

## LOCATIONS, TRANSLOCAL AND TRANSNATIONAL ENVIRONMENTAL EDUCATION RESEARCH IN THE ANTHROPOCENE

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### Abstract

For more than two decades, the Invitational Seminar on Research Development in Environmental (and Health) Education series has provided a unique opportunity for participants from around the planet to discuss critical problems, trends and issues in environmental education research (EER) and environmental education (EE). Using a critical realist/materialist *history of the present* method, this brief commentary outlines some of the key principles and purposes of the Seminar series that helped shape the framing, conceptualization, and contextualization of the 13<sup>th</sup> Invitational Seminar held in Bertiooga, Brazil in 2015. The main theme of the 13<sup>th</sup> Seminar, posed as a researchable question, was: *What is 'critical' about critical environmental education research (EER)?* There are persistent concerns that the early promise and potential of EE in the 1970s is being diminished as the field develops, diversifies and is absorbed into certain dominant logics and/or prevailing practices. The Seminar series is an attractive alternative for researchers historically committed to a critical praxis of EER that promotes environmental ethics and socio-ecological justices. For the first time in the series, environmental education researchers from Brazil (as an indicator of Latin/South America) were invited to give *voice* to their research efforts. In Brazil, there is an emergent *body of knowledge* that serves environmentally as a *location of knowledge*. Possibly, this *literature base* represents a distinctive *geo-epistemological* understanding of the local, translocal, national, regional, and transnational achievements and aspirations of the *Brazilianess* of EER. As an evolving history of the present (and future), this commentary concludes with some basic recommendations for the future local and translocal development of *post-critical* framings of inquiry that highlight the importance of sustaining locations of knowledge production in and for critical perspectives of environmental education research.

**Keywords:** post-critical inquiry, ontology~epistemology~methodology, eco/soma/esthetics~environmental ethics~ecopolitics, geo-epistemology, movement/activity timespace

## LOCALIDADES, TRANSLOCAL Y TRANSNACIONAL EN LA INVESTIGACIÓN EN EDUCACIÓN AMBIENTAL EN EL ANTROPOCENO

### Resumen

Durante más de dos décadas, la serie de seminarios *Invitational Seminar on Research Development in Environmental (and Health) Education* ha propiciado una oportunidad singular para que los investigadores de diferentes regiones del planeta discutiesen problemas, tendencias y cuestiones críticas relacionadas con la Pesquisa em Educação Ambiental (PEA) y la Educación Ambiental (EA). Con base en el abordaje del materialismo histórico, este breve comentario delinea algunos de los principios y propósitos clave de la serie de seminarios que ayudó a dar formato al diseño, la conceptualización y la contextualización del *13th Invitational Seminar*, que tuvo lugar en Bertiooga, Brasil, en 2015. El tema principal del 13th Invitational Seminar, propuesto como una cuestión de investigación, fue: *¿Qué es crítico*

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*en la investigación crítica en educación ambiental?* Hay preocupaciones persistentes de que la promesa y potencial iniciales de la EA, en los años 1970, se están reduciendo a medida que el campo se desarrolla, diversifica y se deja absorber en ciertas lógicas dominantes y/o prácticas prevalecientes. La serie de Seminarios es una alternativa atractiva para investigadores históricamente comprometidos a una praxis crítica de PEA, que promueva la ética ambiental y las justicias socioecológicas. Por primera vez en la serie, investigadores en educación ambiental de Brasil (como un indicador de América Latina/del Sur) fueron invitados a dar voz a sus esfuerzos de investigación. En Brasil, hay un *cuero de conocimiento* emergente que se configura, ambientalmente, como una localidad de conocimiento. Posiblemente, esa base bibliográfica regional represente un entendimiento geopistemológico local, translocal, nacional, regional y transnacional distinto de las conquistas y aspiraciones de la llamada brasilidad de la producción en PEA. Como una historia en evolución en el presente (y futuro), estos apuntes se concluyen con algunas recomendaciones básicas para el futuro desarrollo local y translocal de diseños de análisis post-críticos que evidencien la importancia de mantener localidades de producción de conocimiento en y para perspectivas las críticas de investigación en educación ambiental.

**Palabras-clave:** Análisis post-críticos. Ontología-epistemología-metodología. Eco/soma/estética- ética ambiental-ecopolítica. Geopistemología. Tiempo-espacio de movimiento/actividad.

## LOCALIDADES, TRANSLOCAL E TRANSNACIONAL NA PESQUISA EM EDUCAÇÃO AMBIENTAL NO ANTROPOCENO

### Resumo

Por mais de duas décadas, a série de seminários *Invitational Seminar on Research Development in Environmental (and Health) Education* (Seminário em Desenvolvimento de Pesquisa em Educação Ambiental [e em Saúde] – participação por convite) tem propiciado uma oportunidade singular para participantes de diferentes partes do planeta discutirem problemas, tendências e questões críticas relacionadas à Pesquisa em Educação Ambiental (PEA) e à Educação Ambiental (EA). Com base na abordagem do materialismo histórico, este breve comentário delinea alguns dos princípios e propósitos-chave da série de Seminários que ajudou a formatar o *design*, a conceitualização e a contextualização do *13th Invitational Seminar*, ocorrido em Bertioga, Brasil, em 2015. O tema principal do *13th Invitational Seminar*, proposto como uma questão de pesquisa, foi: *O que é crítico na pesquisa crítica em educação ambiental?* Há preocupações persistentes de que a promessa e potencial iniciais da EA, nos anos 1970, estão sendo reduzidos à medida em que o campo se desenvolve, diversifica e é absorvido em certas lógicas dominantes e/ou práticas prevalecentes. A série de Seminários é uma alternativa atraente para pesquisadores historicamente comprometidos a uma práxis crítica de PEA, que promove a ética ambiental e justças socioecológicas. Pela primeira vez na série, pesquisadores em educação ambiental do Brasil (como um indicador da América Latina/do Sul) foram convidados a dar voz aos seus esforços de pesquisa. No Brasil, há um *corpo de conhecimento* emergente que se configura, ambientalmente, como uma *localidade de conhecimento*. Possivelmente, essa *base bibliográfica regional* represente um entendimento *geopistemológico* local, translocal, nacional, regional e transnacional distinto das conquistas e aspirações da chamada *brasilidade da produção em PEA*. Como uma história em evolução no presente (e futuro), estes apontamentos são concluídos com algumas recomendações básicas para o futuro desenvolvimento local e translocal de designs de análises *pós-críticas* que evidenciem a importância de se manter localidades de produção de conhecimento em e para perspectivas críticas de pesquisa em educação ambiental.

**Palavras-chave:** Análises pós-críticas. Ontologia-epistemologia-metodologia. Eco/soma/estética-ética ambiental-ecopolítica. Geopistemologia. Tempo-espaço de movimento/atividade.

### **Intergenerational (temporal) and globalization (spatial) issues**

At the 11<sup>th</sup> Invitational Seminar on Research Development in Environmental Education held at Queenscliff in Australia in July, 2011, the researchable problem of ‘intergenerational and globalization issues’ was used as a sub-title to highlight the importance of research-led knowledge production and its dissemination in, for example, journals like *Pequisa em Educação Ambiental* (PEA) or, globally, at forums like the World Environmental Education Conference (WEEC 8) in Vancouver, Canada in 2017 or, preceding that, the 13<sup>th</sup> International Seminar in Brazil. The ‘production’ of knowledge has become a challenging problem for researchers, policy makers, and practitioners concerned about ‘facts’ and ‘truth’ (or their opposites!).

With the ‘post factual’ and ‘anti science’ political lobby now deeply etched into the public and global conscience, the full title of the 11<sup>th</sup> Seminar was committed to the question of “*Positioning Environmental Education Research for 2015 and Beyond: Knowledge value and integrity, intergenerational and globalization issues.*” Thirty five early, mid, and late-career participants representing ten countries from around the planet deliberated about the research implications of knowledge ‘generation’ – its value and integrity; its intergenerational ethic and politic; as such knowledge is ‘produced’ through research in various ‘locales’ as they ‘stretch’ socially, culturally, geographically, and ecologically over various time~space layers, ranging from the historical past, contemporary now, to the future planetary. These deliberations about the problematic status of knowledge production in EER occurred in an *alternative* four-day seminar *mode* of collegial ‘intellectual exchange’. These conversations aim for depth, richness, and engagement, so a particular issue is discussed *slowly* for a number of formally and informally timetabled hours, unlike the normal ‘fast’ and ‘short’ conference presentation. The ‘slow research’ format has been a constant feature of the Seminar series since it started in Denmark in 1993.<sup>2</sup> This unique dialogical platform promotes critical, constructive, and generative conversations about ‘hot’ themes, trends, issues, and problems that are at the ‘cutting edge’ of urgently needed research ‘framings’ (PAYNE, 2009).

While the Seminar themes have evolved over the two decades+ of the series, a constant feature is the critical conversations have always emphasized *local* research initiatives and efforts. For example, the 5<sup>th</sup> Seminar held in Denmark in 1999 focused on the status of ‘action competence’ in environmental and health education. The pedagogical, curriculum, and research basis of action competence was developed by a group of Danish researchers in the late 1980s and early 1990s. Although this research initiative was local, a great deal of the conceptual and empirical work developed subsequently over a ten year period was, potentially, *transferrable* (not generalizable) to other local and international contexts of research development. Hence, *translocal* and *transnational*. One consequence of the 5<sup>th</sup> Seminar was the ‘production’ of a co-edited book that included sixteen chapters written by 19 of the 40 participants from 14 different countries (JENSEN; SCHNACK; SIMOVSKA, 2000). Now, from the Bertioiga Seminar, this Special Issue (SI) of *Pequisa em Educação*

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<sup>2</sup> Since Denmark, every 18-24 months, seminars have been hosted in Australia (Brisbane), England (Bath), New Zealand (Christchurch), Denmark (Gilleleje), USA (Anchorage), South Africa, Switzerland (Monte Verita), Canada (Montebello), Australia (Queenscliff), Sweden (Uppsala), Brazil (Bertioiga).

*Ambiental*. And, since the 5<sup>th</sup> Seminar and the publication of the co-edited book, the concept, practice and empirically qualified theorization of action competence has evolved, adapted, and been modified according to changing pedagogical and research circumstances, cultural-geographical contexts, and demographic conditions. Research on action competence is still regularly cited.

Action competence also had an ethical-political ‘knowledge interest that, again, has historically been a major principle of the Seminar series – an academically ethical professional commitment to *critical praxis* for ‘justly’ bringing about transgressive forms of (environmental and social) *agencies* and ‘change’ that are transformative of self, and the role of research in critiquing mainstream approaches to education and how through its pedagogies, curricula, policy, and research activities, including journals and conferences, it ‘reproduces’ and/or ‘contests’ unjust socio-ecological practices and their hegemonic or ideological structures. For example, the notion and practice of action competence is a major deconstruction and reconstruction of the conservative/positivist assumption that providing learners with expert knowledge about the environment leads directly to attitudinal change that brings about the right ‘pro-environmental’ behaviors. The dominant, linear assumptions of the KAB ‘applied science model’ of instrumentalized behaviorism have been criticized, debated, and discredited for many years (for example, ROBOTOM, 1987; SCOTT, 2002). Yet, orthodox/mainstream KAB pedagogies (and research about them) persist in some educational/schooling organizations and, no doubt, in the future.

Invariably, in focusing ‘just’ inquiry and critique on the ‘local’, slow seminar conversations and workshops always examine how ‘neighbouring’ geographical-social-ecological variations and differences can be *translocally* compared and contrasted. And, increasingly as a collaborative *transnational* response to the ‘global’ threat of environmental problems, the focus shifts to national and regional issues concerning research development that highlight the massive challenges of attaining environmental justices we confront in individually and collectively framing, conceptualizing, and contextualizing *critical* and *praxical* responses to the accelerations of, for example, anthropogenic global warming and climate destabilization. Of course, these problems of the Anthropocene ‘move’ fluidly across all boundaries – local, translocal, transnational, regional. Their increasing liquidity has devastating impacts on human-nonhuman-planetary relations and consequences, often known and often unknown, over variable local-global “activity timespaces” (SCHATZKI, 2010) and our “movement” (INGOLD, 2011) through various ‘scapes’ (land, sea, forest, urban, city, etc). This movement/activity timespace is, indeed, performatively constitutive of knowledge generation and/or productions in EE and EER and is embedded in the processes of subjectification and identity formations of knowledge we ‘position’ and ‘reposition’ ourselves (and others) in ‘post-critical inquiry’ (for example, HART, 2013).

In summary, the Seminar series has uniquely fostered important conversations and generated crucial debates about human-environmental and culture-nature relations as they might be transformed in education in the quest for *environmental* and *social justices*, at the micro, meso, macro, and meta-levels of research development. The development of critically reflexive researchers is a high priority, and is exemplified at most Seminars.

Brazilian researchers were invited to the 11<sup>th</sup> Seminar in 2011 in Australia for the first time in the series. Their participation marked a *crucial* ‘moment’ in the *internationalization* of local and national Brazilian EER. First, through various forums and mediums in Brazil, including *Pesquisa em Educação Ambiental*, the field of EER has been steadily developing over a number of decades and, by now, has accumulated a ‘body of knowledge’ (or literature base) that warrants further attention, inspection, and critique – now transnationally and regionally, as the urgency for planetary responses, critiques, and interventions escalates ‘globally’ (north-south-east-west) for environmental and sustainable educations, and their

respective research efforts. Second, to host a Seminar, participation is required in at least two preceding Seminars in ‘other’ transnational geographical-cultural-ecological locations. Prior experiences of Seminars is a highly desirable attribute for volunteer academic groups to plan and conduct a Seminar that, where possible, alternates between the Northern and Southern hemispheres as part of a transnational ‘global conversation’. Brazilian researchers participated in the 11<sup>th</sup> and 12<sup>th</sup> Seminars in Australia and Sweden. Hence, the 13<sup>th</sup> Invitational Seminar in Brazil, Bertioga.

### Locations of knowledge

The *crucial moment* and geographical *turn* to Brazil to host the 13<sup>th</sup> Seminar was underpinned by another constant feature of the Seminar series – the need for a *critical* (theoretically and normatively informed, but also reflexive) process and program of generative conversation and critical debate. The 13<sup>th</sup> theme of ‘What is ‘critical’ about critical environmental education research (EER)?’ aimed to not only extend previous seminar themes but also to highlight what, potentially, is *distinctive* in the accumulated ‘body of knowledge’ of EER in Brazil, as well as what might be found *uniquely* in the local/translocal/national *discourse* of Brazilian EE. And, therefore, should be shared internationally with other transnationally aware researchers from around the globe. Critical scholarship in EER and EE will deconstruct colonizing discourses and practices and reconstructively pursue postcolonial practices, including research and, even, the conduct of a seminar.

Importantly, we pause momentarily here to note that many educational researchers in the Anglo/North-West are familiar with the critical dialogics and *conscientization* processes of Paulo Freire’s *Pedagogy of the Oppressed* (for example, KAHN, 2009). But, few in the Anglo-North/West have any insights into, for example, the critical progress of local and national ‘environmentalization’ of post-Freirean education purposes and its research (for example, PAYNE; RODRIGUES, 2012; RODRIGUES; PAYNE, 2015). Or, for a more precise collaborative examples amongst participants of the 13th Seminar, the idea and practices of the aesthetics of ‘nature’ in Brazilian Cerrado (IARED; OLIVEIRO; PAYNE, 2016) and the affectivities of research methodology (PAYNE; RODRIGUES; CARVALHO; FREIRE; AGUAYO; IARED, this issue). Other contributions to this Special Issue (SI) are indicators of the translocal and transnational potential of EER.

Freire well understood the devastatingly ‘local’ consequences of colonial thinking and practices. And the need for critique, action/praxis, and the quest for ‘liberation’ from such oppressions. Although the later Freire demonstrated a ‘stronger’ environmental awareness and consciousness, he probably underestimated the severity of anthropogenic global heating, its acceleration of climate destabilization, and the magnitude of ecological destruction and social *dislocation*. Freire probably did not ‘assess’ the ‘speed’ of the *globalization* of various discourses/practices, such as EER, and how this techno/cyber *digitalized force* in the ‘everyday’ (even remote locations) reconstitutes and *intensifies* abstracted/invisible ‘colonizations’ of ‘cognitive capitalism’ (family life, universities, schools, politics-economics) given the *stealth* of neoliberalism (for example, BROWN, 2015). One major colonizing consequence of the *global* is the potential ‘loss’ of *local* research and, therefore, the ‘invisibility’ of *translocal* conversations and inquiry. The distinctiveness (and precariousness) of ‘Brazilian’ inspired and driven EE and EER is challenged, if not threatened *intergenerationally*, by this fast, colonizing, global stealth. And, more perniciously, for example, there is intense pressure on Brazilian academics, particularly early career researchers, to publish in ‘top’ (sic) ranked, English language journals. Freire would be dismayed by this globalized research ‘development’ and its associated colonizing

subjectification processes and ‘outcomes’. The negative implications of colonizing processes, often abstractly invisible (like the cyberspace/internet, or the processes through which journals are ‘ranked’) are significant issues in efforts to ‘sustain’ a ‘distinctive’ voice/language/grammar of Brazilian EER within its local, translocal and national sources in EE. This global/western demand is, arguably, unjust and a (probable) source of multiple *dislocations, displacements, decontextualizations, and disembodiments* of that previously distinctive, if not unique, hope for a vital and dynamic local/national body of knowledge. Thus, the extreme relevance and importance of the Bertioiga Seminar theme, ‘What is ‘critical’ about critical environmental education research?’ not only in Brazil, but also transnationally at those *intergenerational* and *global levels* of ‘opening up’ debates and generating slow conversations about what really matters in EER, be it in Brazil, or Australia, or South Africa where the 14<sup>th</sup> Seminar will be hosted in early 2018. For these reasons, we must acknowledge the very difficult decision of the Bertioiga Seminar organizers to conduct the 13<sup>th</sup> in English, not Portuguese, given the global mix of the participants and ‘reach’ beyond the geographical and linguistic boundaries.

At stake, or ‘liquid’ risk, therefore is how in the transnational stage of globalized research we now *engage* historically, linguistically, geographically, and comparatively with research and critique that moves timespace across the porous ‘*boundaries and borders*’ of the local, translocal, national, transnational, regional, and global. Indeed, as we experience the mobilities, liquidities, and fluidities of globalizing postmodernity, particularly in conditions of affluence for some (and poverty for others), and depending on the location of knowledge, the move to translocal and transnational inquiries mark a major point of theoretical, methodological, practical, and empirical departure from the spatially/geographically stable, static, or previously ‘solid’ notions of ‘place’ often used (nostalgically) in EE and EER. There are a few exceptions where remnant or derivative place might still be found – even remote tribes/communities are partially exposed to the digital/cyber world of the internet. The accelerated ‘movements’ and ‘mobilities’ of knowledge in various ‘scapes’ and their timespaces demands that liquid notions of post/late modernity (for example, BAUMAN, 2000) like ‘non-places’ of supermodernity (AUGE, 1995) and ‘un-place’ of memory (TRIGG, 2012) are incorporated into the framings of EER (for example, NAKAGAWA; PAYNE, 2015), including the recent emergence of ‘mobile methodologies’ (FINCHAM; MCGUINNESS; MURRAY, 2010).

The planning, conduct and now ‘follow up’ from the 13<sup>th</sup> Seminar in Brazil via, at least, this SI of *Pesquisa em Educação Ambiental* was very mindful of these ‘meta’ global trends/issues, and the critical history of EER promoted ‘internationally’ through the Seminar series, including the main theme of the 13<sup>th</sup> Seminar, as well as the local/regional histories of EER in Brazil and associated ‘Latin’ America. Not coincidentally given these problems, paradoxes and dilemmas, Claudio Canaparo’s (2009) *Geo-epistemology: Latin America and the location of knowledge* is an outstanding theoretical resource for deliberating about the threats to the distinctiveness of EER in Brazil and ‘extension’ of Freire’s thinking and associated discourses about global pedagogies of local oppression. Canaparo’s version of geo-epistemology is an ontological example (using categories of culture and nature, and their interactions – relational ontology) of how various socio-ecological ‘locations of knowledge’ such as a favela in Rio, the Amazon, the wetlands of the Central-West, the Atlantic Savanna forests, or various coastal areas and their hinterlands can serve ‘distinctively’ as ‘deeper’ pedagogy (*ontological-epistemological*) of ecological-historical-cultural sources of framing, inquiry, critique and research development, including much needed methodological experimentation.

Canaparo’s version of geography as philosophy, or ‘geo-epistemology’, challenges many of the assumptions made about the concept (and various practices) of ‘Latin America’

and demonstrates how many ‘subjectivities’ (in the North-South-East-West) are, indeed, a ‘universal’ consequence of western constructions of science, empire, and their colonial footprint and mindset, or ‘worldview’. Canaparo deconstructs this logic and practice. He emphasizes the importance of ‘spaces of thinking’ that highlight how particular locations of knowledge and their specific cultural and ecological histories can contribute to the critical need for a postcolonial type ‘reversal thinking’ – the local/internal capacity to manipulate the assumed or presumed consequences of external Western/European dominance - a concept that Freire, amongst others, would find very appealing in resisting ongoing colonialisms and reconstruct them positively in ways that enable the oppressed to ‘speak’. Canaparo’s ‘latin’ version of geo-epistemology was heavily influenced by the work of Walter Mignola, an Argentinian semiotician, who specializes in the geo-politics of global colonizations of knowledge production.

Here, also of direct relevance to EER in Brazil and, in relation to the global politics of EE, these critical concerns about geo-epistemology as a location of knowledge and the performativities of activity timespace in producing such knowledge have been raised in a different Special Issue (SI) of *The Journal of Environmental Education* (PAYNE, 2016a). This SI critically focused on the ‘politics of policy in education for sustainable development (ESD)’. Ten environmental education researchers from different locations around the planet who are heavily involved in translocal and transnational research were assembled to provide a well overdue research-based “critical reaction” (STEVENSON, 2013) to the policy making processes of, amongst other things, the United Nations Decade of Education for Sustainable Development, DESD, 2006-2015). These ‘practising’ experts in EER *individually* offered a series of recommendations for future inquiry, research development, and critique; some at local and translocal levels (TEAMEY; MANDEL, 2016), some at national levels (BENGTTON, 2016; KOPNINA, 2016), some at regional levels (BERRYMAN; SAUVE, 2016; GONZALEZ-GAUDIANO, 2016), and some at local-global levels (JICKLING, 2016; LOTZ-SISITKA, 2016). In different ways, they inform what Canaparo refers to as the need for a *reversal perspective*, as well as *thinking*. Most of these researchers just listed have participated in these Invitational Seminars. Most have also contributed to the World Environmental Education Conferences (WEEC) and, indeed, led and organized an individual conference.

*Collectively*, their *individual* recommendations for future research for the fields of EER and ESD were then summarized and ‘extended’ to an ‘outside’ of thought (PAYNE, 2016b). We observe here with a degree of caution the replacement of the DESD 2006-2015 includes other global policy imperatives such as the UNESCO Global Citizenship Education, 2014-2017 (GCED) and Global Goals of Sustainable Development, 2015 (GGSD). These refined policy imperatives are being ‘rushed in’, often in different locations around the globe but in the relative absence of an empirically-driven research-based critical reaction, following Stevenson, to such policy pronouncements and processes, such as that outlined in the paragraph above. Payne’s extended-outside synthesis and recommendations for future ‘layerings’ of geo-culturally-ecologically *sensitive* local, translocal, national, transnational, and planetary research focus on a range of trends, problems, and issues. Key/major challenges for critical environmental education researchers to consider include:

- The need for the researcher and researched to ‘reclaim’ their individual and collective senses of, and practices for, **socio-ecological agency**. **Critical praxis** in research is urgent in the Anthropocene, a force that is now driven globally-locally by various powerful forms and manifestations of neoliberalism in the everyday, including University and School settings. Agencies – personal, organizational/institutional, and structural can paradoxically be positive and/or negative, enigmatically enabling and

disabling, and, frustratingly, empowering and disempowering. EER will assist agents to struggle praxically with such paradoxes.

- Critical praxis will assertively incorporate the *affectivities* (feelings, moods, emotions, perceptions/sensations/responses, affordances, intuitions, passions, spiritualities, and so on) of the researched and the researched. Such praxis will include an *eco/soma/aesthetic* dimension of sensuous research approaches (for example, PINK, 2009) about the bodily lived experience of agents/actors in timespace (for example, VAN MANEN, 1990) that relationally *intra-acts* in various agencies, such as the geo/eco ‘spatialities of feeling’ (THRIFT, 2008) with more formalized/constructed *socio-environmental ethics* and *ecopolitics* in, of, and for (environmental) education.
- Critical treatment of various ‘hard’ and ‘soft’ *technologies* and their increasingly problematic role in the *transitions in postmodernity* of the human, the posthuman, and even the nonhuman. Each of these ‘human’ terms have variations of meaning and, therefore, demand intense scrutiny. The question of how human-environment, and culture-nature, or post-human and hybridized nature, and their respective agency-structure relations and ‘connections’ (or disconnections) are being *reconstituted, deconstructed, reconstructed* and *de/re-traditionalized* in neoliberal forms of *ecological modernization* by, for example, the digitalization of pedagogies and other dis/re-locations and dis/re-placements of, for example, socio-environmental learning and environmental-ecological education research, and their respective geo-cultural-ecological epistemologies and methodologies.
- The existence, status and health of **Nature** where ‘nature’ includes ‘inner’, ‘social’, and ‘outer’ versions. Their ‘reconciliation’, even partial at the local level, with/in eco/soma/aesthetics~socio-environmental ethics~ecopolitics might be a worthy aim or purpose of the critical praxis and agencies of researcher/researched in EER and EE. But, some academic commentators in the affluent North/West have declared Nature is already ‘dead’, or at ‘an end.’ If so, what is being ‘sustained’ and what, therefore, is the purpose or rationale for EE and EER?
- ‘Bringing theory back in’ (JAMES, 2006). For example, Canaparo’s (2009) theory of geo-epistemology is crucial, as is Schatzki’s performative activity timespace, amongst many other intellectual resources, contributing to the production of knowledge. There are significant *movements of thought* in Western theory, at least, as a well overdue philosophical response to the Anthropocene and, for example, its anthropogenic global heating, climate destabilization, toxification of lands, and acidification of waters, seas, oceans. There are numerous *turns* in contemporary theory that provide excellent intellectual resources now demanded in the framing (and naming) and conceptualization of post-critical environmental education research. Their availability in languages other than English is not known. The movements and turns include *non anthropocentrism, nonhuman, new materialisms, speculative realisms, ecophenomenology, timespace, animal/corporeal, and geo-philosophical. Feminism*, too, is evolving through these turns. These turns need to be scrutinized because they go well beyond the linguistic turn of poststructural theory that has dominated in critical discourses over the past decade or so in EER with its analytical and interpretive emphasis on discourse and text, and their deconstructions. ‘Other’wise, many of these ‘new’ turns are consistent with the philosophical interests of EE and EER (in the EuroWest/North American centricities, at least) and respective commitments to critical praxis, and reclaiming it, as evidenced in the Seminar series.
- *Ontology~epistemology~methodology (and axiology)*. Environmental education researchers live, ‘body’, and work in exciting theoretical and methodological

timespaces in producing knowledge but, practically, in profoundly disturbing, distressing and, potentially, destructive local – global circumstances and conditions and rapidly changing planetary prospects. Closing the ‘theory-practice’ gap here through providing a listing of key concerns, and there are many ‘others’ (PAYNE, 2016b), all point in one main direction for research development. A priority for reflexive researcher development is the **politics** of ontology~epistemology~methodology. Each in that *triad* affects and effects the other in research deliberations. There is also the ‘applied’ triad in EE and EER of eco/soma/aesthetics~socio-environmental ethics~ecopolitics as they recur in each dimension of the triad of ontology~epistemology~methodology. The two triads are mutually constitutive. How, and for what purposes is a ‘political’ question of ethics and aesthetics. Each checks the other. And must be post-colonially contextualized. There is intra action and inter action in the ‘agencies’ of the triads. Researchers, therefore, need to be deeply aware of the assumptions and/or propositions they make in *framing* and naming their general research problem, their specific research questions, how such framing is *conceptualized* and *contextualized*, as well as declaring the normative commitments and axiological purposes (BENGTSSON, 2016b), and ethical/professional conduct of the research, its limitations, its *representations*, and *legitimizations* (PAYNE, 2009).

- **Limitations of research that are not really limitations.** The movement in theory to ontology and associated deprivileging of epistemology and, consequently, implications for methodological deliberation about the triadic politics of *ontology~epistemology~methodology* casts major limitations (sic) on the ability and capacity of the researcher and researched to *access* what is *real* and its *truths* and its *rightness* (or not, as might be the case). New theory confirms various epistemic (and methodological) fallacies in that there is always a *non correspondence*, or *non correlation* between the beingness and thingness of things, objects, matter, and stuff, the human and non human experience of these things and their intra and inter-agencies, and the ability of ‘language’ and other mediums to literally, technically, poetically, and artistically represent the depths and richness of various movement/activity timespace performativities and affectivities. Put simply, language is only an approximation of experience that, in turn, is a simplification of our (individual, collective, ecological) *being* and *becoming in timespace*. The emphatic *nons* of the *correlational* and *representational* (for example, THRIFT, 2008) sits (un)comfortably with the representational and what might be adequately represented, so the partiality, conditionality, and contingency of ‘subjective’ and ‘objective’ realities and subsequent truth claims needs to be seen in this ‘messiness’ of various ‘sciences’ of inquiry (LAW, 2004). Interpretive approaches to inquiry, including ‘post’ qualitative research now need to be seen, and reassessed, in this ‘post-critical’ lightness/darkness, and in-between.

Historically, the Seminars have slowly *identified* these, and other highly contemporary openings for research deliberation and development in EER around crucial issues and compelling demands (and expectations) in/about/for EE (as well as ESD/EfS).

### **The politics of ontology~epistemology~methodology in EER: A history of the present**

I have participated in the Invitational Seminar series for over 20 years and, hence, the invitation from the Editors of *Pequisa em Educação Ambiental* for me to write this historically aware conceptualization and contextualization of the 13<sup>th</sup> Seminar in Brazil (with apologies for writing in English). It is clear that there is now an imperative for researchers

(and their institutions) to reclaim their agencies and purposefully undertake deeply sensitive local and translocal research with/in the researched. Locations of knowledge are fundamental to inquiry and critique if, indeed, there is to be a less oppressive, positive *ecopedagogy of nature subordinated*. Locations enjoin the researcher and the researched, the human, more than human, and non human, and culture-nature. But the practice of ‘locations’ in research should not conflate, for example, the researcher and the researched, or collapse, for example, culture-nature. Their relational differences serve *ecopedagogically* as a social counter, or form of ecological resistance, to the excessive/exploitative economics, politics and digital/consumer colonialisms of global neoliberalisms and their abstracted/invisible *technopedagogies*. On the other hand, locally transgressive and transformative ecopedagogies highlight the positive qualities and characteristics of sustainable human-environment relations, as well as researcher-researched.

A good question to ask about relations is how, and in what ontological and epistemological ways is there a connection and/or disconnection of the human–nonhuman, culture–nature, and ‘scale’ (demographic/geographic) within the experience of the ‘local’ and ‘translocal’. Or, the ‘urban’ or ‘city’ or rural, or Amazonia or Savanna, as well as ‘national’ or ‘regional’. How are such relations constituted and mediated at micro, meso, macro, and meta levels of inquiry, analysis, interpretation, explanation, representation and legitimization (within the previously stated challenges of partiality and contingency of (non) access, correlation/correspondence, and representation? Research is always and everywhere a political (ethical-aesthetic) question that demands a carefully deliberated response from the researcher in relation to his/her researched – including humans and nonhumans.

Critically reflexive researchers must struggle geo-epistemologically in the movement/activity timespaces of knowledge production. This reflexivity can be *framed* from within the two intersecting triads outlined above. Researchers must struggle intensely with how they develop and *name* the research problem and questions. They must struggle with what concepts and conceptions best ‘match’ the research problem and questions. How will the framing and naming be shaped by the human-nonhuman circumstances and historical-cultural-ecological contexts of the inquiry? Will consideration be given to the relative liquidities/fluidities across the postmodern/digital, modern/analogical, and premodern/organic? And, then, what methodological assemblage is demanded in research, inquiry, and critique to partially satisfy some resolution of the problem? These questions, and many others not posed or probed here in this brief commentary, can only be answered from within the ontology~epistemology~methodology ‘tensions’ in which the researcher/researched are aesthetically and ethically embedded as well as politically and environmentally/ecologically immersed.

A wide array of intellectual resources is required in the initial framing of research, its development and conduct, and then representing or reporting (dissemination) of the completed research. Inter and transdisciplinary inquiries are demanded and cannot be avoided or evaded. How do the environmental humanities in Brazil (re)present its coast, or coastal ‘scapes’, or the jungle, help us understand the history and environmental aesthetics of, for example, preferences for the Savanna, or coast, or...? How does ecophenomenology help us understand the ‘lived’ and ‘bodied’ perception, sensing, and movements and mobilities of humans and nonhumans in the Atlantic forest? How do the environmental sciences help us understand the changing morphologies, aquatic life, and climate changes of a tributary of the Amazon River where local lives and indigenous cultures are being displaced by industrially mega-size clear cutting? How do the social sciences help us understand the ongoing influences of, for example, religion, the military, the tribal, the liquid/fluid/mobile of postmodernity, and numerous other social-cultural factors affecting and effecting the social

ecologies of locations and translocations of knowledge? And so on, across the sciences, social sciences, humanities, and arts.

### **Distinction: Strategic and tactical responses**

So, after 20+ years and 13 Invitational Seminars, as a brief ‘history of the present’ (and future), the Bertioga Seminar was organized around the research question: “What is critical about critical environmental education research?” There are many ways this pressing problem can be tackled.

One response described in this commentary might well be; there are distinctive historical-social-ecological features, qualities, and characteristics of positive, enigmatic, paradoxical, and negative nature-culture and human-environment relations in Brazil (or Chile, or Peru, or Australia, or Canada, and so on) that demand identification, investigation, deconstruction, reconstruction, and representation at the local, translocal, bioregional, and national levels, and their ‘layered’ intersections. Then, at an international, transnational, and planetary level of response to the globalizing problem of the Anthropocene, we might more confidently and distinctively ‘think globally and act locally’ while, at the same time ‘think locally and act globally’ in such a *just* way that we aesthetically, ethically, politically, and spiritually nurture an ‘ecology’ of the micro, meso, macro, and meta ‘scales’ of our individual and collective movements and moments in various timespace ‘scapes’.

In summary, might we develop some *strategic* responses, even partial and tentative, to the many questions that must now be *critically* posed and *praxically* probed before the Seminar series returns to somewhere in South and Latin America in the future? Or, in the meantime, beyond the other articles in this Special Issue, how might we frame another SI of this journal? Or/and *tactically* develop local and translocal research groups in different geocultural/bio-regional settings, charged with the task of critically addressing or creatively experimenting with the ‘openings’ presented here that add distinctively, inclusively, and, perhaps, democratically to the emergent body of EER knowledge and literature bases of EE, ESD, and EfS in, with, across and for Brazil, and beyond?

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