

Chapter 6

Early Years Education in the Anthropocene: An Ecophenomenology of Children's Experience

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Abstract The intersections of early years curriculum, pedagogy, policy and their research must now confront two seemingly intractable but mutually constitutive global problems within their materially 'grounded' geocultural-historical circumstances and conditions. The 'lives' of children embedded in the socioecological contexts of families, homes, meals, schools, playgrounds and neighbourhoods are 'fast' (dromosphere) 'heating up' (Anthropocene). Without alternatives, the accelerating and intensifying consequences are deeply disturbing. This chapter addresses a *vital* need in early childhood education and research. There is a compelling 'early intervention' warrant for critical problem identification, theory building, methodological innovation and empirically qualified insights into the increasingly vulnerable body~time~space *scapes* of childhood in the now complex, accelerated, climactic and abstracted/digitalized 'everyday' of their precariously 'lived experiences'. Empirically informed theoretical development of an *environmental* education and its *ecopedagogies* capable of *slowly* sustaining an intergenerational ethic is overdue. This chapter anticipates the formatively sensitive development of an experience-rich education (and research within it) that is ecopedagogically meaningful to children's immersion in various body~time~space *scapes* in, and with, a still vibrant nature that, in so doing, critically (en)*counters* the deeply problematic dromospherical advent of the Anthropocene.

Keywords Ecophenomenology • Ecopedagogy • Childhood *scapes* • Ontology-epistemology-methodology • Body-time-space • Dromosphere • Anthropocene

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6.1 Clockwork Children

‘Children need wild, unlimited hours but this unenclosed time is in short supply for many, who are diarized...’ (Griffiths 2013, p. 109) and, quoting from Jean-Jacques Rousseau’s classic *Emile* (1762), ‘*Shall I venture to state...the most important, the most useful rule of all education? It is not to gain time, but to lose it*’ (Italics mine). Griffiths (2013, p. 110) continues, ‘A clockwork child loses a metaphysical freedom, the sense of autonomy and the inner sovereignty of the hours...’.

6.2 Time Dissonance

Alberto Melucci (1996) draws our attention to the problem of children’s time introduced above by identifying three recurrent symbolic representations of the inexpressible dimensions of time created by historical cultures. These are:

○ The *circle*, as that which was cosmologically experienced in tribal societies as the existentially ‘felt’ of the cyclical renewal of all things, unfolding primordially as a repeatable atemporal event over different (re)cycles – breathing, sleeping, suns and moons, tides and seasonal variations all of which intrinsically ‘matter’ to those deeply embodied and lived rhythms of physiological, biological, social and ecological nature.


➔ The *arrow* is the progressively unilinear durations of monological, objective, external, quantified, measurable and predictable western, industrialized, technoscientifically organized time ‘re’presented analogically by the calendar, clocks, hours and minutes of modernity’s rationally expressed, mechanistic, disciplined and strictly timetabled social formations, cultural arrangements and teleological worldview.

• The *dot* of the digitally instantaneous of disconnected blips, chaotic bytes (or bites) and amnesic memories cybered into the globally always present of now and nano postmodern times-spaces.

6.3 Raising an Unhurried Child

Carl Honore (2004) sums up a fundamental problem confronting children’s • post-modern lives when he asserts, ‘Rescuing the next generation from the cult of speed means reinventing our whole philosophy of childhood’ (p. 236).

These images, metaphors and their figurations are all ‘now’ presented simultaneously in the embodied, lived present/moment – our flowing *interior* organic times ○; our *socially* constructed and mechanically regulated family, school, work and leisure times ➔; and our globally *exteriorized* mobile ‘real times’. • Inner-social-global times and their chaotically intensified spaces, maybe splaces, are compressed

and concentrated in the everyday. Their intensifications compete for, and in, our accelerated selves. Overlaps, contradictions and fragmentation between  abound in the now hyper-individualized performative and, increasingly, technoteleological 'posthuman' condition (Braidotti 2013). The (c)rush on the instant of the turbocharged present/now sunders our nature-culture bodies and may well be an underlying source of a number of new pathologies, human, social, cultural, environmental and, even, now and in the future, anthropogenically ecological. We have a problem!

6.4 Dromosphere

Dromology is the study of speed and how the technologically driven acceleration of time now instrumentally objectified and commodified, as a competitive 'race' against anything and everything, changes the nature of 'things', including its beings, both animate and inanimate. Paul Virilio's (1977/2006, 2007/2010) studies of the science of speed investigated the manipulation and material control of 'speed' to win wars: His "dromosphere" describes the imploding world of that accelerating human 'race against time' and is embodied in the now 'naturalized' and normalized 'fast' of daily living in, not coincidentally, 'first' world nations. Time, and space, don't 'wait' the dromospherical race - as children no longer reimagine Aesop's tortoise 'winning' its patient "test of speed" with the lair of the hare. Nor do fast human bodies and their war against nature's rhythms in the omnipresent dromosphere. Bear/bare witness to the new natural and normal; the speed of the internet, the 'fast food' industry; the now 'on-line on-demands' for/of every' thing' on and in 'screen culture'; Google it; the selfie; Instagram. Speed dating; speed reading; web surfing; three minute theses; fast degrees. Fast schooling? Click on/off infotainment. Down/upload it. Fast children, faster childhood, parenting and teaching? A posthuman race, and war, against time and the spaces of nature as were once natural? Dromocracy as 'naturally' normalized? Or, self-catalyzed, destructive "accelerationism" - the implosion of global, neoliberal, techno-capitalism? (Noys 2014). Interpreting Paul Virilio (1977/2006, 2007/2010). The University of Disaster

6.5 Vibrant Matter

Jane Bennett in *Vibrant Matter* (2010) provides a vital clue to the 'slow' contribution of ecophenomenology to the 'fast' problem of children's accelerated and intensified lives when she asserted, '...it can take shape again, for a version of this idea already found expression in childhood experiences of a world populated by animate things rather than passive objects...a latent belief in the spontaneity of nature' (p. vii).

This chapter addresses a vital need in early childhood education in the Anthropocene.¹ There is a compelling need for critical problem identification, theory building, methodological innovation and empirically qualified insights about the increasingly vulnerable body~time~space scapes of childhood in the now complex, accelerated, climactic and abstracted ‘everyday’ of their precariously ‘lived experiences’. The insights and ‘outcomes’ of those critical inquiries will inform the development of an alternative ‘early intervention’ form of environmental education capable of slowly sustaining the next generations. The warrant for an empirically qualified theoretically informed and experience-rich education meaningful to children’s experiences of body~time~space (non)relations in and with a still vibrant nature mirrors the warrant for educational interventions to (en)counter the deeply problematic dromospherical advent of the Anthropocene. Jussi Parikka’s (2015) *Anthrobscene* throws the needed material light on the ‘deep time’ geophysical consequences for the environmental wasteland created by the mining of minerals and chemicals required by the abstracted media/communications technology industry and their toxic sedimentations in a new surface strata of the globe’s geology and geography. Even ‘education for sustainable development’ through its unbridled celebration of a ‘technics of experience’ masquerading as ‘learning’ endorsed through the rapid pedagogical (sic) uptake of information and communications technologies (ICT) in environmental education, globally ‘online’ curriculum perpetuates this intellectually barren wasteland (Payne 2003a).

There is, therefore, very good reason to be critical of how and in what ways the ecologically paradoxical experiences of ➔~• body~time~space relations are structured instrumentally, technically, deterministically and economically by global, technocratic, performative and consumerist forces – all ingredients of the ‘stealth revolution’ of neoliberalism (e.g. Brown 2015). On the ‘othered’ side of this fast time phenomenon, the deep time of ‘nature’, even in its romance of the past/passed, might well be at its predictable ‘death’ (Merchant 1980) or ‘end’ (McKibben 1990) due to its intersections with catalytic culture (e.g. Soper 1995; Soule and Lease 1995; Weiss and Haber 1999). But, maybe, remnant and memoried versions of nature do ‘live on’ in human and ‘non’ or ‘more-than-human’ things, like our pulse, flesh, a tortoise, a rock, the moon and its dust, memories of significant experience at the beach when a kid, or climbing a tree, or eating a fresh apple fallen from the

¹The Anthropocene denotes the geological epoch (following the 11,700 year long Holocene before the present) in which human activity is acknowledged as having a significant impact on the earth’s ecosystems. The time of the onset of the Anthropocene is debated, some claiming it commenced with the advent of the Industrial Revolution in the eighteenth century; others post World War II as many nation states industrialized their economies. Anthropogenic global warming and its contribution to climate disruption is only one amongst numerous ‘environmental’ problems confronting the collective being of things, including desertification of lands, toxification of oceans, chemicalization of air, water, soil; loss of biodiversity and increase in species extinctions and endangerments (Christoff and Eckersley 2013). Common ‘namings’ for these ‘outer’ problems of nature include ‘environmental crisis’ but, phenomenologically/existentially, ‘inner’ and ‘social’ natures must be included in the notion of ‘ecologically problematic human condition’ as it less abstractly alerts us to the embodied experience of the human sources and accelerating/fast global consequences of the modern Anthropocene and its numerous derivatives.

branch above – all of which still ‘matter’ a great deal. And what about that ‘inner’ playful nature of children and childhood where times did not ‘matter’, following Griffiths, Rousseau, Honore and Bennett, to name just a few who help us sense the problems of childhood now confronting us if children are to be ‘sustained’.

Either way, and in between somewhere/how, we need to grapple with an escalating intergenerational problem about how the relations of human and non-human natures are (re)configured by numerous accelerants in those hyperintensified, individualized and dissonant body~time~space transitions (Payne 2010a). And how early years education and research has a vital role to play. This contribution demands greater researcher reflexivity about the researched. It proposes a post-critical framing of an early interventionist ecophenomenological study of children’s experience. This post-critical vantage point provides for the inquiry into, critique of, and development of a constructive educational response to the ecologically problematic human condition outlined in the above introduction.

Today’s children will assume responsibility for what appears to be an increasingly intractable ‘socioecological’ problem about the disconnection and ‘divorce’ of those embodied relations. A ‘reconciliation’ of inner, social and exterior natures is called for. The centrality of ‘first’ \bullet nature in children’s lives must be discovered, or recovered, so that it does not become a distant ‘other’ or ‘more than’ a receding memory, nostalgic romance, etc. but, rather, a vibrant actant reanimating children’s vital ecobecoming. If so, now needed in various conceptions and constructions of early years education are keener and timely insights and generative evidences about the slower human experience of animate times and wild spaces of nature – human and non-human (Grusin 2015) as such environmental experiences of temporal and spatial processes and consequences are bodily enacted in and through toddlers~children’s movement (e.g. Johnson 2008). The insights highlighted in this chapter are key conceptual ingredients of the theory building and methodological innovation efforts now called for if we are to (re)generate a meaning-rich, formatively and normatively aware intergenerational ethic for the ‘sustainable’ global future (Payne 2010a, b).

6.6 A Digress to Method

Figure 6.1 maps the basic thematic contours of the ‘big’ problem outlined above. It orients the reader to the ‘wild’ (e.g. Abram 2010; Griffiths 2006), ‘alien’ (e.g. Bogust 2012) and even ‘uncanny’ (Trigg 2012) concepts animating this chapter.²

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²Beyond metaphor often used here, Paul James (2006) provides a detailed theoretical account of the ontologies of time, space and their embodiments in the different social formations of tribalism, traditionalism, modernism and postmodernism. Time~space representation commenced through human’s capacities to create analogical means of understanding and proceeded interpretively and then explanatorily through genealogical, mythological, cosmological, empty, relative and virtual time~space understandings, while for the embodiments of these time~space ‘layers’, James replaces the latter three with metaphorical, biotechnological and cybertechnological bodies.

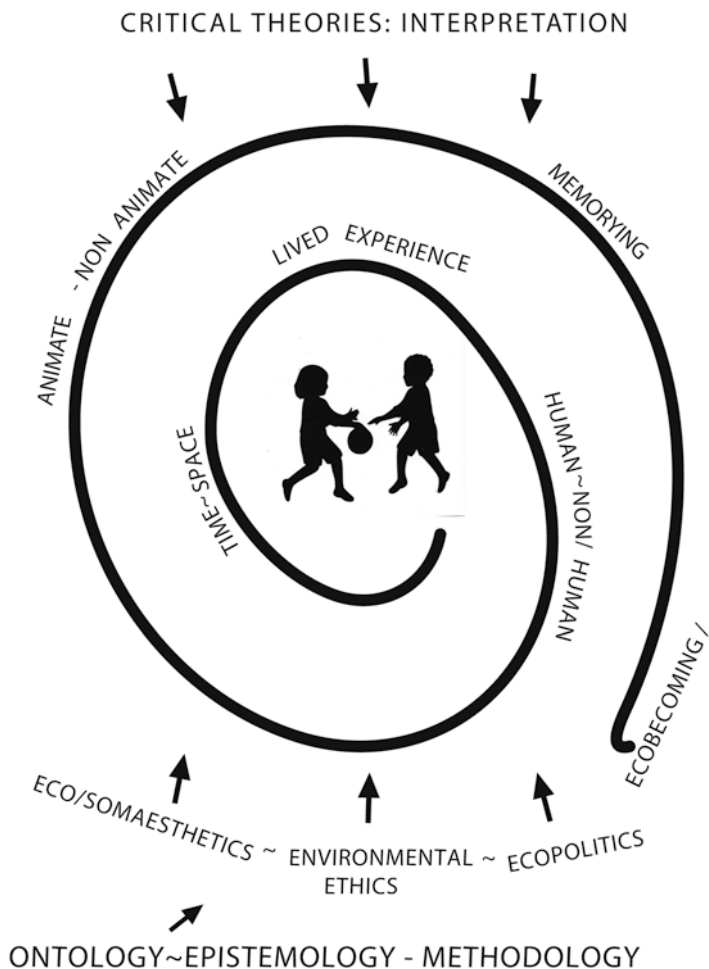


Fig. 6.1 A post-critical ecophenomenology (from ‘a critical ecological ontology for inquiry’, Payne – numerous)

Central to James theorization is that a contemporary onto-epistemic layer does not replace the preceding layer but gradually dominates it, causing it to recede, or fade. There is a cumulative effect of escalating the ‘abstraction’ of social and ecological relations but, clearly, for example, the current layer of postmodernity • is now a technologically chaotic and globally dissonant (re)shaper of the still dominant, modern → body~time~space relations. James argues the crucially relevant point that we, as hyperindividualized and atomistic selves, are constituted increasingly as ‘abstractions’ beyond the preceding layers as, consequently, so are our ‘extended’ social and ecological relations, their ‘loss’ being a key concern of this chapter. For example, a great deal has been written about the death, rape, colonizing, end, new and beyond ‘nature’ giving rise to multiple natures. Simplistic mass slogans and uncritical educational efforts and interventions to ‘(re)connect’ (children/adults) with nature must be seen in this heavily abstracted human, social and environmental condition – as ‘ecologically problematic’.

My empirically qualified interests in theorizing children's experiences from the 'grounds up' of nature hones in the environmental design of pedagogies of the 'irreal' – the 'real' that is unreal and the 'unreal' that is real (Payne 2010c).³

This thematic mapping of a post-critical ecophenomenology for inquiry and critique is derived, here, from a broad survey of how 'classical' phenomenology has recently 'turned' to a 'post' phenomenological (e.g. Ihde 1993) vantage point. It, speculatively with some needed empirical qualification for the non-anthropocentric and ecocentric purposes here, incorporates elements of a nascent 'ecophenomenology' (Brown and Toadvine 2003) whose theoretical incorporation critically extends the contemporary critical discourse of environmental education, revisionary impulses in early years education and empirical insights into children's experiences of environmental learning. With the assistance of 'new' theory sprinkled through this assemblage of themes and concepts, this chapter arrives tentatively at a critical ecophenomenology for inquiry, critique and theoretical and methodological development sufficient to address the problem posed and questions raised in the introduction. This partially historicized 'post-critical environmental education' (e.g. Hart 2005) concludes with a summary of the key methodological challenges for critical inquiry in early years education. Figure 6.2 illustrates these. That is, there is a concerted effort in this chapter to link (a) the historical trajectories of education and critical environmental education within a post-eco-phenomenological hermeneutic of 'new' theory and (b) 'emergent' methodological deliberation consistent with (partially) addressing, from an ecocentric philosophical perspective, the otherwise intractable anthropocentric problem of the dromospherical Anthropocene and *Anthrobscene*.⁴

³Those 'remarkable' and 'edgy' embodied/experiential pedagogies I have used with children (and adults) over the past decades emphasize the movement/mobile experiences of exploration, rediscovery and reimagination in/of nature's things. Its pedagogical eco/somaesthetic and, subsequently, 'story-like' narrating of experiences affectively and physically felt in the outdoors is indicative of yet another of the 'turns' animating the post-critical-'magical realism.' Gabriel Garcia-Marquez is a well-known literary exponent. Robert Ingpen, artist, illustrator and conservationist as well as recipient of the Hans Christian Andersen Medal in 1987 for lasting contributions to children's literature, inspires my work in the imaginative pedagogies of the irreal (Payne 2010c). Arguably, magical realisms are an element of what Gratton (2013) refers to as a 'post-deconstructive realism' within the speculative realisms movement but might more satisfactorily linked with the literary imaginations and ecopoetics of environmental criticism (Buell 2005) and ecocriticism (Garrard 2004) as understood in children's culture (Dobrin and Kidd 2004) and storying of their emplacements (Cutter-Mackenzie et al. 2010).

⁴Methodological issues emerging from using different theories, including some mentioned here, to interpret data are well demonstrated in, for example, Jackson and Mazzei's (2012) 'reading' of how qualitative research is conducted and what it represents. Jackson and Mazzei's deployment of various theories to 'read' and represent the same data to foreground interpretive and representational differences highlights a fundamental problem grappled with in this post-critical chapter. The data set they use is limited to interview only. I emphasize the persistent anthropocentric problem of 'correlationism' in theory building and methodological development with anti-correlationism as a way of highlighting the gap between *being* and *thought*, or *experience* and its *representations*. 'Knowledge', as typically assumed, is, therefore, problematic, partial and always contingent, but necessary in education, requiring a far more expansive expression of meaning-making and aesthetics of self-social-ecological I explore here and temporarily conclude with as an 'end-in-view' for ethical early years environmental education.

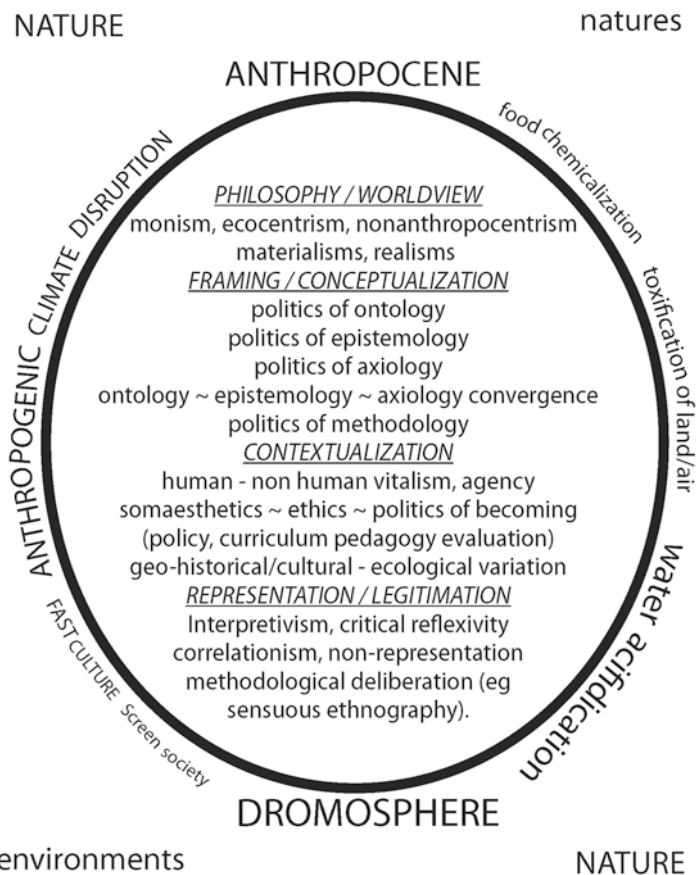


Fig. 6.2 A cultural-global-ecological design of inquiry, critique and methodological reflexivity

Figure 6.1 highlights some of the relevant key ideas of the largely unknown philosophical orientation of interpretive or hermeneutic phenomenology. Amongst more established movements of contemporary western ‘thought’ such as positivism and deconstructionism, the interpretive approach to inquiry underpins the post-critical ‘ends-in-view’ of a slower environmental and early years education (and research) described above. Phenomenology, as an ‘access’ point to the ‘lived’ of ‘experience’, has its anthropocentric limitations, like any inscribed thought pattern, and, hence, requires supplementation with various other critical ‘theorizations’ whose non-anthropocentric and ecological dimensions are required for the twin imperatives of theory building, as reflexive inquiry undertaken by the researcher/reflective practitioner, and methodological development, as inquiry deliberation about how the ‘researched’ (human and non-human over time~space relationalities) are positioned in such research.

The dromospherical rush of the Anthro/obscene really complicates for any researcher the question of what framing and naming concepts ‘matter’ most in reconceptualizing our current views of education. The dominant assumptions in education thought (in the Anglo-‘west/north with which I am most familiar) now demand intense scrutiny for interpreting how its major dominate, if not hegemonic, concepts’ act to reconstitute what this chapter finds deeply problematic at that intergenerational level of the lack of an (eco) aesthetics~ethics~politics of education. Indeed, in early years education, what are children being ‘developed’ for and upon what assumptions about their ‘growth’ and ‘experience?’ The rapidly accelerating transition from the relative stability of the Holocene to the ‘Anthro’p/obscene is telling, in more ways than one, about how we currently live experience, via contemporary western thought and its practices. The presumed ‘anthropocentrism’ (and offshoot of patriarchal andromorphisms) of human-centred ‘education’ must be ‘checked’ for what those ‘isms’ convey to young ‘learners’ in their subjectifications, be they in families or in schooling, particularly through the ‘medium’ and shallow prism of the accelerated quest for children’s technoliteracies. And, if need be upon deeper scrutiny, qualified severely for what those constructs do to ‘development’, such as the child’s brain and its chemistry as a consequence of ‘screen culture’ for ‘learning’ (Greenfield 2011). In turn, what then are the consequences (theoretically and practically) for ‘education’ and efforts to develop personal, social, global and ecological ‘sustainability’ when the term sustainability is regarded critically as little more than an increasingly hollow slogan in education, including its consequential pedagogical deployment in shallow ‘places’ (e.g. Payne 2003b, 2006, 2014, 2015).

From a post-critical perspective, ‘sustainable development’, children’s ‘growth’, ‘maximizing potential’, enabling or ‘empowering’ ‘agency’ and ‘relations’ or ‘connections’, ‘screen culture’ and so on suddenly take on an ‘identity’ quite different to that so often innocently presumed in education. What do those uncritically presumed educational concepts ‘do’ pedagogically (as distinct from ‘ecologically’) for children and in those fragile and vulnerable formative senses of self, brain, body and learning and the social, the environmental and their interrelated and emergent agencies?

Alternatively, wild ideas like non-anthropocentrism and ecocentrism are troubling ‘worldview’ concepts that serve to destabilize, at least, the hegemonic assumptions and framing conceptions made by researchers and reflective practitioners about the researched. Ecophenomenological inquiry of the type described here ‘grounds’ the transcendental loftiness of ‘worldview’ abstraction in the immanent actualities of the materially real and creative agencies of its things in the everyday. This post-critical destabilization of conventional wisdoms, practices, assumed inheritances and legacies undertaken in this chapter undoubtedly requires further conceptual/theoretical and methodological ‘working up’ in numerous ‘applied’ contexts such as early years education policy, or pedagogical development in schooling, or parenting in different socioeconomic or cultural-geographic circumstances and, closer to home for this readership, even, in play theory and the ‘environmental design’ of playgrounds, amongst its many things!

For those interested in the theoretical and methodological commensurabilities of a revitalized, animated early years education and its research, the critical ecophenomenological access point developed here will explain why and, partially justify, how it 'fits' a slow response in early years education to the heavy ecological footprints of the dromospherical Anthrop/obscene. The incorporation of a series of rewilding concepts into revitalized theory building and research development, with emergent methodological deliberation, underpin a particular dispositional approach to the framing of alternative orientations within the post-critical inquiry fashioned here. Simply, the big 'sting in the tail' here is phenomenology's historical 'rejection' of the scientism of empiricism achieved through the meteoric rise in modernity of the now dominant positivist-experimentalist movement of western thought. It is ingrained in much 'said' about children and 'practiced' for them, on their behalf. The sting is potentially a nasty one at the subjugated sense of self (e.g. Butler 2015) of the researcher/pedagogue where we often 'misrecognize ourselves', and our educational purposes, in how we 'post-intellectually' go about framing research and positioning the researched (Cooper 2002). Indeed, we do not need to look too far in, for example, education and development to see how much the fast, faster of automatically 'accelerated' but always made invisible body~time~space relations are not only fostered but celebrated and privileged in the various 'enclosures' of curriculum, schooling, testing, parenting and family functioning.

Researcher reflexivity? My framing and, following a Deweyan-inspired pragmatically reconstructive 'end-in-view' of mapping, contouring and navigating the subterrain and terrain of a critical ecological phenomenology is acutely aware of one of the main critiques of phenomenology's alleged 'naivete' and anthropocentric 'limits'. To be sure, that limit lies in interpreting and describing lived experience only in the moment in the absence of taking into account numerous other structural factors, historical forces and ecological misunderstandings or misgivings influencing and shaping our individual subjectivities, identities and, phenomenologically speaking, individual and collective senses of being and becoming. Post-critical ecophenomenology is one response to this limitation, while other theory turns mentioned all-too-briefly here are more than alert to the flaws of traditional phenomenologies.

The term 'critical' is crucial notwithstanding its variations of meanings (and practices). Rather than being viewed as a retreat from modern critical theory (e.g. Held 1980; Dallmayr 1991) as some have concluded, post-critical here extends and advances the political warrant 'of' and 'for' an environmental education, and the reflexivity required for the ecocentrism it demands, within making a clear research of the politics of ontology, epistemology and methodology (Fig. 6.2). Irrespective, the excavating of the 'openness' of such subterranean naivete (or alleged 'innocence' of childlike experiences) is not necessarily a major problem when aspects of the most contemporary stratospheric 'high' theory touched on throughout this chapter 'mirror' the animated, vital, imaginative, creative and speculative manner in which children 'be' before and sometimes 'playfully' during the 'hold' of other structural factors and 'grip' of historical forces. Those thwarts to metaphysical 'becoming' are neatly captured in Griffiths' reference to how 'enclosures' found in children's ter-

rain consume the spontaneity of animation Bennett seeks to recover. Nonetheless, the post-phenomenological incorporation of the 'critical' and the 'ecological' asks the researcher to bring to presence the grounded richness of children's deep and meaningful experience as well as their (dis)affections imposed by structural/historical and cultural problems such as 'class', ethnicity, physicality, ability, language, religion, species, land/water/air and mobility/fluidity/liquidity issues. Alleged child-like innocence/naivete and sociohistorical risk/vulnerability go enigmatically and precariously hand in hand. They require teasing out if early years education is to be reanimated and vibrant.

Fortunately, for those more conventional critical purposes, various intellectual and theoretical resources are available in environmental, cultural, feminist, animal, postcolonial and other theorizations of the 'postmodern condition', as a characterization of advanced techno-industrial, globalizing 'societies'. The trick here, however, is not to simply download such theory but, from the ecophenomenological grounds of young children's bodied experiences and lives in nature, and inquiry into it, inductively and adductively reinterpret the relevance of such critical theory. An example is Virilio's 'dromology'.

6.7 The (Sub)terrain

The 'ecocritical' version of environmental education has waxed and waned over the past 30 years – predictably so. Discursively, some only in environmental education and its research have remained 'true' to the field's formative identity established in the early 1980s where its primary purposes were not only to educate in/with, about and for the environment but serve as an overdue educational critique of any 'education' that reproduced or reconstituted various socioecological problems, issues and their various injustices (e.g. Huckle 2014; Robottom 1987, 2014; Payne 2015). Critical curriculum theory in environmental education, however, has fallen on 'hard times' (Payne 2006), like most reconstructive efforts in (environmental) education that are critical of the neoliberalization of education (e.g. Hursh et al. 2015) and its policies (e.g. Payne 2016), including funding, schooling as well as in its corporatization of 'post-intellectual' university research, publishing, teaching and 'cognitive capitalism' efforts (e.g. Cooper et al. 2002).

Unlike recent efforts in education to re-enthuse the more general, less critical, field of environmental education, such as Louv's (2005) 'children's nature deficit disorder', the alternative (eco)phenomenology of children's experience of time~space outlined in this chapter eclectically injects a substantial dose of critical theorizing about the dromospherically manuf(r)actured experiences of the postmodern time~space 'poverty' condition of children's lives in their 'un-places' (Trigg 2012) or 'non-places' (Auge 1995). These (dis)places of children's lives are devoid of \bigcirc nature but replete with its derivative $\rightarrow\bullet$ natures. The existential and partially ontological warrant for a 'counter' ecophenomenology of children's 'authentically' (sic) lived experiences in and of the 'lifeworld' (including remnant/memored 'first

nature') calls ethically for a renewed ecopolitical vibrancy of things that affectively and aesthetically as well as ethically and politically enliven the 'matter' of children's lives according to how those researched 'subjects' are framed as curriculum, pedagogical and research problems and, more precisely, questions.

Troubling questions about the problematic status and 'quality' of children's time experiences in various spaces have not been posed, as the following review reveals. More assertively than what so far has been introduced, those sharper research sub-questions about the 'subjects' of inquiry/critique need to probe the socio-environmental 'design' of the meaningfulness (or not) of the experiences of children (and adults or the elderly) as they are 'felt' and practiced enigmatically, paradoxically and (non)ecologically in the 'everyday' (Ginsborg 2005) of various contexts, including the home (Blunt and Dowling 2006) or postmodern oikos (Payne 2009), the neighbourhood, the playground, the school, the classroom, outside and inside and here and there. To reiterate, at stake, in not posing research questions of a non-anthropocentric type is, probably, the loss of metaphysical freedom and inner sovereignty that Griffiths (perhaps Pestalozzi, Froebel, Steiner, etc.) alert us to. At risk, is ignoring children's 'agency' as beings or actancy as an ecobecoming within the unavailability of nature's things; things that Bennett seeks to rematerialize politically as a gesture to the 'reinventing afresh' a philosophy of childhood which Honore (2004) insists upon in resisting the dromospherical cult, race and war of speed.

For the specific questions probed here and tactically recycled throughout this chapter, deafening silences and alliances in educational discourse persist about children's largely invisible or hidden vulnerabilities to the often abstract, paradoxical and contradictory experiences of 'micro/bodied' ○ time~space – as that layer of primordial experience is recalibrated within the 'meso/social' → time~spaces of the structured, routinized and timetabled every day that schooling supports – as each of those two body~time~space layers are then confusingly accelerated, intensified, compressed and individualized by the technologies of 'macro/global' • time~space and its technics of experience in education (Payne 2003a, b). The 'scientism of children' discourse can't grasp (or comprehend) this crucial subterrain of needed inquiry and critique, as this subterrain is often 'affectively' pre-rational/discursive in its bodily felt somaesthetic sensitivity and 'eco/somaesthetic' complexity (Payne 2013). In this enigmatically layered manner of what it now paradoxically is in the postmodern to be a → child, 'uneducated' or 'unlived' about ○ 'nature' and inexperienced in its slow times~spaces, the quest for a reconciliation of its 'inner', 'social' and 'outer' versions might be partially reclaimed in a richer meaning-making manner for early intervention environmental education and its research.

Terrain? This 'ecological' stage of 'development' envisioned here has, indeed, been promoted for some time. Critical progress on disclosing the duplicity of the increasingly fast cultures of children's lives is, ironically, far too slow! Brofenbrenner's (1979) formulation of a (social) 'ecology' only touches anthropocentrically and reductively upon aspects of the subterranean ends-in-view pursued non-anthropocentrically and ecocentrically in this chapter. Brofenbrenner's theoretical framing of 'development' (like Piaget and Vygotsky) has, indeed, undergone major 'recontextualization' efforts over the past 30 years. Like my critical and eco-

logical supplementation of phenomenology's naivete, these admirable efforts in mainstream theory of children (and education) incorporate broader social and cultural contexts and issues (e.g. Gershoff et al. 2014; Saracho 2014). But, they still exclude the environmentally 'ecological' issues relevant to the subterranean sources and global consequences of the Anthrop/obscene and dromosphere, and numerous other examples of the ecologically problematic human condition such as anthropogenic climate destabilization, toxification of lands, acidification of water, as these 'resource problems' and accompanying socio-cultural issues are experienced differently in various circumstances in different historical-geocultural-ecopolitical contexts as 'locations of knowledge' (e.g. Canaparo 2009).

Contouring the moving terrain? Despite its stealth absorption into the neoliberalization of education, the critical legacies of environmental education and its research provide, potentially, a timely response to these gaps in early years education about those existential dilemmas, risks and disjunctures now normalized and 'naturalized' in young children's lives. This curriculum field of education, like phenomenological philosophy, is relatively unknown in early years education. Promising developments are still available and are considered later. Environmental education and its research have a four-decade-long history (Stevenson et al. 2013) that, unfortunately, remains on the margins of mainstream education discourses, possibly because it serves as an untimely critique of much of it, as indicated earlier! This marginalization of environmental education reoccurs despite numerous studies of a 'socially critical' type in the 1980s and 1990s of younger children's active engagements in problem-solving of local environmental problems and social issues through interdisciplinary participatory action research type programs in primary/elementary and secondary schools. This highly active curriculum and pedagogical development in schooling was often facilitated externally by teacher education academics, or as a consequence of professional development and research development (e.g. Robottom 1987; Fien 1993; Robottom and Hart 1993; Reid et al. 2008; Payne 2015).

Children's 'relations' or 'connectedness' with nature and their agencies are receiving attention in innovative practices of environmental education and education for sustainability. For example, 'outdoor' schools without walls for very young children are being piloted in Canada (Blenkinsop and Piersol 2013); 'forest' kindergartens and schools are found in different European countries and 'bush' schools for toddlers now exist in Australia. All, it seems, provide rich outdoor experiences for children in, and of, or about nature but, perhaps, not ecocentrically with and for it. These environmental schools remain underresearched and, probably, undertheorized in that 'newer' critical dromospheric context of the Anthrop/obscene. Irrespective, claims, often anecdotal or rhetorical, are frequently made in these alternative outdoor and experiential/immersive educations about the children's learning 'outcomes' of greater engagement, wonder, creativity, thinking, interactions, wellbeing and understanding of academic knowledge. If validated by research (of the type recommended here, amongst other interpretive and qualitative possibilities), there are likely to be far-reaching implications for any 'new' ethic of caring, parenting, pedagogy, schooling and socializing. If so, greater attention might also be paid post-critically to how the environmental designs and ecopedagogies of play-

grounds, gardens, parks and related urban, city and rural amenities in which our children socioecologically might become over such time(s)~space(s).

More precisely for the body~time~space relationality questions highlighted here, the signs are promising as new theory emerges, as alluded to throughout this chapter. Anecdotally, empirically and theoretically, the promise of repairing culture-nature relations lies in the ecopedagogical creation of ‘slow(er)’ bodied time in various nature spaces and outdoor places, as that notion of a body~time~space relationality might ‘replicate’ the **○** ontological subterrain of epistemological conditions adequate to an alternative early environmental education for socioecological sustainability. In moving the subterrain of inquiry, the temporal scales of our memorying and becoming (Grosz 1999) of wild, alien, uncanny and unreal experiences of the vital environments of vibrant nature are worth speculating about for further inquiry into both the enablements and constraints of those body~space relations of children’s dromospherical timescapes within the Anthrop/obscure. Numerous disjunctures exist in and between these assorted layers of temporal and spatial movement. This chapter, therefore, assertively problematizes for researcher reflexivity the researched subterrain of that temporal spatiality, or geographies of children’s time.

6.8 Moving the Terrain and Its Contours

The dominant positivist-inspired psychological focus on developmental and operational perspectives of children’s temporal (and spatial) cognition (e.g. McCormack 2014) barely acknowledges these ontologically ‘bodied’ existential concerns. The ecophenomenological, reconceptualist orientation to ‘experience’ is gaining traction in the discourse of environmental education research (Sauve 2005; Lotz-Sisitka et al. 2013; Payne 2013). Environmental philosophy (Thomson 2006) is now viewed as one of the key contemporary issues in phenomenology and existentialism (Dreyfus and Wrathall 2006). The ‘lifeworld and lived experience’ (Jay 2006) and ‘temporality’ (Brough and Blattner 2006) are identified as two of the central concepts of the main movements in phenomenology while ‘affectivity’ (Han-Pile 2006) and the ‘body’ (Hoffman 2006), as well as claims on authenticity, are included in the main movements of existentialism. Typically, however, phenomenology and existentialism are anthropocentric. Post-phenomenology (Ihde 1993) partially rectifies this limit and informs the ‘post-critical’ orientation pursued here that incorporates ‘moves’ and ‘turns’ if, indeed, the non-anthropocentric, inclusively non-human and ecocentric ‘worldviews’ are to be clarified within the discourses of education and early years education. Conceptual clarification of complex, ground-breaking ideas is only partially adequate if the ‘praxis’ commitments and interests of materialist approaches to critical theory are to be sustained.

The needed empirical basis underpinning and critically qualifying this ecophenomenological inquiry draws selectively, given the limitations of this chapter, on a series of small-scale research projects undertaken over the past three decades about the nexus of critical environmental education theory development, slow ecopeda-

gogy practices and ecocentric reinterpretations of emerging genres of interpretive inquiry and critique in educational research. These projects are part of a much larger research program titled a critical ecological ontology for educational inquiry, or 'named' simply as an education for being for the environment (e.g. Payne 1999a, 2005a, 2006). In addition, those studies of oftentimes 'insignificant' (Payne 1999b) childhood experiences in and of nature should also be viewed within the 'significant life experience' research literature so well established in environmental education, following Tanner's (1980) 'classic' study (see below), extending most recently to studies of the student experience of environmental learning (Rickinson et al. 2009). Aspects of the phenomenological approach and ecophenomenological orientation prioritized in this chapter can be found in closely related children's research (Hart 1979; Sobel 1993; Kahn and Kellert 2002; Chawla 2001; Barratt-Hacking and Barratt 2007).

This, therefore, politically 'untimely' (Grosz 2004; Payne 2013) interventionist chapter about a critical ecophenomenology of children's experience of nature's relations proceeds with an overview of phenomenology, as it has only sparingly informed the (western) → modern and • postmodern discourses of education and its research over the past 50 years. Children's lived experiences of time-space have rarely been investigated, most of all from the critical perspective of dromology in the Anthrop/obscene. Those risk-intensive 'major events' are further elaborated in a post-critical (Hart 2005, 2013) manner by incorporating ideas found in recent major turns in theory in the post-humanities, social sciences and arts. One key is 'post'-phenomenology (Ihde 1993) because it deals emphatically with (human) experience from the grounds up. These theoretical turns coalesce around a 'non'-anthropocentric and 'constrained constructivist' (and non-subjectivist) interest in ontologies of objects within a renewed materialist concern about the status of agency (Coole and Frost 2010). Pertinent matters for critically reflexive inquiry, theory building and research development are raised in the final part of this chapter.

6.9 Contour Tracking and Navigation: Phenomenology and Education

Gaston Bachelard's *The Poetics of Space* (Bachelard 1958/1964) captured well the historical mood of twentieth century phenomenology in providing an alternative approach to and understanding of the human and non-human condition. His proposal to interpret how we (aesthetically) experience intimate places and poetically represent them implores us to 'forget' our 'learning' of the growing rationalism and authority of science while also breaking from the habits of conventional philosophical research. Central to Bachelard's thesis is the lyrical need for a reimagination of social spaces and nature's things. Bachelard's 'travel to the land of motionless childhood' exemplifies his immediate relevance here (see also Bukatman 2012). His emphasis on the intimacy of the house and its daydreaming as a 'frozen' memory

over time~space calls for extension into those more natural environments upon which houses and their oikos are also dwelled in or inhabited socioecologically in the postmodern (Payne 2009). Phenomenologists of perception like Maurice Merleau-Ponty (1945/2002, 1968, 2003) consistently broach the ‘other’ and ‘facticity’ of things ‘already there’ in themselves, often ‘invisible’ in nature, that are ‘lived’ perceptually in the ‘world’. ‘Things’ and their intrinsic actancy and ecological creativity now occupy centre stage of the most contemporary high theory indirectly informing this chapter and, more particularly, how the important notion of (children’s) agency and intra-agencies might be reworked in very different ways. Perception and reception occur. And, as already indicated and will become patently clear in regard to the theory building and research development purposes of this chapter, it was Martin Heidegger (1927/1962, p. 60) who declared ‘Phenomenology is our way of access to what is to be the theme of ontology, and it is our way of giving it demonstrative precision. Only as phenomenology, is ontology possible’.

Hinted at only above, numerous criticisms of classical phenomenology persist, in particular its alleged anthropocentrism (human consciousness, perception) and allegedly ‘naïve’ claims on ‘authenticity’ and ‘subjectivity’ (e.g. Adorno 1964/1973; Sparrow 2014). Rapprochements have been sought in critical theory leading into ‘critical ontology’ (Fay 1987; Dallmayr 1991) and ‘post-phenomenology’ (Ihde 1993). Ihde’s *Postphenomenology* is pragmatically attentive to the contemporary issues of ‘technology and the lifeworld’ (Ihde 1990) and has a strong underlying concern about the ‘environment’ and how the instrumental realism of technoscience creates new hermeneutic demands on the technics of experience and its embodied praxis. The (dis)connect with self/nature is evident in Ihde’s post-phenomenological ‘revealing’. The new wave of speculative realists have deepened the critique of the lingering anthropocentrism of phenomenology through their deconstruction of the assumed ‘correlationism’ of (human) being and thought, notwithstanding the broader post-phenomenological interest in things in (them)selves (e.g. Shaviro 2014).

In education, the development of critical curriculum theory via a ‘critical ecological ontology’ for inquiry (Payne 1995, 1997, 1999a, 2006) is consistent with this trend, including acknowledgement of the ‘lifeworld textualism’ correlationism problem (Payne 2005c), as is the rise of post-critical inquiry and research (Hart 2005, 2013). Ecophenomenology, as characterized here, therefore, is a ‘manner’ or ‘style’ of thinking reflexively that, more recently, post-critically searches for an ecocentric approach to interpretation, representation and methodological deliberation and development. The quest for non-anthropocentrism and ecocentrism, therefore, draws selectively and unevenly across critical, poststructural and phenomenological perspectives as they are being reshaped by the current wave of theoretical turns. A critical ecophenomenology in education pragmatically incorporates the interests of critical environmental education in enabling socioecological and environmental justices.

In historicizing this chapter to give phenomenology its due in education, the pragmatic linking of philosophical phenomenology, existentialism, hermeneutics and educational theory and curriculum/pedagogical practice has been sporadic over

the past five decades. The focus on children is limited. Before 'post'-phenomenology, Denton's (1974) collected essays is one concentrated foray. Kneller (1984) included phenomenology as one of eight 'movements of thought' in modern education. Husserl, Heidegger, Sartre, Buber, Freire and Merleau-Ponty are identified as classic figures. The latter is viewed as most relevant here in that Merleau-Ponty's philosophizing did account for children's 'lived bodies', their immersive prereflective perceptions and movements in different environments through which objects are manipulated and generalizations are conceptually made through discovery that, in turn over time, 'sediment' thinking, acting and perceiving a relative 'lifeworld'. Temporally, the adult's world is seen as an 'elaboration' of the world of the child. Yet, interestingly, conventional understandings dictate that adulthood is reified against childhood where, according to Kennedy (2006b), childhood appears as and in the 'shadow of the enlightened man'.

Hermeneutics is another of Kneller's (1984) movements of thought. Dilthey, Gadamer, Heidegger, Ricoeur and Kuhn are discussed. Hermeneutics is promoted as a method with variations. Interpreting children and their lives is not included, only assumed in Kneller's otherwise important mapping of the philosophical terrain of education. Importantly, Denton's (1974) essays include a chapter by Leroy Troutner. Troutner's (1974) interpretive phenomenology focused presciently on the question of time and education and, in particular, probed two interrelated questions of relevance here. The first deals with the how of a child's living of time (see also Burton 2011) and is posed normatively in terms of the 'primordially' and 'authenticity' of the child's becoming, following Heidegger's extensive investigations of Dasein, the question of being. Troutner's second question examined how the child learns time and what kind of time is learned as a particular expression of the relative cultures from which the past, present and future of time are conceptualized, manufactured and lived in society. For example, I recall being instructed in my early years education of how to 'tell the time' on analogic clock/'watch' faces of ➔. No(thing) else sticks in my memory. I wonder how • digital time is now taught and learned (by parents, teachers) and what meanings of or about are ascribed by young children to the ever-pulsating blips of the moment. Following Troutner's concerns about the pedagogies of time, these constructed modes of fast temporality are cast normatively as 'inauthentic', leading, allegedly, to the increased atomization and fragmentation of life, resulting in the loss of significance and meaning. For Troutner, these troubling insights are a significant consequence of the existential phenomenological analysis of time.

Pinar and Reynolds' (1992) phenomenology is another edited contribution to education theory and includes a genealogical history of phenomenology and post-structuralism in curriculum studies. The North American contributions of Dwayne Huebner, Maxine Greene, Madeleine Grumet and other 'second-generation' scholars like David Jardine, an early visionary, persistent advocate and outstanding exponent of (eco)phenomenological hermeneutics in (environmental) education and ecopedagogy (e.g. Jardine 2000), are outlined. Children go missing, or inferred only, in Pinar and Reynolds' 12 chapters.

6.10 Grounded Contours: Ecophenomenology and Education

In some respects, the prefix ‘eco’ is unwarranted because the ontologies presupposed by many phenomenologists (try to) endorse a deeply grounded form of philosophical ‘monism’, contra dualisms privileged epistemologically and axiologically in much western anthropocentric/humanist thought. This attempted non-dualism opposes the ‘dualism’ often attributed to the Cartesian-inspired thinking about the authority and sovereignty of scientism and empiricism. Monism and dualism invoke starkly different conceptions of just about everything – be it matter, the self and subjectivity~objectivity, others, things in themselves, nature and the world. Epistemological implications also vary widely where, for example, despite the persistent anthropocentric bias in much phenomenology, the Cartesian mind and body are ‘separated’, as is reason and emotion and physicality, theory and practice and I and lifeworld. Consequentially, their pedagogical spatialities separate the materialities of indoor and outdoor ‘learning’. Increasingly, the *Anthrobscene* is unwittingly endorsed and uncritically valorized. Another offshoot of epistemological dualism within axiology is ‘values-hierarchical’ thinking. Put simply, one of the ‘enclosures’ identified by Griffiths as most valued in modernity is ‘learning from the neck up’ and constrained to the ‘indoor’ only of a very limited practice of body~time~space relationality.

Ontological monism may well be a generalized form of holism or indicator of non-anthropocentrism, even ecocentrism. Its ‘flat’ rather than hierarchical conception of things, including humans, is of post-critical educational interest. Most children ‘connect’ with animals; they like to play with things; they like to explore, discover and ‘pretend’. The beingness of many things enlivened in children’s experience is, potentially, a form of ecobecoming over the time~space of various environments. The slow flow of time in children’s irreal and ‘nomadic’-like playful experiences warrants attention in our theory development efforts about what, in the various environmental designs for an ecology of things, constitutes for children ‘meaning’ and its ‘making’ without pedagogical/epistemological intervention. If so, methodological deliberation about how that monistic ‘affect’ can be interpreted, described or represented as the ‘experience’ of an ecobecoming. Anthropocentric dualistic logics have privileged epistemology over against ontology with priority in education typically given to the former of that binary of learning, teaching, assessing and other dimensions of schooling, parenting and pedagogy. Shaviro (2014, p. 3), amongst speculating others about ‘thought’ and experience, concludes, ‘... epistemology must be deprivileged’. In education, Huebner’s (1967/1987) highlighting of the materialism of the environmental design of curriculum expresses similar concern about the pedagogical preoccupation in the philosophy and practices of education with formal ‘learning’ and its ‘outcomes’ (see also Payne 2014, 2015 for empirical ‘case’ studies of environmentally designed transpositions undertaken in outdoor experience).

The implications for conceptions and practices of early years education of ontological monism, characterized here (via the access point of ecophenomenology) as body~time~space relationalities with things in themselves are, bluntly, massive and might well please Honore's plea for a new philosophy of children. A case can be made for an 'authentic' demand for non-anthropocentric epistemologies in education theory/practice and research methodologies and deliberation 'different' to the presupposed conceptual/theoretical binaries, presumed values-hierarchical thinking and overprivileging of pedagogical perspectives about child development, cognitive development and so on. Incorporating, or memorying, the authentic 'otherness' of children's affectively meaningful lives must confront the Cartesian-inspired disembodiment, disembedding, displacement and decontextualization of the subject from the human-non-human and animate-inanimate vital world privileged by the ecocentric reconceptualization and repositionings of its various subject/objects/things.

The above microexamples of children's vital connections with animals and vibrant experimentation in discovering things aim to bring to the 'surface' the subterranean ontology~epistemology 'tension' and, more often than not, dualist anthropocentric-non-anthropocentric and human-non-human figurations of it. Any new contours of early years education thought will need to navigate meso- and macro-level tensions, for example, the social and environmental design and development of schools, curriculum and pedagogy, the experience of being/coming 'educated', the rewilding of the underlying normatively driven epistemologically privileged categories of cognitive~affective~sensorimotor growth and, even, 'worldview' assumptions of culture-nature as they are remade in an early intervention environmental education in the dromospherical Anthrop/obscene. These micro-, meso-, macro- and global ontological~epistemological tensions are far too numerous to list here, the above sampling being indicative. Even assumed notions of language and literacy (and 'ecoliteracy' as now popularized) can be challenged for what they express and represent, and anthropocentrically and 'politically/discursively' legitimize. As noted, language used about the rich depths of (children's) experience of, for example, 'imagination' cannot correspond or correlate well to that complex, dynamic and ever temporally spatially moving subjective 'reality' that initiates imagination and creativity in the very first (ontological) instance. At best, language is an approximation only of experience, and much experience is not accessible even to the experienter and experience of things. If 'non-representation' and the critique of 'correlationism' are even partially considered, the meanings researchers 'give' to children's 'talk' and 'voice' warrant caution from an ecophenomenological and post-critical perspective given their present conceptual and methodological challenges to inquiry and critique.

We don't necessarily need to start anew in navigating 'new' contours of child-scapes. Numerous intellectual resources are available and briefly outlined below. The most definitive accounts of ecophenomenology anticipate the transdisciplinary intersections of phenomenology, environmental philosophy including ethics and the philosophy of nature including its aesthetics (Brown and Toadvine 2003). For the reflexively normative purposes of this partially historicized account of high and grounded contours, the scholarly field of environmental ethics was formalized in

1979 with the publication of a journal bearing that name. And much of that environmentally ethical discourses clearly anticipated the anthropocentrism are now so heavily critiqued in the latest high theorizations of speculative realisms and new materialisms and qualified in post-phenomenologies. This ground-breaking subterranean of theory occurred at about the same time the field of environmental education was formalized following a series of international conferences organized by the United Nations during the 1970s (e.g. Palmer 1998). The formalization of environmental education, following earlier 'nature studies', 'conservation education' and elements of 'outdoor education' in the first half of the twentieth century, prioritized interdisciplinarity and experiential learning and education, well beyond the 'science education' of the time that was only just beginning to address environmental problems and issues. Environmental education and ecophenomenology neatly link in the ways I'm 'ethically' suggesting.

Ted Toadvine (2009) posed three questions central to the idea of ecophenomenology that, taken together, deftly summarize the challenge this chapter presents to formulating the 'early intervention' experiential environmental education and its research development terrain, contours and childscapes navigated here. Toadvine's 'meta'phenomenology draws inspiration from Merleau-Ponty and asks us (as educators and researchers) to describe and understand: What is the nature of experience? What is the experience of nature? And, therefore, what is the 'pedagogical' relation between experience and nature? Toadvine's ecophenomenology insists on bringing to life the 'ontological, epistemological, aesthetic and theological' dimensions of experience (p. 6). But his pursuit of an environmental ethics is ontological rather than the dominant epistemological of the field of environmental ethics, the latter of which, however, is central to 'education' and the ontological~epistemological, pedagogical and methodological 'tensions' referred to so often throughout this chapter. As such, Toadvine's demands for a comprehensive understanding of the philosophy of nature provide a valuable and, potentially, useful set of interrelated criteria for framing curriculum inquiry and its design on/for environments (Huebner 1967/1987). Toadvine's questions might well guide the planning of research (and professional development) that revisits the centrality of deliberation about ontology and epistemology in methodological framing and development (Robottom and Hart 1993). Toadvine's triad of questions are also useful for developing adequate curriculum and appropriate ecopedagogy as they apply in different educative circumstances in schooling and their educational contexts within certain cultural~ecological formations and socio-political arrangements.

Furthermore, in not starting afresh in accessing and navigating relevant intellectual resources, the (eco/post)phenomenological influence on various other disciplinary approaches to inquiry cannot be underestimated in terms of their interdisciplinary potential to reshape educational practice, theory and research. 'Environmental perception and values' and the 'perspective of experience' occupied the human geographer Yi-Fu Tuan's account of *Topophilia* (Tuan 1974) and *Space and Place* (Tuan 1977). 'Eastern' and indigenous ontologies and epistemologies occupy much of Tuan's theorizing. Tuan's human geography, like the different critical geographies of Soja (1989), Harvey (1996) and Massey (Massey 2005), ecological anthropologies

of Tim Ingold (2000, 2011) and Philip Descola (2013) as well as Marc Auge's (1995) 'non-place', the ecological psychology of James Gibson's environmental 'affordances' (Gibson 1979), Andy Fisher's radicalization of ecopsychology (Fisher 2002), Jeffrey Maitland's (1995) therapeutic somatic ontology of the spacious body, Robert Levine's (1997) geo-psychology of time and Nigel Thrift's (2008) sociological non-representational 'spatialities of feeling' provide different 'disciplinary' vantage points that in different somatic and material ways illustrate the ontological and post-phenomenological centrality of movement, perception, affect/emotion and experience and historicity, temporality, spatiality and cultures of nature's environmental differences.

Like Troutner's phenomenology of children's time in education, Tuan's (1974, 1977) inclusion of children's lives and experiences in his phenomenological theory of place is important for the purposes here. Tuan pursued the question of how a young child experientially perceives and understands his or her environment. Movement of the body in places within the timing of such experiential space is 'core'. The child's 'biological imperatives' of growth impose increasing demands on 'learning' over time and space, as well as place, while responding to the inevitability of cultural influences whose 'specific emphases', according to Tuan, are ultimately 'transcended' by those imperatives. Tuan's 'experiential perspective' offers a synthesis of active sensation, perception, emotion, conception and thought. More recently, Dylan Trigg's phenomenologies of the 'uncanny' (Trigg 2012) and 'horror' (Trigg 2014) are heavily shaped by the temporal-spatial qualities and thingly characteristics of 'memory' where, clearly, memories of childhood places and things in them are crucial to how 'meaning' is generated, created, stored and memoried in and through the processes of experience. Somewhat akin to Toadvine's ontological-epistemological questions about the experience of nature, nature of experience and their pedagogically non-dualist/binary mutual constitutions, Trigg pursues the parallel ontological-epistemological questions of the place and things of memory, memory of place (and its things) and their mutual constitutions. Any 'pedagogy of place' in education will need to navigate these contours and questions but, also, critically climb the postmodern mountain of non-place, un-place and splaces ushered into and downloaded into the mobile/liquid/fluid lifeworld that dromology recommends (Nakagawa and Payne 2014).

In the above vein, phenomenologies of children's experience that foreground the ontological-epistemological tensions of body~time~space and nature considerations are scarce (e.g. Chawla 2002), more so in education discourse (Kennedy 2006b), most of all those that provide some evidential insight into schooling. Eva Simms (2008) is a rare exception (see also Rossholt 2012), noting various phenomenologists of children's lives only ever 'indirectly' address the question of dromospherical time highlighted critically here. They tend to emphasize places and spaces like gardens, kitchens, cellars, attics and their 'secrets', as well as the times of the bodied experience of them and things found there (e.g. van den Berg 1961; Langeveld 1967/1983a, b). Critical phenomenologies of the now dominant screen, for example, of fast culture await so as to put into comparative perspective the case for ecophenomenological inquiry (Payne 2003a).

Louise Chawla's (2002) 'spots of time' is particularly helpful in navigating the conceptual base for how theoretically inspired research development and empirical qualification might proceed. Chawla reviews how certain Romantic ideas that first defined the modern notion of childhood and nature, particularly the Wordsworth's, contributed to the interpretive approach to research now gaining momentum in educational research. Chawla interprets this trend through the work of the contemporary Swiss philosopher Jean Gebser. He provides a means for describing different ways of knowing nature in childhood, as well as different ways of relating to childhood in adulthood. Chawla's spots of times includes and describes Gebser's 'the ever-present origin', 'the necessity of the archaic', 'magic union', 'mythic and mental experience', 'archaic identity', 'magic relations', 'magic and archaic consciousness at play' and 'mythic places'. Chawla concludes with a call for research into what she refers to as 'integral experience' where, in regard to time, the qualities of time experienced by children demand renewed attention, as do responses to the question of how we inhabit our bodies in the world if we are to develop some (re)connection with the natural world. Children's 'memories' are central to Chawla's proposed research program, noting her contributions to the significant life experience (SLE) literature in environmental education and its research. Early years education researchers might grapple equally with the ecopedagogical conceptualization, construction and enactment by educators of such experiences and memories of them.

Simms' (2008) *The Child in the World* does part of that work. Simms proposes a 'genetic phenomenology of lived time' that assertively extends but contrasts with Piaget's psychological emphasis on the logical formation of 'operational time' in children's cognitive development. Like others mentioned throughout this chapter, Simms highlights the 'lived time' of prereflective experience where she asserts time is experienced in a nonhomogeneous way but as dynamic within various flows of spatial presence all of which are indicators of changing movements and modalities of activity over the flow and duration of time. Lived time is a primitive for Simms, as well, in that, as we have already noted, that primordially is layered by various social, cultural and now global constructions of accelerating time(s) whose enigmatic 'natures' culminate intensively and individually in what I have referred to earlier in this chapter as embodied forms of paradoxical and, even, contradictory body~time~space dissonances. Drawing on David Abram's (1996) ecological phenomenology, Simms also posits that the rise of language is the initial stage in the civilized social reconstruction of time and deconstruction of primordially lived organic time. Indeed, Abram is more critical than that asserted by Simms in that he persuasively argues that the emergence of the alphabet, particularly the invention and insertion of vowels, provided a key anthropocentric turn in the rational severing of the human species from its variously lived animations in nature and relations with more/other-than-human species and animate and inanimate things. Now children are abstracted even further into the languages of the net, the msn, screen culture of the *Anthroscene*, reiterating its material role and increasingly fast contribution to the environmental and intellectual wastelands of the ecologically problematic condition. Simms also proposes that the combination of schooling and literacy is at odds with Piaget's genetically predetermined biological change as depicted in his

account of children's development. Simms phenomenological focus on the 'solidarity' of spatiotemporality and children's prereflective perceptual experience of lived time covers numerous concepts like the events and action sequences or frames and scripts of experience, co-temporality of doing with, the deep present, the ambience of children's becoming – all of which provide rich understandings, like Chawla's, for phenomenologically inspired pedagogical development, reformulation of research problems around, for example, the challenge of eco/somaesthetics~ethics~politics as a 'grounded/bodied' inductive and adductive basis of educational, social and cultural critique.

Simms' (2008) phenomenology, interestingly, is responsive to how children experience the future given the nonhomogeneous, non-operational notion of the dynamic flow of time~space solidarities. Again, the concepts deployed by Simms and Chawla are helpful on this matter ranging from the well-known and established constructs of 'play' that demand ecophenomenological reinterpretation such as its 'trauma' to notions of the 'lived and narrated past', things 'tamed and old' (and wild), 'family narratives' and the cultural past. Memory and anticipation of things are key dimensions of children's experiences of time, as indicated in, for example, Trigg's (2012) account of 'place memory'. Simms is critical of how contemporary schooling acts as a collective and cultural memory that very selectively and reductively focuses on the cultural artefacts of literacy acquisition and mathematical notation at the expense of children's natural desire to 'become'. Simms (2008, p. 158) finds it not surprising that children, in general, do not like school and that a paradox exists in education where the future-oriented and teleologically constructed child has to engage the past-oriented knowledge of the culture in which he, or she, and they reside. Griffiths (2013, p. ix) asks why so many children in Euro-American cultures are so unhappy.

Those 'clockwork children' and their cultures of screened enclosures are now a global one in the dromospherical Anthrop/obscene. The future consequences for children's ecological development are likely to be devastating at an intergenerational level and, consequently, for critiquing and revising education discourses within the international quest for an aesthetics, ethics and politics of and for sustainability. And as an aide, at this level of a global response to the ecologically problematic human condition, the United Nations Decade of Education for Sustainability (2006–2015) is drawing to a close. What is next, noting critics of this massive, well-funded, global effort to promote the practices of sustainability find this admirable effort has failed, for many reasons that can't be pursued here apart from one revealing fact? According to research completed by the Australian Education for Sustainability Alliance (2014), 80% of teachers in Australia are either unaware of education for sustainability (EfS) or do not understand what it is. Nine percent of teachers lack a knowledge of how to integrate EfS into their classroom, while 7% are integrating 'compliant' in their classroom and 2% are EfS 'engaged' in their classroom. These findings are damning about the past, present and future. And a compelling indicator of the need for an early intervention for early years environmental education.

From the more critical ecophenomenological perspective formulated here for children, additional concepts and empirically qualified insights and evidence relevant to

the rich possibilities for research, curriculum and pedagogical development and critique can be gleaned not only from Simms and Chawla, for example, but also a number of Payne's studies of children's experience in and of 'nature' and its environments, spaces and places. Payne's 'critical ecological ontology for inquiry' aims at the recursive nature of theory building about environmental education and the normatively reflexive development of research about an education 'for being for the environment and natures'. This empirically qualified research program stresses the critical dimensions of more ecocentric persuasion and praxis 'work'. It has addressed curriculum theory through posing nine interrelated questions (Payne 1995, 2006); movement as experiential ecopedagogy (Payne 2003b, 2005c; Brown and Payne 2009); its pedagogical and democratic inclusion of young children (Payne 2015); children's conceptions and valuing of nature's environments (Payne 1998a, b); children's imaginative experiences of environments (Payne 2010c); the importance of insignificant experiences (Payne 1999b); family studies and narratives (Payne 2005a) of intergenerational influences in the oikos (Payne 2009) of 'pale green' children (Payne 2010a); young adults' embodiments of the socioecological problematic (Payne 1997); technology as subjectification of identities (Payne 2003a); the mobility and fluidity of 'splace' experience (Payne 2009, 2013); slow ecopedagogy as justices (Payne 2014); as well as how research approaches like 'post-phenomenology' (Payne 2003b, 2005b), phenomenological deconstruction (Payne 2009, with Wattchow) and 'new' methodologies in the social sciences, humanities and arts are responding 'post-critically' (Payne 2005c) to a number of 'turns' in theory (Payne 2013).

Payne's conceptual-empirical insights-evidence into children's experience of the temporal-spatial experience of nature confirms much of that identified above or alluded to about the centrality of sensation and movement, perception and reception in meaning-generation and its creative and imaginative making. He highlights the aesthetic role of the 'sensorium',⁵ often intuitively and spontaneously according to movings in various environmental affordances and their 'designs' for and of body~time~space in different scapes (home/oikos, school, neighbourhood, urban, gardens, beach/coast, bush and other 'open' spaces). Payne's studies reveal the degree and extent of how what counts as 'natural' and 'wild/wildness' vary in experience and are, often, dynamically pre-rational or pre-discursive but 'elemental' to interpretation, memory, valuing, understanding and conception and learning and 'knowing'. Indicated already, other layers of social and cultural constructions of experience always overlap, some only summarized here for 'practical' purposes of theory building and research inquiry into children's educative experience – be it formal, structured schooling or other pedagogical circumstances, such as parenting, or informal contexts, such as playing, holidays, weekend activities and so on.

⁵Stoller (1987) and others assert the sensory apparatus of human beings can't really be disaggregated into separate senses even if visuality is (claimed to be) dominant. Hence the conceptual use here of the eco/somaesthetic/affective dimension of experience, or 'synaesthesia', follows Abram's (1996, p. 123) reinterpretation of Merleau-Ponty's 'chiasma' of intertwining, overlapping or sensory fusion. Note also Abram's affirmation of our 'forgetting of the senses' or 'synamnesia', as part of the 'memory problem' of adults already mentioned.

Key 'practices' identified repeatedly by Payne in these studies include the role of active and 'passive' movements and moments in 'other' environments, the spontaneity of exploration and opportunity for discovery in/of nature and the importance of mystery, puzzlement, imagination, skepticism, speculation, hypothesizing and other 'creative' experiences of the 'suspension of belief' and 'promotion of disbelief' via pedagogies of the 'irreal' as embodied in various 'natures'. Methodologically, creative expression of experience via a range of representational forms such as illustration, 'drama' and music, including well-storied 'voice' – be it individual and/or collective narratives – is valued. Other practical/ecopedagogical empirically qualified constants emerging from these actions and practices for retheorizing and research include paying strong attention to the proximal 'environmental design' (Huebner 1967/1987; Payne 2014) of the 'curriculum design' that 'scaffolds' children's memoried ecological experiences in, of and for different versions of 'nature', lived proximally/geographically but within the inevitability of the hybridity/fluidity/liquidity of 'sp(l)ace' lived temporally in the accelerating dromosphere of children's 'lived' experience. One critical ecopolitical constant of these studies is the impact on educative experience of an environmental design where the 'openings' and exposures (and becomings) of various 'natures' – inner, social and external – are bodily enabled, revealed and expressed somatically through a low consumption, low commodity and low 'technics' design of experience. Other 'things' that matter in nature are revealed when an array of techno-things/gadgets 'at hand' and their 'tool designs' are minimized materially (Payne 2003a) and pedagogically (Payne 2014).

Based on these studies of environmental education practices as they often occur 'outdoors' in urban, seminatural and open, natural or wild environments, any 'strong' evidential conclusion of a normative type about the vital/vibrant and animated 'ecologies' of somaesthetics, ethics and politics, usually disaggregated like the reductively individualized senses, is not warranted at this stage. Further reflexive studies are required and, indeed, speculation in materialist, critical and, perhaps, magical/imaginary ways. Again, the pedagogical implications for environmental 'learning', be it in children's or others' socioecological development, call for playful risk taking and role experimentations in experiential approaches to environmental education (Payne 2014, 2015), its theory building and research development.

6.11 Back to the Mind Temporarily: Phenomenology and Environmental 'Learning'

The ecophenomenological reconceptualization for theory building, methodological innovation and research development outlined above discloses 'other' gaps and flaws in what research currently focuses on. For example, somaesthetic meanings (or somatic understandings) and their intercorporeal 'making' of spatialities of feeling and 'affect' are, basically, precognitive. This largely hidden 'pre' of

consciousness, conceptualization, rationalization, cognition, language, discursive and ‘mind’ (and ‘knowing’) is brought into much sharper relief when inquiry and critique is ‘bodied’ in the action or conative capacities and capabilities afforded in body~time~space relationalities as they are ‘felt’ in movement, memorizing and meaning-making within the eco/somaesthetic. Play theory touches upon some of those issues that have been foregrounded in contemporary high theory about affect and its non-representational status (e.g. Jay 2002; Ranciere 2004; Thrift 2008; Butler 2015).

High theory about affectivity, aesthetics, spatiality and environmental designs of meaning generation and the ecological sources of its making creates a real conundrum for conventional theories of learning in education and psychological discourses. For example, in mainstream environmental education research, empirical evidence is limited to formal ‘environmental learning’ which is only now emerging. That development can only be a minor part of the claims of an environmental education envisioned here for early years education. Learning, as we formally use that term, is, in itself, insufficient for the purposes here because it does not acknowledge the significance of the ‘pre’s’ listed above or the material conditions in which they are lived socioecologically and historico-culturally. The significance of affectivity in ecological meaning generation and its making in different environments and their ‘designs’ as they are moved through (or played in) needs to be incorporated into theories of learning. To reiterate, ‘indoor designs’ of spatially and temporally limiting ‘learning’ dominate and are abstracted (or disembodied) further by the acceleration of cyber/digital screen technologies designed by invisible corporate and entrepreneurial interests. Put differently, the *Anthroscene* (Parikka 2015) can be understood as an insidious form of what I will refer to as ‘digital colonialism’ and ‘cognitive capitalism’, dimensions of the neoliberal ‘stealth’ (Brown 2015) downloading or bombing of, in this instance, children’s fast ‘learning’ and accelerated ‘development’.

In practical pedagogical terms, the long-term absence of evidence in education research about the bodied, somatic, corporeal, affective value of ecologies of meaning generation (as well as intersubjective or social) dramatically hinders the progress of the Deweyan-inspired field of ‘experiential education’ (and even constructivist epistemologies) already well known in the discourse of education theory and philosophy as they are pedagogically deployed not only in environmental education but also in outdoor, physical, health, service and citizenship, human development and even adult educations. Each aims to bridge the persistent mind-body, cognition-affectivity, theory-practice and rhetoric-reality gaps so prominent in education. And to which early years education and its research are vulnerable.

As will be outlined below about recent developments in cognitive science, phenomenological philosophy, linguistic sciences and even ‘official’ cognitive/mind theories of learning and associated pedagogical strategies will find it difficult to avoid those often invisible ‘pre’ dimensions of the affectivity of environmental experience, as emphasized environmentally and ecologically throughout this chapter under the umbrella notion of eco/somaesthetics. For that purpose for early years education, building blocks are needed. The phenomenology of play is one amongst

numerous socio-cultural-historical and ecological possibilities in children's experience, and in childhood, proposed for researching, theory building and methodological innovation. But, to state the obvious, the 'ambiguity of play' (Sutton-Smith 1997) is already complicated before we assertively add in 'slower' considerations like the affective, intercorporeal and environmental dimensions of eco/somaesthetics of movement. This aesthetics of experience demanding research is, of course, complicated further by the 'fast' of its technologization or 'technics of experience' (e.g. Payne 2003a, b) via, for example, the enclosed clockwork diarizing of children candidly observed by Griffiths in the introductory problem identification.

Rickinson et al. (2009) developed some useful evidential insights into the importance of 'student experience' as an official form of 'environmental learning' in education. Their approach to the study of learning, as environmental, can be contrasted with conventional positivist understandings that emphasize causal relations and linear effects of largely measurable cognitive and behavioural perspectives during short-term educational interventions. However, this promising research is persistently anthropocentric in design and methodology. It steers to learn about and 'in' the environment, an inherently conservative view (and practice) of environmental education that has attracted considerable criticism in the past, notwithstanding the absence of critical consideration that research gives to the neoliberal-techno-postmodernization of education. Nonetheless, the authors recommend further research on learners' experiences, greater emphasis on emotions and values, better use and development of theory, broader consideration be given to life-long learning and stronger collaboration between researchers, practitioners and learners. In view of the ecophenomenological approach described here, Rickinson et al.'s findings and recommendations are relevant and partially useful but can be broadened significantly, noting their use of the term student 'experience' requires much greater clarification and qualification as it reoccurs spatially and temporally in different settings and contexts or environmental designs of education.

In moving the environmental contours of 'learning' beyond the cognitive mind and indoor enclosures, there are additional but seemingly disconnected developments about the relations of experience and learning that are of immediate relevance to future inquiry about children's experience and memorizing of it. The historicizing first is the 'significant life experience' and 'memory work' literature found in the discourse of environmental education. The second is found in the very recent hybridity of the fields of phenomenological philosophy, cognitive science, neuroscience and linguistics. On both counts, the importance of meaning generation and making in and through experience as formative of (environmental) learning must be stressed, given the importance already explained about key concepts in the phenomenological discourse, such as primordial, primitive, sensation, perception, reception, intuition, somaesthetics, feeling/affect and the various other often invisible or hidden 'pres' of conventional accounts of reason, rationality and the discursive and other epistemological privilegings such as the requirement for assessment of such rational understandings. Again, it is timely to remind ourselves of the problem of correlationism – the gap between being as experience and mind as knowing.

Studies of the possible formative contributions of significant life experiences to sometimes unofficial environmental learning and activism (broadly defined) have been undertaken for three decades commencing with Thomas Tanner's (1980) 'classic'. This research program now extends to international comparisons and contrasts of various factors influential in formative learning and development (see Tanner 1998; Palmer et al. 1999). The program and its methods have been debated (Scott 1999) and revisited (Chawla 2001) in ways that examine the strengths, weaknesses and recommendations for future research. In substantive terms, the somewhat contentious 'end' (for some) of environmental 'activism' is viewed as complex, while the majority of 'influences' interpreted as 'significant' such as time spent in natural areas, with frequent contact with habitat, and its alteration, roles of parents, teachers and even books are all traced to childhood and adolescent experiences. Memory, clearly, plays an important role in this research not only of 'house' and home as accentuated by Bachelard (or postmodern oikos, Payne 2009) but also, more broadly, 'other' socio-environmental and ecological conditions. To what extent a 'cause and effect' relation exists between particular episodes/events (and/or slowly accumulated) and significant experiences, and environmental activism exists is open to debate and further research. But, the empirical fact that significance has been attributed, and memoried, to those formative years of childhood is suggestive of what an early intervention environmental education might include in its curriculum design and ecopedagogical imagination. These studies examined the key influences on attitudes toward the environment and influences on practical concern 'for' the environment as well as interest 'in' the environment' for working in environmental education and commitment to environmental protection.

The investigative methods employed were fairly 'standard' for the time in which the studies of 'significance' were conducted. That time of research coincided with the transition in environmental education research from quantitative to qualitative approaches and the latter's propulsion of different, emergent genres of inquiry (Hart and Nolan 1999; Russell and Hart 2003). This emergence quested interpretively for 'commensurability' of research purposes, means and ends (e.g. Payne 2005b) within the 'post-critical' (Hart 2005). After much 'heat' had previously been cast critically on quantitative and 'applied' post-positivist research in the field focusing on a combination of behaviourism and cognitive development, searching questions about the development of the qualitative alternative were being posed about the field's substantive foci and need for renewed methodological innovation. At risk was an internal struggle to sustain the critical imperatives of environmental education, as introduced earlier, but here played out precisely within environmental education research and the need for greater commensurability. Lessons for early years education research are clear. Progress is being made in environmental education research (Stevenson et al. 2013) and more specifically (McKenzie et al. 2009; Lotz-Sisitka et al. 2013) that heighten interest in the question of agency and emergence of moral sensibilities and ethical as well as political 'growth'.

Second, exciting insights and needed evidence about environmental and ecological learning are now emerging in the 'harder' (human) sciences as phenomenological philosophy, particularly Merleau-Ponty's, is incorporated into 'interdisciplinary'

research programs in the cognitive, neuroscientific and linguistic sciences. There can be no doubt that this revolutionary development will profoundly influence the appraisal and redevelopment of current learning (and teaching) theory and practices in education. Already, this still anthropocentric but hybrid reconceptualization of interdisciplinary human science incorporates movement-oriented therapeutic treatments of a range of mental and intellectual ‘health’ problems. Characterizations of this revolution are contributing to major debates about the ‘embodied mind’ and/or ‘mind embodied’ or ‘embodied meaning’ and ‘embodied cognition’ in various environmentally ‘embodied realisms’ of society and culture (e.g. Lakoff and Johnson 1999; Dreyfus and Dreyfus 1999; Csordas 1999; Gallagher 2005; Petitot et al. 1999; Varela et al. 1991). However, to what extent this ‘new’ interdisciplinary science can deal with numerous ‘contexts’ and ‘designs’ of, for example, children, parenting and schooling remains an open question reiterating the critical orientation of this chapter to body~time~space relationalities and the eco/somaesthetics of experience. Even in these hard sciences, the negative effect of fast/instant ‘screen culture’ on the dromospherical ‘plasticity’ of children’s brains and their development or growth cannot be simply wished away (e.g. Greenfield 2011), least of all in the slow environmental education envisaged here.

Similarly, and in cross/transdisciplinary hybridity, the philosophical notion of ‘somaesthetics’ (Sullivan 2001; Shusterman 2008; Johnson 2008) will help (re) shape ‘play’ and ‘learning’ theory and pedagogical research as well as provide additional affective insights into the significant and insignificant life experience and cognitive science literatures. Unavoidable now in educational theory and practice is the experiential, generative, affective and, inevitably, normative role in meaning-making that ‘non’-representationally mirrors that ‘body consciousness’ of the otherwise preconceptual, pre-rational and pre-discursive or even cognitive unconscious. Enlisting Merleau-Ponty, again, James, Dewey, de Beauvoir and Alexander are historical key informants of the somaesthetic understandings of movement as ‘body pedagogy’ as a form of affectivity.

6.12 Ecophenomenology and Methodology

Many concepts emanating from an ecophenomenological orientation to interpretive inquiry in education are outlined above. A major limitation of this chapter is that a number of recent ‘turns’ in (high) theory have only been alluded to via the brief use of conceptual examples, metaphorical empiricism and figurational micronarrative. For example, high theory alerts us to questions about how human and non-human things exist ecologically as material actants within body~time~space relationalities. This type of less anthropocentric thought is weird, wild and unreal. It’s a strange reframing notion of human-non-human natures, but not ‘really’ – until we remind ourselves that children love to play, discover, explore, imagine, mimic and memorize animate and inanimate things if given the ‘unenclosed’ chance of such spontaneously driven metaphysical freedom.

Researchers will no longer be able to hide from the anthropocentric problem of correlationalism in (non)-representing children's lived experience (by both researched and researcher, Payne 1998b/2014). This significant problem of (re)presenting what we think we know about children's 'reality' and 'experiences' of it stresses the rational limits of language, texts and discourses to adequately or accurately represent the complexity and ecology of human and social experience and its meanings, let alone 'speak for', or on behalf, of things of/in/as nature and its/their ecologies. Uncomfortable questions must, therefore, be raised alongside those of a conceptual type at this point about the importance of methodological innovation and experimentation in researching children and their experience. For example, what is children's voice (or thinking) and who/what is voicing it? Concern about this fundamental problem of representation is now well argued in critical perspectives of (high) theory (e.g. Shaviro 2014) but, for the purposes here of representing children's eco/somaesthetic experiences of time~space in varied material and symbolic contexts including the Anthrop/obscene, there is a compelling need for 'new' interpretive methodological demands and explanations (alongside new high theory) responsive to the empirical question of what can reasonably be represented in research. (Eco)phenomenological inquiry within post-critical framings of research rejects positivism and embraces evolving forms of creative interpretivism. Numerous mobilities and movements in/of experience as well as ecopoetic type sources and resources are possible, as identified throughout this chapter. At best, the enlivened 'representation' of corporeally rich and meaningful experience over time~space will only ever be partial and contingent; much of affective 'experience' and eco/somaesthetic 'nature', and our intercorporeal and intersubjective relations between beings and things, defy interpretive, quantitative and qualitative representation.

This practical, theoretical, methodological and empirical problem of what can adequately or appropriately be represented about children (or adults) as a claim on 'truth' and 'knowing it' inevitably flags major questions about credible 'communication' of deep social~cultural~ecological experience and subsequent claims on the 'multiple (un)realities' of human and non-human experiences. It highlights the value of the notion of yet another 'turn' in theory called the 'non-representation' (e.g. Thrift 2008) encapsulated in the correlational problem of 'accessing' the relationship between the affect of being and thinking (e.g. Sparrow 2014), the researcher and researched and the subject and object of inquiry, critique and evidence (or insight).

With these methodological (correlationism, anthropocentrism, representation and non-representation) limits now in fuller view, the problem of representation, voice and text is exacerbated by the ecophenomenological interest in bringing into 'being' and 'becoming' a somaesthetics~ethics~politics of body~time~space relationalities in and with or for nature(s). We do the best we empirically can to share and communicate our understandings of children's lives and experiences, reiterating the interpretive/hermeneutic rise of increasingly varied representational efforts in the humanities and social sciences that gather under the notion of ecopoiesis – a poetic bringing forth of things ecological. Pragmatically (and practically), in environmental education, worthy of consideration are David Jardine's (2000) textual representations of ecopedagogies and children's visual examples of eco/artography

reproduced in Cutter-Mackenzie et al. (2010). Elsewhere, for representational and methodological experimentation, my own narrative representations of body~time~space relationalities carefully and tactfully emphasize the affect of the sensorium and environmental perception and reception of animality 'in place'. The construction of that (con)text deliberately 'backgrounded' (critically) the debilitating consequences of anthropogenic climate destabilization while indicating the non-representational absences, and presences, as speculated about in experience, so as to 'open' up 'other' possibilities (Payne 2013).

These new theoretical turns demand methodological innovation and experimentation. The turns are extremely complex. Given the acceptance of the Anthropocene (e.g. Latour 2013; Morton 2012; Shaviro 2014), specifically its material consequences, there is now great interest in thought that is non-anthropocentric and non-human and, therefore, creates a genuine puzzle for researchers of an empirical persuasion and need for evidence. All gather around the 'ontological turn' as an object of inquiry. These skeptics of the excesses of anthropocentric thought focus unevenly but critically upon the primacy of ontological sources of epistemology and its debates. Turns in theory abound, as do the enlivened concepts many of those authors play with – philosophical ecocentrism, new materialisms, speculative realism, post-phenomenology, things/matter/stuff theory, post and trans-human, corporeal~intercorporeal and animal, magical realisms, affect and non-representational theory. Many, particularly in the 'post-humanities', gravitate around the revitalized need in inquiry for a politicized 'aesthetics' of the human condition, mostly from a non-anthropocentric posture where the epistemologies of constructivism are to be emphasized far less in these 'new materialisms' and 'speculative realisms'. All invoke the parallel demand for new or different framings, symbols, languages, names, genres of inquiry and methodological innovation adequate to reconceptualizing the research problems and questions brought forth by various new concepts, metaphors, figurations and their transpositions (Braidotti 2006). They cannot be listed, described, contextualized and explained in detail.

As should now be apparent, the common denominator of these turns is the renewed interest in 'ontology', objects and things that exist materially and interact, as a type of agency, within the thing. Surely, this is a 'wild' proposition that will leave methodologists in education scratching their heads. The ontological turn is a departure from the conventional authority of epistemology which so much education discourse embraces in its constructivist stress in pedagogy, teaching and learning. While the politics of epistemology as methodology are well known in educational research, ontology and its politics (e.g. Johnson 2015) have largely escaped the scrutiny that 'being' a human, social and ecological being or thing and the associated becomings now demand. The inclusion in inquiry of the politics of ontology as 'messy' (Law 2004) as that politics might non-anthropocentrically and representationally be, and ecocentrically and non-representationally become, foregrounds a major substantive (e.g. conceptions of children and relations with nature) and methodological challenge (plausible revealing and limited representation) for educational, early childhood, environmental education researchers. The challenge is to accept, understand and make as clear as conceptually possible the

ontology~epistemology presuppositions we make in formulating inquiry and critique and framing of research. Declaring those propositions must also account for the generative and recursive nature of the preferred conceptual propositions. That is, having justified particular propositions in the framing and processes of inquiry; how do they 're-enter' the conduct of research and its consequences for the researched and other stakeholders?

In the post-critical wake of these new turns that, indeed, should build on earlier theory that straddles the ontology~epistemology tensions, it now behoves the researcher to make communicative sense to any audience of the 'relations' assumed or presumed in the triad of ontology~epistemology~methodology, according to the research problem and questions and their conceptions and contextualizations. As persistently as possible in this chapter, the more exacting derivative of that triad for empirical work is the empirically qualified retheorizing needed of body~time~space relations via, for example, the ecophenomenological vantage point so conspicuously promoted post-critically here. Of course, within each turn in theory, there are significant differences and serious debates and hence their politics of entanglements. Applied contexts are affected, like the conceptualization and construction, 'naming' and 'framing' of 'early childhood', 'development' and 'education' or 'inquiry' or 'research,' become major concerns in legitimizing and representing the triads of ontology~epistemology~methodology in the academic/intellectual world in which most readers of this performatively live and body~time~space relations in the post-phenomenological and socioecological everyday world. In the applied context of environmental education research, the notion of 'a critical ecological ontology' for inquiry which, in praxical terms of (eco)curriculum and (eco) pedagogy, highlights the practical triadic focus in education of the social ecology of 'eco'/somaesthetics~environmental ethics~ecopolitics'.

A second common problem highlighted by these new theoretical turns is, therefore, the desired coherence, or commensurability, in research of the 'best fit' of a problem's conceptions, contexts and theories and methodological invention, extension, deliberation development and representation, reiterating, again, the correspondence problem and non-representational concerns, particularly of affect and eco/somaesthetics of issues and experiences 'lived' (Fig. 6.2). These 'openings' for different other than literal/textual (and numerical) epistemologies of representing an underlying ontology have paved the way for different perspectives of, and approaches to, ecophenomenological inquiry and practice in, for example, ecopedagogies of artography, musicology and dramatology as they performatively emphasize the contribution of the sensorium in alternative meaning-making/somatic explorations of culture-nature relations and their embodiments. Not coincidentally, the field of aesthetics education and policy development is now moving 'beyond' art education into environmental and natural aesthetics (Smith 2004), while arts education promisingly includes, amongst many foci, child cultures, social and cultural issues and the body but, beyond a short interlude by David Abram, excludes ecological issues and environmental aesthetics (Bresler 2007).

Beyond the many sensitizing concepts for further 'reconceptualist' inquiry described by Simms, Chawla, Payne and others like Bachelard, there is a wide array

of affectively evocative insights into the lived experience of nature that once were named as 'nature writing'. That eco-poetic sensibility and genre is well known to North Americans, following Thoreau, Emerson, Muir, Leopold, Lopez, Berry and numerous others and, well before them, many European 'romantics' including Rousseau, the Wordsworths and Coleridge. More recently, in what has been dubbed the 'environmental humanities', marked by the rise of environmental criticism (Buell 2005) or ecocriticism (Garrard 2004) and eco-poetics, evocation is well illustrated in, for example, Griffiths (2004, 2006, 2013), more broadly in environmental discourse by David Abram (1996, 2013) and in education by David Jardine (2000). Children's aesthetics, subjectivities and wellbeing in education (Kennedy 2006a, b) and children's culture and ecocriticism (e.g. Dobrin and Kidd 2004) have only recently attracted interest in environmental education research (Cutter-Mackenzie et al. 2010). But it must be said of the environmental humanities and its influence in education that preferred methodologies exist within that movement that line-up mostly with versions of discourse and language/semiotic analyses. The persistence of the correlationism problem within the commensurability problem highlights, yet again, the politics of ontology~epistemological tensions.

At the more difficult methodological-empirical demand of phenomenological research, Max van Manen's (1990) researching lived experience for an action-sensitive pedagogy is, perhaps, the most significant contribution to hermeneutic phenomenology method and, potentially, the requirement for heightened sensitivity to children's realities and their lifeworlds. Hence, his pedagogical emphasis on 'tact', where the researcher's required tactfulness, incorporates reflection, thoughtfulness, seeing, showing, ineffability and competence as components of the creation of action-sensitive 'knowledge'. Central to van Manen's methodology of lived science, one of the very few authors to lay out in detail the relationship between philosophy (phenomenological, in this instance) and interpretive methodology of human science, are four 'existentials'.⁶ Elsewhere in environmental education research, Kaufman et al.'s (2001) use of the 'memory work' methodology in revealing four women's 'experience' of nature deeply extends into their collective corporeality the notions of (in)significance and memory and, more emphatically, locates the researcher (as also the researched) in the ontological~epistemological (and methodological) locus and focus of inquiry outlined here. Marilyn Doerr (2004) uses a phenomenological environmental autobiography about teaching and learning ecology to highlight many of the subtleties of ecopedagogy.

Some caveats. The emphasis here on an ecophenomenology of children's experience of nature's body~time~space scapes necessitates four interrelated qualifications needed in research (and its representation) for the ecopedagogical vantage

⁶These existentials act as guides for reflection in the research (and pedagogical) process. They are lived space (spatiality), lived body (corporeality), lived time (temporality) and lived human relation (relationality or communality). These are well represented in this chapter. Van Manen is adamant that children 'probably' experience these existentials in a different modality than adults. Spatiality is 'felt'; corporeality understands we are 'always' bodily in the world; temporality is subjectively felt rather than objectively; and relationality is the lived relations we maintain with others in the 'interpersonal space that we share with them'.

point anticipated in an alternative early intervention environmental education. The four propositions aim to minimize the potential for van Manen's existentials to be interpreted solely or primarily and singularly or reductively in an andro/anthropocentric and intersubjective manner in pedagogy, curriculum, research and policy deliberation and development. The qualifications stress, first, an 'ecocentric' (non-anthropocentric) disposition in education and its research; second, the intercorporeality of (children's) bodies and their time/scapes in material relations with other bodies, things, matter and stuff, both animate and inanimate; third, the perceptual/sensory importance of the 'affect' of the sensorium and its environmental resources and ecological antecedents in the felt of both the researcher and the researched. Hence, for example, the rise of sensuous ethnography (Pink 2009) highlights movement and other 'mobility' methods like walking (in nature). Such experiences (or activities) are heuristic to methodologies that 'live', for example, children's experiences in ways that pedagogically enhance and extend current methods used with children in environmental education research (Barratt-Hacking et al. 2013; Blenkinsop and Piersol 2013). Fourth, despite the above recommendations, the correlationism problem of what can be represented and what remains 'non-representational' persists, notwithstanding how that problem might be reconfigured by the way in which research is conceptualized, contextualized and then represented and legitimized. Walking theory/philosophy (e.g. Gros 2014)) as environmental practice (Davidson 1980/2012) and methodologies (e.g. Moles 2008) will 'post flâneur' like grapple with these issues, as will experimentation and innovation in new 'play' and 'childhood' methodologies anticipated here.

In different ways that cannot be elaborated here (but see Payne 2013 that combines first person singular description and theoretical exegesis), this reconceptualizing and, subsequently, reframing of an ecophenomenological hermeneutic in theory and research methodology addresses a number of key ideas emerging in the range of 'turns' indicated above. Working with these theoretical issues, concepts and methodological and pedagogical issues in the various ecological contexts of children's lives in different time~space settings remains a formidable and exciting challenge.

Figure 6.2 provides another mapping of the global~local~body~space~time 'relationality' challenge for critical inquiry and methodological deliberation in a critical ecophenomenology.

6.13 Ends-in-View: Post-critical Ecophenomenologies of Childhood, Theoretical and Research Directions

This chapter critically emphasizes the fragilities, frictions, vulnerabilities and collisions between children's sensuously lived bodies in their affective being, moving, memorying and becoming as constituted in and by nature's environments and the constructed realities of social, cultural and global times and their natures, primordiality and postmodernity, slow and fast and ontology and epistemology.

In emphasizing the former of these broad couplings, various tensions and dissonances are highlighted and abound for a possible normative and ethical reconciliation of $\text{O} \rightarrow \bullet$ in the ecologies of internal, social and external natures. My aim is to ferment a wild contribution of education to a 'sustainable' intergenerational eco/somaesthetic~environmental ethic~ecopolitic. Inquiry~critique~theory and empirical research with methodological experimentation as reflexivity are needed.

6.14 The Nick of Time

The timeliness of this needed ecophenomenological disruption of our current post-modern amnesia and somnambulism is captured neatly in Elizabeth Grosz's (2004) *The Nick of Time*. Grosz declared, '...the precarious, accidental, contingent, expedient, striving, dynamic status of life in a messy, complicated, resistant, brute world of materiality, a world regulated by the exigencies, the forces, of space and time. We have forgotten the nature, the ontology, of the body, the conditions under which bodies are enculturated, psychologized, given identity, historical location, and agency. We have forgotten where we come from...' (p. 2).

6.15 The Aesthetics of Childhood

And following Grosz's (2004) rationale for memory work and Honore's (2004) plea for a new philosophy of childhood, Pauline von Bonsdorff (2009) extends both with her 'non-adultcentric' proposition of 'The aesthetics of childhood is not just about children, but about the human situation. We were all children once, and childhood is on the whole a permanent structure of individual lives, of culture and society' (p. 74).

6.16 Social Control

And following Griffith's (2013, p. ix) probing of the 'riddle' of an 'unnatural' childhood and denial of 'metaphysical freedom' via the 'enclosures' of schooling leads us directly to the always prescient John Dewey (1938) who, in *Experience and Education*, challenges the potential for a 'timely' intersecting of ecophenomenology and pedagogy in children's lives with his reconstructive 'growth', 'I have said that educational plans and projects, seeing education in terms of life-experience, are thereby committed to framing and adopting an intelligent theory or, if you please, philosophy of experience. Otherwise they are at the mercy of every intellectual breeze that happens to blow' (p.31).

A critical ecophenomenology of children's embodied becoming in time~space provides at least one radical (re)source for developing an intelligent theory of children's lived experience in education, and its research, and to the challenges now harshly presented in experience for children's 'sustainable' development in, and against, the dromospherical Anthrop/obscene, amongst numerous issues children now confront.

Any strategic response to this global presence in early years education requires further conceptual clarification, theoretical development, methodological innovation, experimentation or extension and empirical elaboration in inventing an experiential environmental education whose slow ecopedagogical resistance to various intellectual and epistemologically privileging breezes is meaningful for children within a broader ethical formulation of children's survival. The need for researcher reflexivity in revealing what von Bonsdorff realizes is as compelling as what Honore demands. For these critical purposes, an array of sensitizing concepts appropriate to pedagogical, curriculum and research renewal have been outlined. Education and schooling can be part of the problem; an experiential (environmental) education for socioecological sustainability can be part of a solution. Time as we mostly live it problematically in → is, indeed, a social construction par excellence, as is its enclosing of childhood and as is its education. Those dominant categories, amongst many such as the home, the family, can, therefore, be deconstructed, existentially, (eco)phenomenologically and textually/discursively (or poststructurally). The deconstruction is only a step in the Deweyan-like reconstructive problem and 'end-in-view' sensitive to the precariousness of 'childhood' with/in that increasingly problematic ecological and social condition filtered materially and symbolically through the thing of a cultural artefact called education.

At the same time in early childhood education studies, we might or must ask with what degree of confidence can we state empirically and/or theoretically, as well as methodologically, that we have sufficient grasp on how children (subjectively) experience time~space in the 'places' they 'inhabit' and 'voice'. Moreover, where does an 'early intervention' environmental education exist in the curriculum for (young) children? Rousseau, Froebel, Pestalozzi, Steiner, Malaguzzi and others were probably on to something important in their respective but much slower times, spaces and places. Now, in the cult of speed, there is an intergenerational urgency in the formative 'foundations' of early years education that requires revisiting for 'adulthood' as well, if there is some truth in von Bonsdorff's observation. Different vantage points for inquiry, critique, theory and research beyond the usual suspects are needed for a revitalized and reanimated renewal of education.

The theoretical and methodological developments of an ecophenomenology of and for childhood beckons. On the weight of the critical insights and sporadic evidence described above about phenomenology's effect on educational and methodological development, the proposition is emergent only at this stage of educational theory and practice about the pedagogically precarious state in which children are 'positioned' in and by conventional 'thought'. A critical ecophenomenology of childhood provides a 'disciplined' inter/transdisciplinary response and counter to those hegemonic epistemological and empirical breezes Dewey alerts us to. Shaviro

(2014) speaks the unspeakable for educators when he concluded, with others, that epistemology requires deprivileging and that ontologically the reality of an ecology of things cannot be subordinated consistently to the never-ending quest for refining ways of knowing or 'how we know' because that ecology of human and non-human beings is the animated actuality and vital source of what can or might be known, not the reverse. But Shaviro might equally be challenged by the 'practical' and pragmatic educator and researcher as to what things, their ecologies and 'environmental designs' might then be pedagogically privileged in the curriculum designs of early years non-anthropocentric education.

Like others speculatively advocating for a non-anthropocentric materialist 'worldview', Shaviro concludes that aesthetics must become the 'first philosophy'. This chapter, theoretically and empirically, pushes his 'aesthetics' more ecocentrically and assertively into the need in education and its research for an eco/somaesthetics~environmental ethics~ecopolitics of body~time~space relationalities as an applied or practically oriented reinterpretation of the underlying tension of ontology~epistemology~methodological deliberation.

In broad summary (Figs. 6.1 and 6.2), given the massive variety of particular local and global contexts in which children experience and live in numerous environments, the 'mapping' of the 'sub/terrain' and 'contours' of reflexive post-critical inquiries requiring navigation in that critical ecophenomenology for future theoretical and research, inclusive of body-time-space relationalities conflicted by $\circ \rightarrow \bullet$, demand deliberation about, in summary of certain keys:

- (i) The politics of the triad of ontology-epistemology-methodology. Translated, following Toadvine's and Trigg's respective questioning of experience and place 'natures' as a possible guide for inquiry, theorists as well as researchers and practitioners must reflexively clarify the assumptions and/or presuppositions they make about ontology and epistemology as that non-dualist ontology-epistemology framing of research is conceptualized, contextualized and represented. Limits, particularly those presented by the problems of correlationism and nonrepresentation, must be acknowledged and justified. For the purposes here, concepts, contexts and representations employed by the researcher with and about the researched will try to accommodate many paradoxes, all of which are inescapably 'political' and ethical. First and foremost, a key substantive one is children's (and their parents, teachers and researchers) increasingly disconnected sense of 'self' from 'nature', its environments and things. In an allegedly more connected fast techno/screen world? Methodologically, what do researcher/reflective practitioners assume substantively about the ontology-epistemology of a school, child care centre, classroom and playground as these mediums of meaning-making and modes of pedagogy inform 'development', identity formations, transitions and, problematically, emergent symbolic sense of *becoming* in the dromospherical Anthropocene?
- (ii) The triad of a normatively predisposed eco/somaesthetics-environmental ethics-ecopolitics whose 'social ecology' overlays the deeper and richer

ontological-epistemological basis of an adequate theorizing of environmentally experiential education relevant to the undertheorized question of children's everyday 'agency' (Duhn 2014) and ecological actancy of the things they experience that matter (Bennett 2010). Moreover, that crucially important relationship of agency and education might also be reconceptualized in a broader post-critical and non-anthropocentric manner. Many 'childhood' agencies associated with the new political ecology of things and their wild and vital materiality affectively connect human and nonhuman forces and animate and inanimate things (Attfield 2000; Bennett 2010). For example, Karen Barad's (2007) notion of 'agential realism' highlights the 'intra-active' nature of things/matter and their 'entanglements' in performatively creating 'diffracted' social and ecological relations. Shaviro (2014), following Whitehead's process philosophy, accentuates the intrinsic *creativity* of all things within their interactions and relations of always becoming *something*. The normativities expressed by these agential relations are, inevitably, political and ethical, as well as being driven aesthetically by the unfortunate 'invisibility' in contemporary discourse of affectivity (Bennett 2010) and, for example, its spatialities in time (Thrift 2008). How these new 'post' understandings of the everyday practices of eco/somaestheticized agency and actancy of things, somethings and nothings are constructed, produced and reconstituted in, for example, theoretical and methodological approaches to the critical development of children's education is an exciting and formidable challenge. Given the precise focus of this chapter, time(-space) is a politically material thing and not another abstraction, for children as well as others. It is a fast object requiring critique as it is invisibly lived for better or worse (e.g. Birth 2012; Boscagli 2014) as part of the body-time-space condition lived relationally. Time is eco/somaesthetically-ethico-politically charged, as Grosz reminds our forgetting, in various environments and their material things/stuff, settings, locales, milieu and places. 'Slow' is, therefore, a practical and pragmatic but partial response to the 'dechildrening' of children.

- (iii) 'Politics' (e.g. Johnson 2015), therefore, is the educational 'core' of deliberation about ontology-epistemology-methodology, as that triadic politic shapes, and is shaped by the 'applied' triad of eco/somaesthetics-ethics-politics in theory and research development in an experiential environmental education of and for children. Typically, in education, the epistemologies of pedagogy and 'learning' understandably preoccupy practitioner educators, while education researchers emphasize methodologies most suited to epistemological concerns about 'best practice' pedagogies and children's cognitive development. Ontological concerns about children's *being* and considerations about their *becoming* are all too often not included. Eco/somaesthetics, ethics and politics of children's lives are often relegated to the theoretically and empirically 'too hard' (or hot) basket. If so, the lives and 'learning' of children are vulnerable to ongoing misrepresentation (and questionable legitimization) and call into question the veracity, plausibility, value and efficacy of many well-meaning educational interventions and the research upon which they are based. But this

assumes a critical, intergenerational concern for sustainability of lives, things and planet. Again, the theorist, researcher and practitioner will need to carefully identify and examine the 'entry point' assumptions and presuppositions about ontology-epistemology they make axiologically about children and their positioning and (non)representation in theory, practice and research. Consideration must be given to the meanings of aesthetics, ethics and politics as they in turn are a key ontological-epistemological basis of meaning generation and making in people's lives. A post-critical ecophenomenology provides a distinctive 'access' point for ontologically focused inquiry and critique into the lived and affectively felt environmental *and* social designs of experience. The 'environmental design' of education practices entailed by the turn to a *non-anthropocentric* or *ecocentric* childlike conception of experience calls for a radical reappraisal of the alleged 'learning' conditions and structures over body-time-space in which children are positioned in curriculum and emplaced by pedagogy (e.g. Payne 2015). Ecophenomenology is an 'other' opening into these questions about what often remains invisible in theory building and research development, notwithstanding the critique that its fullest 'access' into those 'others' suffers from limits indicated much earlier in this chapter (e.g. Sparrow 2014).

- (iv) The advent of new theory/turns and the exciting but always vexed question of how theory and theory of practice deductively invokes or inductively invites not only the (re)conceptualization and (re)framing of research, curriculum and pedagogical problems and questions but the interpretive, representational and, at times-spaces, (non-)correlational quest for commensurability with methodological experimentation, innovation, deliberation, debate and legitimation in educational research (e.g. Pink 2009 cf Jackson and Mazzei 2012, footnote 5). The turns in theory indicated above are different responses, overt or covert, to the omnipresent 'fragility of things' and heightened importance now of democratic 'role experimentation' (Connolly 2013) in a 'mode of existence' increasingly laid bare for repair in the Anthropocene (Latour 2013). Early years environmental education is one such experiment in rectifying that troubled mode.

6.17 A Deep Riddle: A Difficult Riddle

The not so final words of this needed returning to, and reclaiming of, an ecophenomenology of children's lives in the dromospherical Anthropocene go to some powerful imagery extracted from Jay Griffiths (2013, p. ix) *Kith: The Riddle of the Childscape*.

Nature is at the core of the riddle: I began looking for the nature of childhood...
 Childhood has not only lost its country but the word for it too;
 A country called childhood.

How has childhood become so unnatural?...

Born to burrow and nest in nature, children are now exiled from it.

They are enclosed indoors...unthinkable a generation ago.

Children's lives have been subject to intolerable enclosure for the profit of others.

Who owns the child, anyway?

It is in the very nature of the child to want to learn, yet society has historically contrived a school system that...too easily ignores the very education which children crave.

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Author Queries

Chapter No.: 6 0002914548

Queries	Details Required	Author's Response
AU1	Please confirm whether the updated symbols are fine in Footnote 2.	
AU2	The citation Dreyfus and Wrathall (2004) has been changed to Dreyfus and Wrathall (2006) to match the author name/date in the reference list. Please check if the change is fine in this occurrence and modify the subsequent occurrences, if necessary.	
AU3	Please confirm the reference citation Soja (1989) is appropriate in the sentence "Tuan's human geography, like the different ..."	
AU4	Please check sentence starting "In an allegedly ..." for completeness.	
AU5	Please provide in-text citation for the references Carman (2006), Carson (1962), Chawla (1998) or delete from the reference list if applicable.	