abram, 1996; Sheets-Johnstone, 2009). The narrative disclosing of the unfolding phenomena of an "ecological" self embodied in and enframed by nature's past, present, and imagined ecological affordances is, for the purposes here, an ontologically *and* epistemologically revealing interpretation of many natures. This phenomenological, epistemological, and ontological, and methodologically inclusive entrée to our *ofness of nature* is barely visible in most current accounts of, and future imperatives for the framing of and methodological development of environmental education research, curriculum theorizing and pedagogical innovation.

An (*eco*)⁴ *phenomenological* approach to the (un)timely reframing of environmental education and its research addresses this lack because of phenomenology's historical interest in retrieving the *lived* nature of human experience, the role of perception in sense and meaning-making, and conscience, consciousness and understanding of them, and the responsibilities for such relations such insights might invoke.⁵ Mention here of body(ies) and their intercorporeality must be qualified immediately due to the availability of the term "somaesthetics" and the strong contribution it makes to the stronger democracy of fully bodied selves, and others, entailed in its fleshing out in the everyday (e.g., Jay, 2002; Shusterman, 2008). The notion of somaesthetics strongly incorporates the intrinsically meaningful aspects

of a renewed human understanding (Johnson, 2008), the reclaiming of the sensuousness of nature experiences (Abram, 1996) and, inevitably, the conceptualizing and contextualizing of a somaesthetics and ecopolitics pertinent to the critical and justice aspirations of environmental education and its research.

Somaesthetics, as a conceptual driver of the four stories used in this chapter underpins the complementary theoretical exegesis here of the role and rationale for ecophenomenology but is responsive to what has become known in some quarters of theory as the "corporeal turn" (Sheets-Johnstone, 2009). And, as I have attempted in a somewhat transdisciplinary manner in each and all of the four narratives, the turn to corporeality invokes other turns now prominent in philosophy and theory, such as the *spatial, wild, and animal*. Each of those turns in theory is gaining some attention in environmental education research but they are not well linked to interpretations or explanations of the felt/lived embodied body and its primacy of movement (Johnson, 2008) in the transdisciplinary narrative form and ecophenomenological framing of inquiry and research pursued here.

Some cautions. The narrative writing, or textualized form of production of knowledge, of my animated or animal-like relationship, in and over time-space and in place with One-ear and Grey-face, is descriptive, expressive, and, unavoidably, reflexive in a normative sense. It is critical of the orthodox and invariably anthropocentric and allegedly neutral meanings attached to phenomenologically descriptive and methodologically bracketed accounts of particular, ordinary lived experience.⁶ Normatively, the ecological/ecocentric spin my text introduces for critical purposes blurs the customary phenomenological distinction of the *is* of description and the critical *ought*, the latter unfolding sensibly beyond the pretension of neutrality in each and all of the narrative productions. To those theoretical turns I employ more broadly in amplifying the somaesthetic role of ecophenomenology, methodological innovation can also be added to the framing envisaged here. In phenomenological circles sometimes used in education research, we are indebted to Max van Manen's (1990) formulations of the science of lived, human experience and its associated pedagogical tactfulness. Beyond the still anthropocentric applications of van Manen's work, somatically driven phenomenological innovation consistent with the purposes of this chapter can be found in, for example, Sarah Pink's (2009) approach to the doing of *sensory ethnography*. Pink advises the researcher to use all of his/her body senses in gathering and interpreting data about the phenomena/on under investigation. Pink asks the researcher to do the same with the researched. Moreover, better known to environmental education researchers, David Abram's (1996) notion of *synaesthesia* is a more ecological and *ecocentric* account of the fusion of the senses where that vital, feeling body(ies) of/in nature

outlined above in the narrative introduction and can be seen to act as a source and means of datum about self, nature, species, and others, and their relationality. This fusion, seen within the various turns used in this exegesis, stands against the tendencies of modern positivist science to reduce things—be it bodies, the world, nature and so on to, for example, five disaggregated and individualized sensory inputs. *Synamnesia*, Abram reminds us, is the forgetting of the senses and invoking of the loss of meaning and value in what it is to be human. One-ear's story, therefore, is a somaesthetic account of a sensuous and intercorporeal unfolding of our relational and collective being. Or, if you like, a foray into the human condition and its oneness of nature and, for pedagogical tact here, an expression and illustration of one form of *ecobecoming*.

The isness of the oneness of experience sensitized by the various turns outlined above gestures to the ecocentric qualification of that somaesthetic experience.⁷ The obvious limitation is that such a narrative account of the unfolding of experience and a meaningful *ecobecoming* can only ever be partially represented in and as (anthropocentric/anthropomorphizing) text because many of the somaesthetic and synaesthetic qualities, moral or somaesthetic intuitions and conundrums, and ecopolitical imperatives of such ontologically attuned inquiry defy that fullest expression in their conversion to the language of environmental education research (e.g., Payne, 2005a). Inevitably, the textual production of that nature/experience with One-ear and its theorization slides inexorably into the *embodied mind* or *mind embodied* tensions that have occupied other researchers grappling with a nondualist and ecological ontology (e.g., Gallagher, 2005; Johnson, 2008; Lakoff & Johnson, 1999; Weiss & Haber, 1999).

This chapter, therefore, offers a starting point only in the quest for an ecocentric framing of ecologically oriented research, its conceptualization, contextualization, representation and legitimation and associated quest for value and usefulness. In summary, the mood, manner, form, and type of researcher reflexivity entailed by the ecophenomenological framing advanced above is neatly introduced by Merleau-Ponty (1962, p. vii). He recommended that we place in "abeyance the numerous assertions arising out of the natural attitude, the better to understand them . . ." so as to reachieve "a direct and primitive contact with the world." Gaston Bachelard's (1958/1964) views are also helpful. He asserted the phenomenological hermeneutic constituted a major critique of conventional forms of knowledge production.

A philosopher who has evolved his entire thinking from the fundamental themes of the philosophy of science, and following the main line of the active, growing rationalism of contemporary science as closely as he could, must forget his learning and break with all his habits of philosophical research, if he wants to study the problems posed by the poetic imagination (p. xv).

One-ear's story, hopefully, is descriptively and evocatively *critical* in two senses if, indeed, a renewed imaginary in environmental education research is now needed (McKenzie, Hart, Bai, & Jickling, 2009). Or there is a need to reconcile the means and ends of research development in environmental and sustainability education (Reid, 2009). The main warrant of ecophenomenology and the turns suggested above supporting such a frame is, emphatically, a need to better understand the ecocentric nature of experience. This need becomes clearer if there is a willingness or concession to suspending various assumptions in reaching or retrieving, or reimagining and reclaiming our relationships (or connections, or place) with/in/of nature. Such a concession enables us to pursue the ontologically and epistemologically *revealing* research reframings and methodologies that help transfer inquiry into narrative productions about such *unfolding* and *ecobecoming*.⁸

Why critical? First, in moving slightly beyond the normal researcher bracketing of a mere description only of the intercorporeal essence or nature of the interactions between me and kangaroos the normatively reflexive ecotextualization and historicizing of that experiencing hopes to tactfully (van Manen, 1990) arouse "other" wise in the reader a range of intuitions, sensitivities, memories, and, inevitably, sensibilities. The story is pedagogical and political, even to the extent that it highlights the problematic of the consequences of anthropogenic climate change on the manner in which we live in "place" given the complexity of the social representations of the phenomena of climate change (e.g., Gonzalez-Gaudiano & Meira-Carrea, 2010). The revealing and reclaiming I undertake is not so much about One-ear and prevailing drought conditions in most of Australia,⁹ both unfamiliar to many readers, but more so about the unfolding *relational*, and *ecological* dimensions of the intercorporeal dimensions of our individual *being of nature* and collective *ecobecoming in "natures"* (e.g., Embree, 2003). Bodied, synaesthetic accounts of our individual, collective, and historical being and becoming in time-space are, invariably, missing from the discourse of education but are, indeed, belatedly finding a more *ecoaestheticized* presence in the discourse of environmental education research (e.g., Dunlop, 2009).

Second, an ecocentric approach flagged by the inclusion in environmental education research of ecophenomenology's interest in the body in time-space, through the corporeal, spatial wild and animal turns, supported by sensory-methodological innovation hinted at above is highly suggestive of a significant move in the framing of research that goes well beyond the emphasized orthodoxy of heavily rationalized approaches to research, treatments and analyses of data as well as mind-focused teaching, learning and knowing, and their corresponding research designs in (environmental) education. If so, ecophenomenology, as suggested here in the form of an ecopedagogical narration of human-environment *unfolding* and *ecobecoming*, via four limited stories, signals for inclusion a broader

and critical role for a richer, less instrumentalized, more somaestheticized meaning-making purpose of education.

Third, to be sure, the injection of a critical purpose in an ecophenomenology and intercorporeal manner is unabashedly soma-political for us academics/researchers. Deconstruction via the linguistic and textual turn in theory best represented by poststructuralism is a valuable intellectual strategy in decentering imagining differently and incorporating the "other" whose presence in such texts is too often absented, and will be addressed later. This line of thought has a primary emphasis on texts but may, however, have little appeal to the researched, or learners and the public beyond those occupying the academic role (Archer, 2000). Its hopeful praxis remains unclear in environmental education research. To be clear, ecophenomenology, as a bodied, experiential, and methodologically lived negation of those dualisms that occupy much textually focused deconstructive attention can be located sensibly and, eventually, conceptually in an amalgam and reassemblage of the corporeal, spatio-temporal, animal and linguistic turns in theory (e.g., Grosz, 2004; Law, 2004). The stories told then, by both researchers and participant inquirers, may be far more accessible to a much wider audience. Stories have effect as well as value. The intersection of these turns in an ecophenomenological de/reconstruction promises a more ecological, democratic, and everyday form of intercorporeal responsiveness, relationality, and praxis. It troubles our currently problematic of *being* a researcher of the researched (e.g., Neilson, 2010), as flagged in the approach to and narrative representation of the lived nature of an unfolding relationship of *becoming* more/other with, for example, One-ear.

Leucy as Human-Induced Climate Change

Sandi Kogtevs is a wildlife rehabilitator who lives near fire-affected areas. Leucy—a twelve-year-old female kangaroo, was held at the animal shelter for some unexplained reason. Leucy followed Sandi everywhere. If (human) visitors arrived, Leucy would stand with them in a circle "waiting to have her photo taken—she even developed that¹⁰ 'smile' for the occasion!" On that terrible bush fire day in which so many lives were lost and damage to nature occurred, the screaming wind drowned out Sandi's calls to her. Two days later, Sandi found Leucy—terribly weak, with badly burned paws and tail, in the scorched tree forest, her young joey nearby, dead but not burnt. A grieving Sandi somehow managed to carry the large and heavy Leucy back to the home. Despite constant care and hand feeding of grapes and other special foods, Leucy stopped eating due to a caustic smoke inhalation affected throat. Sandi sat with her till she died (Decortis, 2010).

Ted Toadvine's (2009, p. 6) *Merleau-Ponty and the Philosophy of Nature* addresses three interrelated questions. They are, "what is the nature of experience?" and "what is the experience of nature?" and "what is their relation?" Their nexus around the *relational ofness* of the

nature of experience reminds us of Dewey's (1938/1988, p. 31) prescient call for an "intelligent theory" or "philosophy of experience" in education. Those early formulations in the 1970s of environmental education emphasized notions like experiential learning, education, and interdisciplinarity. The still unfulfilled challenge of developing a theory of experience in education for different contexts and circumstances remains critically relevant to researching the policy, curriculum, and pedagogical assumptions and imperatives of environmental education for what they say, or don't, about the meanings of "experience" and the "learning" role and value of it (e.g., Rickinson, 2001; Rickinson, Lundholm, & Hopwood, 2010). The interdisciplinary task of theorizing experience remains elusive, or is avoided, even by specialized advocates of experiential education who now concede this lack or gap (e.g., Fox, 2008; Itin, 2008), let alone by those in environmental education who might promote a needed ecocentric vision of educative experience, as pursued here that brings the ecophenomenology and anthropology of experience (e.g., Abram, 1996) into dialogue with Dewey's call and the various turns recommended here in, for example, descriptively revealing the soma-time-space *unfolding* of experience with One-ear. In that textualized representation of knowledge, I have tried to represent an (my) episodic and serial somaesthetic experience of nature as a nexus of the *nature of experience* and the *experience of nature*, following Toadvine, in the specific living of that relational experience over time-space but in the now socially/textually constructed context of place.

Notwithstanding the limitation of such knowledge representations, all of the narratives in this chapter highlight the ontology-epistemology interfaces Toadvine directs us to, but in the ecological sense of those interfaces. They, it must be said, resist the dominant (Western) ontological presumptions rife in education research that split mind-body and I-we-world into separate entities. This enduring Cartesian mindset hampers our best efforts to practically foster or conceptually imagine ecocentricity along the somaesthetic and inter/transdisciplinary lines described above while also negating efforts to reconcile theory-practice gaps in curriculum and pedagogy. Hence, the narratives in this chapter are part of a Deweyan-like experience theory concerning the nondualist intersections of experience and nature. They are indicative of a phenomenological ecology (Brown & Toadvine, 2003; Toadvine, 2009). The same sort of logic can be found elsewhere in curriculum theory and pedagogical development in what is a "critical ecological ontology for inquiry" (e.g., Payne, 1997, 2006). The mutually constitutive somaesthetic ecologies, ontologies, and epistemologies are discernible everywhere in the urban everyday where traces and memories of nature live resiliently (e.g., Lefebvre, 2004; Lingis, 2007) and are available for critical investigation and revealing. Working continually toward these deeper layers of ontological unfolding, or corporeal phenomenology as a phenomenological ecology underscores the broader

ecocentric purposes of this chapter about the pressing need in environmental education research, curriculum theory, and ecopedagogical innovation to incorporate the lived somaesthetics and ecopolitics of ecologically attuned and afforded experiences.

Finally, by way of lengthy introduction to the role, potential and rationale for ecophenomenological framings, it is important to acknowledge that some undertheorized aspects of it can be found in the historical conceptions and constructions of environmental education and its research.¹¹ One key example is the action research and participatory processes, principles, and praxis emphasized in the socially critical perspective (e.g., Fien, 1993; Robotom, 1987). Later, Ian Robotom and Paul Hart (1993) outlined the initial case for incorporating ontological considerations into the nascent scholarly concerns the field had about the role of epistemology and methodology in knowledge production efforts. Traces of the ecophenomenological appreciation of the deeply felt/lived nature of (environmental) experience can be found in the "significant life experience" literature (Chawla, 2002; Palmer, 1998; Tanner, 1980). "Currents" or undercurrents of it can also be found in Lucie Sauvé's (2005)¹² mapping of pedagogical movements in the field. Methodologically emergent indicators are displayed in autoethnographic "memory work" (e.g., Kaufman, Ewing, Hyle, Montgomery, & Self, 2001), ethnography (Blum, 2008), narrative inquiry (Hart, 2003), and autobiography (Doerr, 2004). A handful of publications employ ecopoetical, ecocomposition, ecoart, and/or ecocriticism-like methods and representations. Poetic/illustrative examples of nature as lived sensuously and, therefore relationally are occasionally published (Berryman, in Sauvé, 2005; Cole, 1998; Dunlop, 2009; Jardine, 1998) but, self-consciously, avoid the theoretical exegesis included here. These more aesthetic ends-in-view for research in environmental education remain a challenge (Reid, Payne, & Cutter-Mackenzie, 2010).

Notwithstanding critiques of some of the above *positionings* in environmental education research, the hidden or nascent value of those studies that have focused broadly on experience(s) but perhaps not the nature of it/them, lies in conceding the place of perceptual, embodied, and relational experiences in settings, places, and versions of nature of importance to the aspirations of the field. The problem is not so much the critique of these positions but more so the need to get at the relations between the nature of experience and experience of nature, following Toadvine, given that it has not properly been examined, articulated or represented and theorized in environmental education. This comment clearly presumes the want of a still absent ecocentric theory of experience, following Dewey in dialogue with Toadvine and Abram, from the *inside* of environmental education by the community of environmental education scholars, researchers, pedagogues, and practitioners (Reid & Scott, 2006). More generally, it also suggests the difficulty we have in shedding or suspending the exclusive anthropocentric assumptions and intentions

that dog the field, carefully noting Merleau-Ponty and Bachelard.

The methodological, interpretive, and representational creation of a lived duality of ontology and epistemology called for above and illustrated empirically (and somewhat autoethnographically and ethnographically) via the narratives told about One-ear, Grey-face, and Leucy go beyond the sources suggested immediately above. The empirical quest of "soma-time-space" theory and philosophy of experience/nature, crucial to the way curriculum and pedagogy might be reconceived, constructed, and critiqued, is more-than-challenging but possible. Thus, the value and probable metausefulness for the purposes of this chapter of conceiving the ecophenomenological narratives and exegesis as an "assemblage" (Law, 2004) of an imaginary framing device that is located heuristically within the various soma/eco-oriented turns outlined above as they, in turn, might critically elaborate and resensitize conventional interpretive methods like [sensory] ethnography, narrative inquiry, collective memory work, autoethnography, ethnography, and literary approaches like environmental criticism and ecocomposition in anticipation of a very somaesthetically revitalized environmental ethics and ecopolitics, or "ecoliteracy."

Mindful, therefore, of Robotom and Hart's (1993) prescient call for including epistemological and ontological considerations in the socially critical approach to research (see also, Lotz-Sisitka, 2009; Price, 2009) it is important to note, in summary, where environmental education research as a metanarrative/story currently sits ecophenomenologically, following Merleau-Ponty and others. Martin Heidegger (1927/1962, p. 60) preferred, "Only as phenomenology, is ontology possible." Heidegger (p. 62) went on to argue that the way of accessing and revealing, or making known, an ontology of being was that its phenomenology is a *hermeneutic* of "working out the conditions on which the possibility of any ontological investigation depends." Paul Ricoeur's (1992) *Oneself as Another* is illustrative.¹³ Thus, in this chapter, the (un)timely but overdue employment of an ecophenomenological framing for research responds in a partial but focused way to those difficult challenges listed above via the complementarities of the four narrative and theoretical exegesis. Outside the limited presence of ecophenomenology in environmental education research noted above, excellent examples of this type of inquiry and representation of experience lived can be found, for example, in Alphonso Lingis' (2007) recent work on the "first person singular." He writes poetically about being here, time, about space, about the everyday and its urbanity or cosmopolitanism, about voice and visions in ways that crystallize the intentions of this chapter but in disparate ways.

In all, Toadvine's (2009, p. 6) ecophenomenology calls for a richer "philosophy of nature that includes ontological, epistemological, aesthetic and theological dimensions." There are many interesting challenges for environmental education research. An ecophenomenological orientation

to framing of research (and critical interrogations of curricula, pedagogy, texts, etc.) does indicate a “methodological” approach and means of ontologically and epistemologically accessing the underlying ecocentric nature of our experiences of natures. Additional pointers are still needed to return this text to those normative grounds of a relational experience as they were lived ecologically in my everyday encounters with One-ear and Grey-face. Here, I am drawing some threads of the exegesis back into the illustrative narratives as part of the anticipation of another remembrance of Merleau-Ponty’s (2003) notions of the chiasm and flesh.

One pointer most worth highlighting is the *feelingness* of our vital, animate, intentional being (e.g., Bai, 2009) intertwined with the “other” of various natures, afforded through their times, according to the spaces presented and absented and the becomings opened “wildly” (Griffiths, 2006) or “ferally” (Fawcett, 2009) in the experience of such things. This sensuously wild/other ofness of nature and the world, in the contexts along the spectrum of the natural and cultural represented here, is the deeply felt, raw primordiality of the intercorporeal and cross species relations of human self and kangaroo placed within the proximal temporal and spatial conditions, as theorized narratively through Merleau-Ponty, Heidegger, Dewey, Toadvine, Lingis, Johnson, Shusterman, and Sheets-Johnstone, to name a few. This pointer to a resensitized primordiality of our *unfolding* condition of our *being* highlights the significance of the ecophenomenological framing as a necessary condition of an *ecobecoming* that is eventually supported by the textually constituted act of offering a normatively reflexive description of my/our experienced relations of/in/with/for nature. That is, for environmental education research, the incorporation of the ecophenomenological framing is a candidate for stronger “commensurability and coherence” of the purposes, means and ends (in view) of such research, and is responsive to some longer term concerns expressed about the field’s development (e.g., Hart, 2005; Reid, 2009).

Absence

Winters, as they are so named, at our place (sic) partially disrupt the persistence and immediate consequences of the dry summer heat. Some rain temporarily disrupts the anthropogenic drought. One-ear and Grey-face’s summer presencing turns to absence. In the gullies, on the spurs and amongst the trees around this cultural space, there is now plenty of grass for them to graze upon, to replenish, renourish, and to renew. I don’t see that but I sense it. My presence isn’t needed. Absence and silence about such things like growth and death reminds us of the importance of such things. I don’t miss One-ear and Grey-face because I know they are there, somewhere, living out their lives in ways that I don’t need to comprehend but, if I try, can imagine. The harshness of sound from the overflying sulphur-crested cockatoos, and echoed laughter of

kookaburra pairs up and down the valley, in the dimmed winter light contrasts sharply with my socially constructed tuning of what counts as music. Occasionally kangaroo mobs bound hastily through the ground-level of our place, or is it sp(l)ace and I keep an anticipatory eye out for the momentary prospect of a reunion with their being, or with One-ear and Grey-face. But, if not, that promise can wait to next summer’s constancy of their droughted presence. The moistness of the now damp surrounds to our sp(l)ace has a peculiar aromatic that contrasts with summer’s delicious lemon-scented gunness—but is best not to consider, too much, because their seasonal time will come.

We feel things unfold in absence that presence doesn’t always reveal. We imagine that which isn’t there—fondly; we become other for time and memory are always present. I chat with my daughter, and some colleagues, about these things. Its inadequate because the ecophenomenological/ontological construction ecocentrically found in these things, and their intercorporeal relationality, eludes or evades this text. But, at least, language helps make the partial case for that which eludes it.

Editorially and interpretively, the above narrative pushes beyond the animality and cross-species focus privileged in the two earlier narratives. One-ear and Grey-face are still (textually) positioned among other things. The “land” and its scape, and history, or my/our sp(l)ace, and there presencing and absencing of things in themselves are equally deserving of attention, but it is hard. The first narrative established the significance of the moral proximity of the “face-to-face”—the glancing, gazing, and rehearsing of inter/soma/corporeal nature of experience with One-ear. It was alert to Levinas’s prioritizing of a preontological *being for* (Llewelyn, 2003; Payne, 2009). The *ofness* of that *being for* is experientially crucial to the “horizon” of how that initial ecophenomenological framing can be stretched imaginatively, temporally, and spatially, into the *unfolding and ecobecoming* emphasized now. And depicted above in reintroducing, for example, how presence, nonpresence, absence, and silence might be incorporated “other” wise as things too in the textualizing of an ecocentric somaesthetics of experience.

Flagged earlier, the later Merleau-Ponty’s (1968, 2003) ontologically central but elusive notion of the *chiasm* is conceptually important. It helps make, again, the case to consider the normativity of reflexivity in inquiry, research, and critique (and their representations) appropriate to exploring the pedagogically tactful question of incorporating presence and absence in the stories we might narrate about how we might become more-than-what-we-are-now in relation to various natures, such as sp(l)ace. Merleau-Ponty’s *chiasm* is an “intertwining” or “overlapping and crisscrossing” (Carman, 2008) of the preconscious perceptual and intentional ofness of our bodies and world, as those terms illuminate notions like the “body schema” (cf. image) and *flesh* in orienting our bodied selves (with)in various ecological affordances “out there,” both presented and absented. The opening narrative is as suggestive as

words/texts can be of this presenced ontological oneness of beings where the lives of my "self" and One-ear twine or intersect into each other and episodically overlap and crisscross according to the presenced affordances in which we "found" our selves, primarily in sp(1)ace. The narrative above stretches this chiasmic and fleshy presence into their temporal-spatial absences, silences, and other potential "others/wilds" that phenomenologically and ontologically provide keener insights into our soma/ethical comportment, provided we are enabled and open to it. Nikolas Rose's (1996) call for a reassembling of the ontological self in research, alongside John Law's (2004) method assemblage mentioned earlier become useful additions to the ecophenomenological framing.

Law (2004, p. 161) is unequivocal: method assemblage is, "the process of crafting and enacting the necessary boundaries between presence, manifest absence and Otherness." Method assemblage is generative or performative, producing absence and presence. More specifically, it is the crafting or bundling of relations in three parts: (a) whatever is in-here or present . . . ; (b) whatever is absent but also manifest (that is, it can be seen, is described, is manifestly relevant to presence); and (c) whatever is absent but is other because, while necessary to presence, it is also hidden, repressed or uninteresting.

The opening narrative dwells on Law's (a). The latter story on (b) and (c). It focuses more enigmatically on, for example, the presencing and absencing, seeing/not seeing and hearing/silencing of One-ear in a more spatially and temporally diffuse sense of the horizons of nature(s), as does the yet-to-be-revealed mystery of a concluding narrative in this chapter. Here, in the *unfolding* chiasmic of the narrative representations there is a more open/wild/other ecophenomenological approach and ecocentric inclination, given the unfolding of circumstance and context. This opening to the unfolding addresses Merleau-Ponty and Bachelard's (methodological) invitation to reflect upon and "suspend" as best we can the rational assumptions we make about the phenomena under study. There were a number of intuitive, spontaneous, embodied experiences highlighted in the introductory narrative about the presencing of the relation of the experiencing of nature. The above story emphasizes some of these enigmatic "others" found in the phenomenological/existentially experienced feelingness, absencing, invisibility, hiddenness and stillness of things that still reoccur over time-space in the episodic nature of the encounters in sp(1)ace with One-ear, Greyface in nature, or anticipations thereof. Perhaps the gaps and "in-betweens" explored all too briefly here (in the third narrative) and their silences are worthy of much greater attention. If so, the textual representation of absence provided an additional glimpse of the ontology of my *ecobecoming* and its time-space-place *unfolding* as a form of somaesthetic (transformative!) *being* (Maitland, 1995). The nature of those experiences and experiences of nature were, basically, where our human

and other than human bodies were rawly presenced and absenced to each other, as intercorporeal, where the politics of silence prevailed (Sim, 2006).

In addition to the stretched ontological politic of reassembling oneself (Grosz, 2004; Rose, 1996) undertaken, normatively and reflexively, about the absences, silences and (un)timeliness signaled above, Brown and Toadvine (2003, p. xi) view ecophenomenology as a retrieval of our forgetting reminds us of another of Dewey's many concerns about the need for an experience theory that contests the stripping of the qualities of experience. Abram's (1996) *Spell of the Sensuous* is a rare treat because his anthropology of experience delves into the sensory basis of our individual and collective *being-in-the-world*. Abram sheds needed light on those Deweyan qualities of experience that we have absenced from our perceptual selves, and how we might go about reembodying and reinhabiting aspects of nature most responsive to the inevitable call for how a philosophy of nature and experience of it might reframe environmental education and its research. Similarly, within that ontological politic, Grosz's (2004, p. 2) account of the *untimely* is a lengthy excursus into matters political. Grosz questioned prevailing notions of agency, structure, geography, and culture. In recanting some of her earlier work in *Volatile Bodies*, Grosz argued that the reintroduction of time and bodies into the politics of ontology and, therefore, phenomenology of experience and nature ". . . serves as a reminder . . . to those interested in feminism, antiracism, and questions of the politics of globalization." To which I would add environmentalism and the fully bodied democracy offered up by somaesthetics (Jay, 2002). Grosz maintained that theorists of the social, the political, and the cultural, notwithstanding the absence of the ecological, ". . . have forgotten a crucial dimension of research" of concepts that inform such politics and serve as a "remembrance of what we have forgotten." With a particular interest in time oriented concepts like *unfolding* and *ecobecoming*, embedded in the scaffolding effect of the narratives presented in this chapter, Grosz's notion of remembrance seems to echo Heidegger's and Ricoeur's concern about the importance to phenomenology (of the body, self) for revealing the "conditions" of our being. Grosz's contemporary focus included, "the nature, the ontology of the body, the conditions under which bodies are enculturated, psychologized, given identity, historical location, and agency."

To be sure, the raw experiences of One-ear, the constructed narratives, her absences and silences are emphatic parts of any remoralized and reimagined narrative concept of selfhood that, for example, Alasdair MacIntyre (1984) and Ricoeur (1992), among others, makes the compelling ontologically hermeneutic case for. Thus, to return, ecophenomenological framing method assemblages and constellations of turns in policy, research, curriculum, and pedagogy might well dwell on the presence and absence of such *conditions* and constructions of presences and absences in any unfolding narrative they

might seek to tell about the *ecobecoming* of the researcher and the researched.

Ecophenomenology's (un)timely Intervention in Environmental Education Research

While Merleau-Ponty didn't openly address the ethical and political implications of his work that might inform an ecophenomenological framing, others who are engaging ecophenomenology do see the importance of meaning and values existing intrinsically or inherently and, therefore, ontologically in nature (Langer, 2003; Wood, 2003). The momentary "glance," another dimension of the "face" (Casey, 2003) in-between One-ear and myself was repeated on numerous occasions; later as gazes. Grey-face is so named. This chiasmic oneness of our intercorporeal relations might be most what (pedagogically) is needed to flesh out how inquiry might proceed in a normatively reflexive manner—more viscerally, intuitively and perceptually in revealing the moral ontology of a somaesthetics and ecopolitics of, in and for or "facing" nature. Acamporo's (2006) ontology deals with interspecies ethics, part of the "animal turn" in theory and through which I "felt" such a relational ethic (and politic) with One-ear, Grey-face and empathy for Leucy and her "keeper." Toadvine's (2009) effort to reclaim a philosophy of nature is also a startling critique of Western environmental ethics. That field, he proposes, is primarily founded on a combination of (environmental) problem solving pragmatism and logical positivism. As such, he argues, alternatives exist.

Indeed, the ecocentric need for a humanly constructive, socioecological theory of education and research development is being foreshadowed. Outlined above, using an ecophenomenological framing to invoke a method assemblage in lieu of a constellation of various turns in theory, the combination of narratives and exegesis employed in this chapter strenuously incorporates a somaesthetics and ecopolitics in *sp(l)ace* but also beyond. The historical remembering of our sensuousness and vitality expressed throughout this chapter inform Dewey's ignored call for an intelligent theory of experience. Their recall and reclaiming are highly suggestive of how a resensitized and heightened normative reflexivity might valuably and usefully be approached in critically retheorizing environmental education and its research.

Reid and Scott (2006, p. 332) asked that we reflect on the maturity, dynamics, and balance of the field's research endeavors, identity, value, and usefulness (see also, e.g., Jickling, 2005; Russell & Hart, 2003). They suggest much research is not yet capable of driving needed self and social transformation and environmental change. Reid and Scott identified a number of potential sources of the field's current lacks and gaps. These included the conservative push for policy-driven evidence rather than research that can inform policy; the orthodox planning of research that is safe, convenient, and conventional and is reflected in the modesty of the research questions

asked, methodologies employed, and politics of inquiry. Reid and Scott concluded the field's effect on policy and educational reform is not self evident, nor is it used or appreciated in related fields of inquiry and endeavor. They probe the need for "harder-to-reach" varieties of research and theory, and how research impact might follow. This probe draws upon a fundamental tension they discern in the field—its explanatory and interpretive powers (or lack of) being derived from theory drawn from the *outside in* as opposed to the reverse—from the field's more indigenous *inside out*. Here, from somewhere *in-between*, I do both in commencing the work of drawing upon (eco)phenomenology from the *outside* and, following Dewey's *inside* challenge for an intelligent theory in education incorporates basic insights worthy of initial attention in ecocentrically developing a comprehensive theory, or ecology of a somaesthetics and ecopolitics of environmental education and its research, including a reassembling of the researcher and researched.

We might ask, therefore, if there is something distinctive, or *original*, in environmental education and its research that can encourage researchers to generate adequate, valuable and useful ecopedagogies, curriculum theory and views of knowledge production, representation and transfer. This question is posed and probed against the corrosive rise of "postintellectual" *conditions* of our academic and scholarly work (S. Cooper, 2002; James & McQueen-Thomson, 2002) whose effects or consequences in environmental education research have been remarked upon by, for example, Reid and Scott (2006). The question of originality, or quest for it *in* environmental education research, demands a more fully or ecologically responsive accounting for the ecocentric-driven triad of ontology-epistemology-methodology in research and is worthy of both internal attention in the field and broader concern to the development of educational research (Reid, 2009). How might we in environmental education, for example, examine and explain the demise of the concept of (educative) experience in education? What are the qualities of educative experience when we consider the "place" and role of "meaning-making" and its values as part of learning, knowing, thinking (e.g., D. Cooper, 2006)? Or, what are the consequences of a lack of progress in articulating an ecocentric notion of inter/transdisciplinarity and, by implication, addressing it head on in environmental education and its research, noting the glimpses of it in Sauvé's currents?¹⁴

Most of all given the concerns outlined above about the value and usefulness of environmental education research, it is now (un)timely to "(re)engage the debate" (Robotom & Hart, 1993) about that triad, a meaningful and democratic theory of ecocentric experience and notions of inter/transdisciplinarity in research, policy, curricula and pedagogy. Various constellations of theoretical turns and assemblages of methods might assist. A normatively reflexive ecophenomenological framing will help start up these deliberations because phenomenology's great

contribution is that it starts with experience as it is lived primordially—or naturally, perhaps authentically. It tries to go to the core of our being and becoming. If so, such a debate will interrogate the research questions we pose, the tensions between conceptualizations and contextualizations of such questions, the renewed need for curriculum theory and pedagogical development as they might normatively and reflexively connect with bodies, learners, teachers, educators and, more broadly, the public. Reengaging debate is politically important and should most likely be informed by a transdisciplinary notion of ecocentrism, as it is ontologically and epistemologically revealing in experience, perhaps via the framing of inquiry outlined above. Here, I have indicated how such a framing shapes the epistemological and, inevitably, methodological orientations of environmental education research. Inevitably, that debate about the intersections of the nature of experience and experience of nature and their relations will return to examining how the ontology-epistemology-methodology triad might be reworked into our understandings of the experiences and positionings of the researched and the researcher in the research.

A primary purpose of this chapter about the place and potential of ecophenomenology in environmental education research is working the *in-between* spaces between the binary frames of *inside out* and *outside in*. On one hand, we are now grasping normatively and reflexively for an ecocentric inspired theorization of *experience*, *education*, and, even, *the body* in time-space, in all its soma, moral, social and political compartments. On the other, I argue that the intercorporeal other and wild of *ecophenomenology*, the *sensuous* and *perceptual*, and relationally *more-than-human* and *animate nature* provides a warrant for an original and potentially indigenous frame for environmental education inquiry, as well as for conceiving and constructing pedagogy, curriculum, and policy. Thus, with the notion of ecophenomenology mostly *in view*, and Dewey's challenge inspiring us, this partial and selective conversation of those two starting points for debate does stake a claim for the importance of an ecophenomenological framing for environmental education research.

Ecophenomenological Framings of Environmental Education Research

Most of all, ecophenomenology provides us with a storytelling frame that reminds us that the somaestheticized and memoried body is a sentient, sensuous, and sensible source, or genesis, of preconceptual meaning-making of, in and about environmental relations. It has a great deal to say ontologically and, therefore, epistemologically about a philosophy of nature. My aim in this chapter is to highlight how this vital setting serves as an active experiential and existential site *of* and for inquiry in and with various natures and environments in which the researcher and researched are positioned, live and feel and *unfold* and, therefore, can interpret the time-space sensitivities and

sensibilities of their individual and collective *ecobecoming*. The interpretive and explanatory purpose of combining story as narrative and exegesis is to provide a conceptual resource that helps us (a) appreciate our *ofness* of natures while (b) reversing our alienation and abstraction *from* constructed natures, understood here anthropogenically as the *ecologically problematic human condition*.

As an orientation to, ontologically as well as epistemologically, what we are *of*, our natures, and who we might recover, or reclaim from the bewildering often contradictory barrage of sociocultural constructions and representations, (eco)phenomenology provides an "other" vantage point about the nature of experience of nature. Various epistemologically or/and methodologically prioritized constructions we take as normal or natural might be reflexively and normatively assessed—in the keenest, praxical sense of the commitment of the term critical to various justices, based upon a more liberated, transformative ecological self indicated here. Ecophenomenology promises little more than that start, essentially it nonnaively can act in a soma/intercorporeal manner as a memory of sensuous, animated natures—the human, other-than, and more-than that not only recover the ecology of our *being* in the world and its chronic abstraction (James, 2006) in the modern/postmodern but also and therefore the ecocentric possibility of our *unfolding* and *becoming*. The *slow* notion of an *unfolding ecobecoming* might inform an ecopolitics of ontological resistance to the excesses in (environmental) education research and pedagogical practices of "fast" learning solutions to socioenvironmental problems and issues (e.g., Payne, 1997, 2005b; Payne & Wattoch, 2009; see also Huebner, 1967/1987). They effectively reduce education to the hegemony/authority of rational learning and knowing, and related pedagogies, ordained in the heavily abstracted and disembodied world whose normalization and naturalization we have come to accept. And, if so, hampers the normatively reflexive posing of valuable and useful questions and, inevitably, the commensurability of research purposes, means and ends now quested for in parts of our own discourse. To those ends-in-view for inquiry into and critique of pedagogical, curricula, and policy development, the ecophenomenological framing demands complementary support from a range of critical insights and theories committed to the various justices education might encourage.

It would have been disingenuous to not have acknowledged the limitations of ecophenomenology, and its role and position in environmental education research, as we should expect in positing any theoretical, philosophical, methodological, and pedagogical vantage point. To reiterate, the ecophenomenological framing is a normatively reflexive starting pointed needed in debating research, how it is framed and conducted, and for what means and ends. Here, the exegesis draws upon a range of turns and assemblages that also are partially embedded in each and over the four narratives. Indeed, ecophenomenology is

hardly a method or methodology, as indicated by Merleau-Ponty and Bachelard, among others. It is an approach, a sensitizer, that helps the researcher and researched live the inquiry. And, I have only hinted it through Leucy's testimonial and some existing examples in environmental education research, some of the broader everyday, social, and historical problems and possibilities, potentials, and imaginaries of this ecophenomenological starting point. Otherwise, this chapter might be interpreted as privileging yet another hyper-intensified form of individualism, and methodological individualism. Even methodological nationalism, given the framing here deals with the basis of felt, lived experience irrespective of the various cultural/historical overlays that shape such "experience" and demand description, normative reflexivity and critique. The development of method assemblages and constellations in support of the ecophenomenological framing outlined here is strongly encouraged, as is the pluralistic perspective of returning ontology and its politics, and relations with epistemological considerations to the center stage of research (Lotz-Sisitka, 2009; Payne, 1997) and debate (Robottom & Hart, 1993) in ways that tackle the means-end questions (Reid, 2009). Indeed, the fuller elaboration of a socioecophenomenology beckons. What this chapter does recommend is the ecocentric need for incorporating far more assertively a transdisciplinary somaesthetics and ecopolitics of educative experience in our scholarly framings, conceptualizations, contextualizations, representations, and legitimations of the purposes, means, and ends-in-view of environmental education and its research.

Grey-Face

Many months later in my time but summer again in seasonal time, time alive might have finished for One-ear. I haven't seen her for some time. I'm saddened. The memory gnaws. Another fully grown kangaroo regularly comes to the front of the encultured time-space I still call a home and a place, an unthinking habit. It too seems bold, just like One-ear. I watch carefully through the window over consecutive hot, dusty evenings. She keeps returning. Only until I go outside, stand still and she doesn't back off, do I think this might be a fully grown Grey-face. Her face and gaze are steady, as are mine. I watch her closely—she peers at me in much the same way One-ear's joey did three summers ago. The peer, not a glance, combines the quizzical and the familiar. She shakes her head and ears . . . again I think the same as some time ago, mimicking her mother, or in response to my headshakes. I approach slowly, once again with body crouched, as before and will next Summer when the dusty clay returns one more time, forever. She is skittish, as I remember her being as a nervous just out-of-the-pouch joey, but far more so than One-ear, notwithstanding her obvious differences to the mob. I hold out some wet bread to see what will happen. She leans forward, slowly and, I suppose, a little more

nervously then pushes off from that third leg, her thick tail resting on the dirt. And circles back, sideways, in slow withdrawal then, head and ears turned, inches forward, back towards me—face-to-face, ever so tentatively with those dark little eyes in the face-to-face glancing and gazing—me at her and her at me. This is Grey-face. She eats and wants more, just like One-ear. I'm silent, lost in it all—my body, hers, the memory, One-ear's presence/absence, the time-space. Each evening and day this is repeated and increases as the chronic dry heat bites, sucks, swallows, and exhales.

The unfolding of time-space and bodies of One-Ear, Grey-face and myself "of" this world of natures demand that the first narrative be shifted to the start of this "(un)timely" chapter and, back on the plastic keyboard, replace it with this to bring a temporary closure to an account of the role and justification for ecophenomenology to be included in our thinking, framings, conceptualizations, contextualizations, and representations of research that is, at the one simultaneous time but for and many spaces and scapes, an intersection of the aesthetic, ethical, and political—again not very somaesthetically well for stories, words, and texts are indicators only of that individual, collective, and relational experience of our natures' being and ecobecoming.

Notes

1. Thanks to Paul Hart for his indefatigable support of the writing of this chapter in his role as colleague and section editor; Stephen Smith and Alan Reid for helping me refine or clarify various ideas herein; and Lindsay Fitzclarence for comments on an earlier draft.
2. Casey (2003) makes the preliminary ecophenomenological case for the ethical and political importance of the "glance" in that it provides access to the feeling of the other, senses the less manifest aspects of the other, is an instant sign of what is present and presented by the other, and allows for exchange and, therefore, gives witness to that other in a way of being for the other best linked with Levinas (Calmarco, 2008). The characteristics of the glance are evidenced in the narrative about One-ear, it being written before this reading and incorporation of Casey's sketch. From a different vantage point, Keltner's (2009) science of a meaningful life points to the "goodness" of the face and gesture.
3. From the Greek, *soma*, meaning of the body. Somaesthetics will be used throughout this chapter to represent the intersection of the bodied aesthetic/feelingness and its moral bearing or *being for* as an antecedent for the taking of ethical responsibility for the other (see also Payne, 2009).
4. Eco, as a prefix used in various expressions like "ecological consciousness" signals the ecocentric qualification of terms commonly used in education, like "literacy" and "pedagogy" Pedagogy typically represents the transaction of teaching/learning in an orthodox anthropocentric manner of human to human interactions and relations (i.e., teacher and child). If used without qualification in environmental education, the term continues to anthropomorphize the relational nature of humans and their other-than-human beings. In this chapter, the constant use of eco (and soma) flags the need for greater textual alertness, at the very least, as well as interpretation by the reader so as to move us ecocentrically and "posthumanly" to, possibly, *become* more-than-what-we-currently-are.
5. See Husserl, Heidegger, Sartre, Merleau-Ponty, and Levinas as the key proponents of phenomenology in the 20C.

6. Numerous other narratives surround those included here. I could tell the story of children ("alien" to Australia) visiting our place and spending many hours playing, exploring, and canoeing around an island in the dam, from which the kangaroos drink. They found poisonous redback spiders, marveled at the bird-life, waded in muddy clay, all the time smiling. Or my ailing neighbor whose old dog I take for a walk around her property. "Wags" can't chase the kangaroos but still manages an occasional bark.
7. Acampora's (2006) phenomenological philosophy of the body, or corporeal phenomenology, is one example of how the ontological and epistemological intersections of our animality with the animality of others can give "common" rise to an animal and interspecies ethics. More broadly for the "other" of natures see, for example, Lingis (2007).
8. Complementary normatively reflexive and ideological/textual/practical critiques in environmental education research—about the "everyday," incorporating the sociocultural-global-ecological, intergenerational, education policy, curriculum, and pedagogical—are desperately needed for educationally ecocentric ends-in-view and to which the incorporation of ecophenomenological framings are crucially important, if "assemblages" (Law, 2004, see later) inclusive of "turns" in theory is a precondition.
9. Notwithstanding anthropogenic climate change, see above!
10. A "full face" photo of Leucy accompanies Decortis's (2010) article.
11. Progress on ontology, ecocentrism, and somaesthetics has been relatively slow in the general field of education, despite a history of phenomenology in education that is longer than what we think (e.g., Huebner, 1967/1987; Kneller, 1984). Pinar and Reynold's (1992) edited collection about the importance of phenomenology to curriculum as "text" is one of the more significant contributions of this genre to inquiry. Norman Denzin and Yvonna Lincoln's (2005) otherwise magisterial scoping of qualitative research in the social sciences included in its forty-four chapters only one that is dedicated to the environment. Brady's (2005) chapter champions a "poetics" view of planetary being, where the poetical provides a hermeneutic style of writing for meaning-making, less literal, and sympathetic to the phenomenological tradition and its interest in alternative forms of textual representation. Lincoln's own contribution to the case for qualitative research addresses the "challenge to and from the phenomenological paradigms," where her use of the term phenomenology is used in a manner so generalized that the myriad meanings of phenomenology are obscured. Nonetheless, Lincoln's main argument supports the contention of this chapter about the importance of phenomenology and its politics and, by implication, the necessity and importance of ecophenomenology to environmental education and its research.
12. Sauvé's (2005) mapping of fifteen currents in environmental education is a useful indicator of the relative status of different versions of environmental education. In her mapping of those currents, three are identified as being dominated by "sensorial" and "experiential" means. One other is classified as "holistic, organic, intuitive, creative" which, presumably, includes the sensorial and experiential while two others are identified as "praxic" which is probably experiential and, possibly, sensorial. Some others include "affective," and "spiritual" but are not necessarily experiential or sensorial. Sauvé's mapping is both useful and ambiguous, and further development is encouraged. Overall, it seems as if at least six of the currents emphasize the "direct" sensorial and (temporarily) "lived experience" of an environmental education whose "roots," arguably, lie in a phenomenological tradition, approach or framing. Yet, the number of published works identifying or reflecting an (eco)phenomenological framing is very small. Nine currents are identified by Sauvé as stressing "cognitive" development. A large number of published works substantively and methodologically address this presumption of rational "cognitive growth" and "knowledge" outcomes for environmental education and from environmental education research.
13. See, Ricoeur's (1992, pp. 297–356) account of an ontology of self whose phenomenological investigation intersects three problematics—reflective analysis, a determination about selfhood by way of its contrast with sameness and dialectic with otherness, where self-interpretation is an unfolding and a phenomenology of the body provides the recourse for otherness.
14. This tokenism, and reductionism of the body in education, is ironic. Embodied, experiential meaning-making is, undoubtedly, a precursor of cognitive "learning" and knowing (e.g., Gallagher, 2005). While cognitive learning is emphasized in a number of Sauvé's (2005) currents, meaning-making, meaningfulness and "meaning" sourced in the bodily relation with time-space is rarely included in the way we are (rationally) led to nonsensuously think about pedagogy, educating and researching.

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