Postphenomenological Enquiry and Living the Environmental Condition

Phillip Payne, La Trobe University, Australia

Abstract

The acknowledgement of at least three "social constructions" crucially relevant to the interests of environmental education highlights the need for keener insights into the field's practices. These constructions are the self, nature, and, most significantly for the purposes here, the relations of that self and the various environments he/she experiences. Enquiry of a phenomenological type deals assertively with "constructionism" because of its quest to interpret human experience as it "itself" is "lived" and *"structured." Postphenomenological enquiry can reveal the* embodied relations *of those socially constructed experiences of self and environment/nature. In exploring the genre of phenomenological enquiry, this article identifies some of the key socio-ontological signposts, substantive foci, challenges, and predicaments reflective teachers and researchers should consider in enquiring into the contingent and relational nature of human experience. This* critical, post*phenomenology responds to the need to incorporate ontological considerations into the politics of environmental education research (Robottom & Hart, 1993).*

Résumé

La reconnaissance d'au moins trois « constructions sociales » se rapportant essentiellement aux intérêts de l'ERE met en lumière le besoin d'idées plus approfondies de la conceptualisation et des pratiques dans ce domaine. Ces constructions sont le soi, la nature et, notamment aux fins du présent article, les relations du soi et des divers environnements dont il fait l'expérience. Une enquête de type phénoménologique s'intéresse avec assurance au « constructivisme » à cause de sa quête de l'interprétation de l'expérience humaine comme elle est « vécue » et *« structurée ». L'enquête post-phénoménologique peut révéler les* relations incarnées *de ces expériences du soi et de l'environnement ou de la nature construites socialement. En explorant le genre de l'enquête phénoménologique, cet article identifie quelques-uns des plus importants indicateurs socioontologiques, centres d'intérêt, défis et obstacles que des enseignants et chercheurs réfléchis devraient considérer en étudiant la nature contingente et relationnelle de l'expérience humaine. La* post*phénomenologie* critique *répond au besoin d'incorporer les considérations ontologiques dans les opinions politiques sur la recherche en ERE (Robottom et Hart, 1993).*

The "thing itself" examined here and eminently suited to phenomenological enquiry in environmental education is the *lived nature* of the *embodied relations* experienced by an individual interacting in her or his "environments."[1] Experiences of a relational type are constituted historically and culturally and, increasingly in the period now known as postmodernity, are reconstituted discursively, socially and symbolically, often through powerful technological mediums. Thus, the contingent, mediated and abstracted nature of the self-environment/nature relation "itself" is presumed here to be:

- problematic; and
- suggestive of the need for a *postphenomenological* approach to enquiry.

This article proposes a direction phenomenologically inclined teachers and researchers in environmental education might pursue in clarifying the *socially constructed and technologically mediated* nature of those *embodied relations*, particularly as they re-occur in what is popularly known as the environmental or ecological "crisis." Hence, a *critical postphenomenology*. Environmental education will benefit from clarifying those embodied but increasingly abstracted relations because any experience constructed pedagogically in the name of education deserves to be interpreted, described, and critiqued.

Two preliminary comments are offered. In exploring the potential of (post)phenomenological enquiry to respond to the crucial existential question for environmental educators about the embodied nature of "environmental relations," only passing mention is made of the genre's limited presence in environmental education research. Second, in making sense of those relations, the *critical* and *postphenomenological* approach proposed here draws from a broader range of social and environmental discourses.[2] These discourses are, however, not examined or elaborated here due to the immediate need to describe the proposed "critical postphenomenology" in a practical manner relevant to recent trends in environmental education where, undoubtedly, there is renewed pedagogical interest in the value and underlying nature of educational *experiences*.

What are the developments in environmental education that suggest phenomenological enquiry is well suited to advancing the field? One is the increasingly emphatic use of experiential and constructivist pedagogies whose "interdisciplinarity" and "holism" is argued to be influential in "ecologically" shaping the "thinking" and "doing" of children, youth, and young adults. A second is persistent interest in the question of competent human action in responding democratically to various environmental problems and issues. A third is the heightened appreciation of the complexity of a technologically-replete postmodernity and its "glocalizing" impacts on the body, self/identity maintenance and sociability, as they might be understood within the consumer and entertainment imperatives of child/youth cultures. Another is the importance of deconstructing language, texts, images, myths, and discourses due to

their presumed or possible effects on human subjectivities and subsequent constructions of gender, youth, class, ethnicity and nature. A fifth is ongoing criticism of the instrumental role of environmental education curricula and research. And sixth, perhaps in contradiction with the fifth, is the need *for* an environmental ethic or ecopolitic to be embedded within the pedagogical practices, or curricular experiences, of environmental education.

The pedagogical importance now attached to curricula experiences *within* the social construction of environmental education calls for more astute research methodologies that are capable of furnishing better interpretations of human(s)-environment(s) and culture(s)-nature(s) actions, interactions and relations. (Post)phenomenology is ideally positioned to provide these interpretations because one of its primary tasks is to question the (post)modern nature of lived experience. As will be described, postmodern experiences can be characterized as the escalation in the everyday of:

(i) enigmatic time;
(ii) mobile places and fluid spaces;
(iii) the compression of such times, places and spaces; and
(iv) the intensification of (i), (ii) and (iii) through the use of technologies.

These "signposts" for phenomenological enquiry, be it by students, teachers, curriculum developers and researchers, might productively inform interpretations of various *educational* and *everyday* "forms of experiences" that may, or may not, be environmentally problematic. Why? The remainder of this article explains the interpretive use of these four socio-ontological signposts in enquiry. It elaborates how interpretations of experience might contribute to critical (self) understandings and (social/cultural) explanations of agents' actions, interactions and relations in reconstituting those problematic socio-environmental conditions we label as in crisis. In so doing, we may begin to question how we actively construct, conceptualise and act upon what we (re)name as our environmental ethics and politics. I conclude the article by identifying three predicaments that will challenge phenomenologically-inspired enquirers to adopt a critical stance about the potential for post-phenomenological enquiry to advance the field's aspirations.

A related purpose of this article is to re-engage a debate in environmental education research identified by Robottom and Hart (1993), namely the politics of epistemology, methodology and ontology within and between the field's various paradigms of enquiry. There have since been significant developments in the breadth and depth of the field's research endeavours and evidential outcomes (S. Gough, 1999; Hart & Nolan, 1999; Rickinson, 2001). Sadly, of the three dimensions of research identified by Robottom and Hart, ontological concerns are not a priority or they lack in visibility, a point conceded in the meta-reviews referenced above where, clearly, enquiries of a phenomenological type are scarce or inconspicuous.

A debt to some earlier philosophical works in phenomenology must be acknowledged by way of indicating the conceptual thrust of what is being proposed here as a critical, *postphenomenology for enquiry*. In *Being and Time*, Heidegger (1962) stipulated, "Only as phenomenology is ontology possible" (p. 60). Heidegger, and others linked with twentieth century phenomenology, sought to wrest philosophy back from its positivist inspired trivialization and fragmentation (Heidegger, 1962, p. 2) to the processes of questioning "things themselves" or, according to Merleau-Ponty (1962, p. vi), the "essences" of those things that are "already there before reflection begins." Merleau-Ponty's phenomenology of perception, for example, anticipated much of the current interest in the body in his questioning of its sense experience of the world. Schutz's (1932/1967) phenomenological sociology focussed on the "everyday" where he argued people intersubjectively create and are constrained by their social reality, and knowledge or practical reasoning of it, within the existing socio-cultural structures previously created for those people. In a similar anticipatory vein about what we describe as a technologically replete postmodernity, Heidegger's (1977) questioning of technology identified its challenging of Being, denoting it as a "(supreme) danger," where nature is instrumentally revealed as "standing reserve" (p. 298).

Reconstructing the Practical Problem of Experience

As suggested in the introduction, there are at least six reasons why environmental education teachers and researchers should consider a "phenomenological/ontological turn" in planning for and questioning how individual and collective experiences of environments are constructed via various pedagogical, curricula, and research means (Payne, 1997). Many environmental educators are (strong) advocates of field trips, site examinations and excursions, problem-based investigations, and community/place-based action research. Many agree that experience is at the pedagogical heart and curricula soul of a great deal of learning in environmental education. Underpinning this consensus about the importance of "real," "direct," or "authentic" learning experiences is, of course, tacit and, perhaps, naïve agreement that such experiences are enhanced by the "primitive" engagement of the organic, corporeal or sensuous human body in the actual subject matter of that which is to be learned "environmentally."

Implicit in these "native" experiences is some ethical benchmark or moral compass about both "inner" human and "outer" physical "natures," their valuing as independent and interdependent "environments," or relative worth for sustainability. It would be a dereliction of responsibility, however, to not acknowledge that the key idea of experience so often touted by teachers and researchers remains ambiguous (Payne, 1999). This ambiguity of meaning about experience is demonstrated in the variable uses of adjectives like

concrete, direct, vicarious, cyber, native, mediated, indoor, and wilderness, to name a few. In addition, those elements of experience presumed to be central to learning in environmental education, namely action and perception, consciousness, conception, and social construction are equally vague. So it is with the notions of "self" and "nature," the necessary partners in the experiential relationship whose socially constructed and re-embodied nature provides the "thing" for this article's focus.

If conceptual vagueness about experience (of self and of nature) is still present, environmental education teachers proclaiming its virtues and researchers studying it, are immediately confronted with a fundamental problem. That problem is the elusive "nature" of experience whose susceptibility to "every intellectual breeze that happens along" (Dewey, 1938/1988, p. 31) is still a chronic concern. Dewey called for educators to frame and adopt an intelligent theory of experience. More recently, Usher and Edwards (1994, p. 205) argued that the relationship of postmodernity and experiential learning is undertheorized; a deficiency that might partially be overcome through critical, postphenomenological enquiries. Otherwise, as Usher and Edwards conclude, "experiential learning is fast becoming a central object in a powerful and oppressive discourse." Likewise, Bauman (1997) expressed concern about the postmodern consumer-driven desire for "meta experiences" and the growing demands for "teachers of experience."

The meanings of experience are troubling. One fundamental issue confronting environmental education can be posed in two different ways, each of which anticipates a *critical* and *post*phenomenological approach to enquiry. What are the "lived natures" of the embodied relations "experienced" between a socially constructed self and his/her environments? Or, how does one reconstitute the prevailing socio-environmental condition in which one lives? Restated within the current discourse of environmental education, the challenge for teachers of experience and the researcher of it is to clarify what it is (or is not) for learners to be "in" or "with" the environment or *do* some*thing* "for" or on behalf of it in coming to *know, think, and talk* "about" the environment.

Phenomenological and Ontological signposts

Critical, postphenomenological enquiry might be understood here as a two phase process of excavating and interpreting the embodied nature of the relations lived by an individual in his/her environments. The term "excavating" is used metaphorically to denote the task of "digging out" from a human subject's embodied experiences those underlying patterns, or (relative) *essences*, of what it is for an agent to act, interact, and associate with "others." At the same time, this excavation is interpretive where making *sense* of the *being* and *doing* of an *experience* can occur in a variety of bodily ways (for example, intuitively, tacitly, habitually) or rationally (for example, discursively, artistically). More

specifically, the phenomenological enquirer will try to extract the *invariables*, or (relative) constants, of human experience from the *variables* within a particular phenomenon, such as riding a lift where different "riders" act (tacitly) in a (relatively) common and harmonious manner according to the historically "given" social context and structuration of "lift riding."

Another ontological entry point is to phenomenologically search out what people *do* when human experience is structured *in situ*, such as explaining how a kayaker is physically and materially (and, perhaps, socially and symbolically) positioned in and by the kayak (and its "environmental" contexts such as the river and its morphology). In a lift, the phenomenologist might ask what are the underlying *conventions* of action, interaction, association and exchange of "riding"? Do these conventions have visible and invisible "rules" and "resources" that actors draw upon and both enable and constrain the actor/subject and his/her relations (with other actors)? What is it to *be* a "lift rider"? In kayaking, what is it to *do* the activity of paddling? What is it *to paddle* and *be* a paddler?

Clearly, these essences and structurations of embodied experience are often *pre-reflective* and lie *below consciousness* making the interrelated processes of excavating and interpreting them even more difficult. Does the lift rider knowingly know the underlying patterns, conventions and rules and resources of his/her actions, inactions, interactions and various social forms of association and exchange? These underlying patterns of *experiencing* might be described as invisible or absent from one's *knowing* presence but, nevertheless, perform "work" on human *being* and *doing*. Excavating and interpreting these submerged patterns helps formulate the questions we might then ask about the nature of human action and interaction as they becomes more visible in the constructed relations of the human experience of environments. For example, are there pre-reflective patterns connecting a kayaker's "lived experience" (of kayaking a rapid in a river) and the conditions of that phenomenon (his/her equipment, the river's morphology and its technical negotiation, the setting/environment and its navigation) that later on might be consciously interpreted as environmentally appropriate or problematic?

Some of the primary ontological concerns of critical, postphenomenological enquiry are discussed below. They include *ontologies of (enigmatic) time, (fluid/mobile) places and spaces, time-space compression,* and *(intensified) technics*. The list cannot be exhaustive. For example, the role of language is addressed only indirectly in elaborating the ontological signposts listed above and only highlights the way language is a best approximation of what we name as experience. Similarly, deserving of more attention is the role of capital, gender, and ethnicity in explaining the socially differentiated ways power operates in the everyday experiences of time-space compression (Bridge, 1997) and (environmental) identity seeking/manufacturing (Payne, 2000a). Apart from signposting how each "major" ontological category of "postmodern" time, space and their compression through technics might serve as

focal points for enquiry, the following discussion of each interrelated category serves other purposes. First, descriptive accounts of the yet to be differentiated notions of *lived experience* and *experience lived* are used to be more phenomenologically and ontologically "correct." Second, the use of different styles of representation demonstrates some alternative entry points into a phenomenological disposition.

Temporal Ontologies: Enigmas

A cursory review of environmental education curriculum, theory/philosophy, and evidential research findings demonstrates a lack of consideration given to the question of "time" in the "environmental experiences" those teachers of experience and researchers of it believe learners *should* be, or already *are*, having.

Yet, it is a commonsense that time is an essential ingredient of how we live, experience, and learn about the world and its everyday life. Time is taken for granted, least of all in the recognition that time is necessary for relations to occur and develop, including those with various others, as well as with the environment/nature and its places. What needs attention is the different ways in which time is experienced and how different senses of it potentially create and recreate various (embodied) relations. Time "lives" in the experiencing body in numerous ways, sometimes converging and sometimes diverging, according to what we are *doing*. For example, most of us can relate to a very different "feeling" created by wandering slowly past a rambling old house, through an earthy smelling, wooded park, or in a lively neighbourhood full of playful children after many years of driving (quickly) past the very same "spot" on the way to work at 8:15 each morning, "on the dot." But, as I drive by, eyes fixed on the road and traffic, listening and delighting, yet again, to that favourite "old" song from the 1970s whose lyrics, cadences and rhythms overwhelmed me (then) and engulf me (now), I am (re)minded of a long gone friend, a special place, an exhilarating situation, a cathartic experience.

The ways we think about time and practice *them* are enigmatic, as are the consequences for the way we re-embody and re-interpret (or re-act, perceive, and re-conceive) certain environmental relations through the experiences we construct and "live." Recently, my 15 year old daughter, Solana, and I trekked for 9 days at high altitude in the extremely remote, ice and glacier covered Cordillera Huayhuash in Peru. Times and timing were multiple for us. The timing of this trip was influenced by a combination of "long" service leave I was required to take from my work "place" and Solana's annually time"tabled" school vacation period. These mid-winter times (in Australia) coincided with the dry "seasonal time" of winter in the Andes, the "best" time to undertake such a remote and exposed walk. During the trek, our collective experience of time was restricted to starting at about 8:00 a.m. so as to cover in no more than 5-6 hours of "walking time" the extremely physically demanding 10-15 kilometres of distance (space) required in the 9 day

"plan." "Rest time" was whatever "daylight" time was left over at the "end" of the day after having set up the camp. "Meal time" was based on hunger and the extended "burning time" of the stove at oxygen depleted altitude while "bed time" was determined by the combination of impending darkness (about 6:00 p.m.) and freezing cold temperatures. "Wake up time" was usually determined by the need to relieve oneself after such an unusually "long" night's sleep. A "rest day" allowed us to not only soak up vistas of the spectacular snow covered peaks and aquamarine lakes but allowed us to observe an "elderly" *campesina* (peasant woman) tending her flock, hand spinning fleece, and collecting water from a nearby stream. Time for her was sunrise, eating, and sunset and the flow in-between where time might have been devoted to retrieving part of the flock. Apart from periodic exposure to trekkers for whom she (some"times") cooked *trucha* (trout, caught by her husband), her existence was "frozen" in historical, cultural time.

Back in the *everyday* world and multiples of times of Lima and Melbourne, despite the different "modes" of time socially constructed and "named" as six o'clock in the morning, represented spatially as moving "hands" on a "face" that "point" to a 12 and a 6, or presented as an electronic blip of 6:00, the "real" experience of these names and representations is entirely different. Time tends to lose its fluidity/mobility as it become more fixed, measured, authoritarian, and governing for surveillance. There can be no doubt that postmodern time is enigmatic given the different ways it has to be experienced in the world in which we live. And perplexing to both the experiencing subject and his/her researcher. Salvador Dali's famous surrealist "melting watch" imagery persists as one of the most potent visual "deconstructions" of the now materialized and measurable rigidities of time (and spaces and places).

Melucci's (1996) phenomenology of time—as cyclical, linear, and dot—is very useful in suggesting how contradictions might occur between:

- bodily time, place, and space
- social/cultural times, places and spaces, and
- globalized times and spaces.

He writes:

> We thus live all the patterns of time simultaneously; the recurring (historical) cycle of memory and project, the (modern) linear progression of the arrow as an intention and a goal, the exalted condensation of the (postmodern) point, or the experience of losing ourselves in disconnected fragments. (p. 12)

Melucci argues that "time dissonances" are at the heart of a number of new pathologies in everyday life, including the disruption of spatial relationships, the transformation of places, and the abstraction of spaces. Melucci believes the possibility of a "bodily pedagogy of existence" has unfortunately "given

way to a geography of the mind" that "sunders" the relationship of time and space with the experience of our bodies.

Again, these observations about time dissonances and pathologies are sobering. Most of us feel under pressure; we are "too busy"; there is a "famine" of time poverty. Little wonder that many relations are fleeting and itinerant. Time and its enigma in human experience also has to be a problem for the environmental educator and researcher, particularly for those who, in response to the questions posed in the Introduction about the lived and re-embodied nature of environmental relations might (re)consider how time is pedagogically deployed in environmental education practices. Some answers to that question might then invoke further reflection upon a potential educational need for a "reconciliation" of the multiple and enigmatic times lived between "inner" (experienced), "social" (constructed), and "outer" (external including globalizing) "natures."

Spatial Ontologies: Mobile Places and Fluid Spaces

In trying to explain to various audiences the hard-to-pin-down idea of a "social ontology," I use a role play for participants to "live," "experience," or bodily "scaffold" that difficult notion. Participants are given a few minutes to plan and "act out" what it is like to be a "lift rider." The "play" usually confirms what I have "ethnographically" observed over many years in various settings. There is a distinct pattern of human action, interaction, association, and exchange that *is* both the individual reconstitution and social construction of relationally *being* a "lift rider" and *doing* "lift riding."

After pressing the desired floor number button on the way in to the lift, the first player often goes to the back and faces the front, silently, listening to the piped music, eyes fixed on the floor or at the illuminated numbers changing above the door. Other players entering the lift, on its way up or down, "fill up" the back or side of the lift, often position themselves in the same bodily manner, with arms folded in front and feet shuffling, but with a tendency to maximize the space between each "lift rider." In most instances, mouth talk is finished, is hushed or kept to a minimum. Eye contact is seriously avoided or awkwardly conducted. Discomfort occurs when a body needs to move in or out, or reach across another body to press the button. Significantly, at a "globalizing" level, the individual and collective experience of lift riding does not vary a great deal in affluent western nations where lifts are common, as is the experience of them. Riding a lift is a fairly "conventional" experience of predictable, routinized behaviours that "live on" over time and place through the adherence of individuals and groups to certain invisible "rules" and "resources." As such, the phenomenology of lift riding is an interesting socio-ontological case study of "sociability" and "individualization" because of the ways in which embodied relations between players (and with the influential "otherness" of the lift) are reconstituted experientially.

Another major point I wish to make here is that the everyday experience of lift riding and its spatial-temporal-social relations are reconstituted in the "absence" of written rules or directions or explicit verbal instructions and negotiations. There is a convention for lift riding where, to a certain extent, the "rules" of embodied actions and social interaction are configured as a spatial pattern by the physical and material "resources" that are the actuality of the lift. Apart from the normal, "No more than xx people" or "No more than yy kilograms" there are no "texts" in the more literal sense for actors to follow in reconstituting the social ontology of the phenomena of lift riding. The point here is that a great deal of human action and interaction "escapes" talk and texts and cannot always be reduced to language and its games. Nor should human subjects, as agents, always be treated as mere effects or consequences of discourse, as is now fashionable in some academic quarters. The lift player's "text" was their own individual social experience, an unwritten script. A parallel point to be made about the importance of phenomenological enquiry is to concede that so many of our "other" (problematic and non-problematic) embodied, environmental relations are unknown and lie outside or below language, voice, texts, talk, and discourse. For example, near my office, on an outside walkway between two buildings, many smokers choose to grind their cigarette butts (n1 = 63) into the soil in one of the few decorative timber plant boxes (with two "struggling" rubber trees) available on campus rather than in the tray provided (n2 = 23, with n3 = 15 littering the surrounding concrete path).

The notion of NOT incorporating spatial ontologies (relative to time) into enquiry is environmental education becomes even more disturbing when age, gender, class, and cultural differences and their (socio-environmental) implications are considered. For the elderly *campesina* (female) in the Cordillera Huayhuash, Llamac (the nearest village) was a day's walk "that way" (finger pointing) down the river. For an *arriero* (male owner of donkey carrying trekkers' packs), maps are not required for route following/finding as their abstract two dimensional representation of the landscape is no substitute for lengthy, temporal experience of the same environment/place. For me, as the "experienced" trekker, "knowing" where I was (in the environment) often required reference to a detailed map whose two dimensional bird's eye representation of the topographical features of the "real" landscape were far too abstracted *from* Solana's novice "experience." She "followed," spatially, temporally, geographically, and socially.

Time/Space Collapse: Compression

The "compression" of enigmatic time, mobilized places, and fluid spaces in lived experience is evident in our "global" travel from Australia to South America to visit family and friends and walk in the mountains. Departure time of 09:35 on 14 June for the flight from Melbourne, Australia. "Local" arrival time of 23:55

on 14 June in Lima, Peru. Other "local" stops along the way included Auckland (New Zealand), Buenos Aires (Argentina), and Santiago (Chile). Distance travelled was about 15000 largely "irrelevant" kilometres whose "space" was "filled up" on a steady diet of electronic entertainment and modularized meals. Real or elapsed time of the "trip experienced" was approximately 32 hours; "world" time represented abstractly and experienced "vicariously" on the (paper) itinerary was 14 hours and 20 minutes including the "passing over" numerous time zones and the International Date Line. The return trip departed Lima on Saturday 13 July at 14:50, minus Buenos Aires, and arrived in Melbourne on Monday at 08:20. World time of 39 hours 30 minutes with Sunday disappeared, was absent, on the itinerary; "real time" of about 26 hours. Jet lag both ways while the "body clock" adapts; "culture shock" at both ends due to the "squeezing" together of vastly different peoples, places, spaces, ways of life, societies, seasons, geographies, and topographies.

Technics: Intensification

Technology is a constant in driving past a park, trekking in the Andes' "wilderness" replete with goretex jacket, freeze dried food, and geodesic tent, riding a lift and flying in a plane. The "penetration" of lived experience by technology is a common d(en)ominator in the ontologies of enigmatic time, mobile places, and fluid spaces and the intensifying collapse of time and space. That is, to variable extents technology is a major "player" in the structuring of how humans experience the "lifeworld" and is a reason why the idea of "re-embodied" is preferable to the use of "embodied" in connoting the (constant) processes of "embodiment" practices. Ihde (1990, p. 3) suggests the term ecosystem should be replaced with "technosystem" because it more accurately describes the texturing "cocoon" in which most of us now live, or "sleepwalk through" if we take seriously Winner's (1986) notion of "technological somnambulism." Importantly, for the critical disposition developed here, Winner's notion of the "politics of the artifact" resonates with Feenberg's (1991, p. 3) on the need to examine politically the ontologies of the design of various technologies, an important concern illustrated shortly in "case studying" the re-embodied environmental relations of two outdoor activities/"nature" experiences.

Given the dominant role of technology in structuring "how" we live in the *everyday* and *in relation* to various environments, a series of propositions about the *technics* of human experience are offered below. In moving from *descriptive* interpretations of walking, trekking, lift riding, and flying to outlining an *analytical* set of propositions that assist the task of questioning technology's contribution to the nature of embodied relations, my aim is to invite the reader to enquire into those phenomena that are part of her/his own teaching/research. These propositions include:

- Technologies are, invariably, the consequences and products of human resourcefulness and invention.
- Technologies are non-neutral instruments, or tools, that act on users and the world.
- Tools have specific design functions and, over time, place and space, specific re-design attributes that have been determined according to a combination of practical demands, prevailing conditions, and particular historical problems. These design outcomes, characteristics, and capabilities "shape" a purpose, normative intentionality or calculative rationality in ordering or predisposing certain bodily actions, perceptions, consciousness, conceptions, and social interactions that culminate in certain modes and styles of human-human, human-environment, and culture-nature relations. In pre-emptively "ordering" human (self)-understanding, individual action, and social interaction, and cultural meaning making the actual use of (higher) technologies powerfully transforms the experiences of time and reduces and/or extends the experiences of places and spaces.
- Technologies, therefore, mediate any authenticity or naturalness alleged of the human body, its experience and its various "relational" manifestations with others.
- Technologies extend or contract the acting and interacting human body as a cultural instrument in the lifeworld.
- Technologies act to reduce or magnify sensory/perceptual experience of the lifeworld or affordances of the socio/cultural-environment according to relative degrees of the tool's "withdrawal," "ambivalence," and "ambiguity" in time, place, and space.
- Technologies transform and re-naturalize "inner," "social," and "outer" natures by constantly "correcting," "intensifying," and "individualizing" human experience, social existence, and their externalized socio-environmental manifestations and consequences.

In total, technologies simultaneously construct the lifeworld and mediate the embodied (and discursive) human experiences of that world. They are a non-neutral form of human/bodily, social, cultural, and ecological capital.

Phenomenological Enquiry: Deconstruction and Reconstruction

To illustrate the possibilities for critical postphenomenology, a simplified frame called a *form of experience* is useful in portraying how the activity basis of experience can be examined to see how it constructs human and environmental relations.[3] The components of a *form of experience* include the *body*, in *activity types*, with *participatory styles*, or performances, as configured by the physical-material setting through which *historical subjects* "live" (Payne, 2000b). Hence, a conceptual frame for excavating and interpreting human

experience is depicted below, noting the concepts are interconnected and there are limitations in representing their "wholeness" in two dimensions.

PHENOMENOLOGY
(of a form of experience)

Component	Re-embodied	Activity Type	Participatory Style	Configuration	Historical Subject

ONTOLOGY
(of experience lived)

Dimensions	Time	Place/Space	Time-Space	Technics
Characteristics	*Enigmatic*	*Mobile/Fluid*	*Compressed*	*Intensified*

Phenomenological/ontological interpretations of the kayaking *form* of "significant outdoor activity" and the (insignificant, educationally "invisible") *form* of a tyre tubing experience are (textually) contrasted. Most importantly, I highlight the different (re)"embodied relations" in the different forms of the human experiencing of his/her environment. I then extend those interpretations critically in the direction of the likely human-environment/nature consequences of each *form of experience*.[4]

> A kayak is also an instrument, a tool designed and manufactured to bring-forth certain human actions and reveal human experience-as-travel, journeying, or playing in a particular type of water in the pre-specified settings of rivers. A kayak is like a cocoon. Its yarn, or texturing, is fibreglass or, more recently, (almost unbreakable) plastic. The cocoon is completed by a neoprene spray deck whose sole purpose is to prevent water-entering-the-cockpit in which the paddler is seated, thus minimizing its flooding and stopping. The paddler's body is also textured by a wet suit, whose function is to warm-up-a-film-of-water gradually soaked onto-the-flesh, or more recently a dry suit that preserves the dryness-of-clothes-and-skin. Either way, the textured layerings of the paddler's body and flesh limits the effect of the coldness of water, thus conserving body heat and comfort and regulating emotional security and health.
>
> The purpose of the kayak instrument is for its user, or experiencer, to operate phys-

ically on the water and the river. Spatially, kayaks and their artefactual means of propulsion are designed in such a way that the paddler's body, perceptual (visual, auditory) field of reference, and range of physical movements are inclined predominantly forward and "down." The field of visual and physical reference is highly selective according to the linearity of the kayak's design to move down-the-river. That is, the arrow like linearity of the tool and its cockpit/seating position for the body align the paddler in forward position above-the-water and in motion down-the-river. In playing-on-water or passing-by-water, vision is typically but momentarily fixated on stoppers and eddies or rocks, rapids and snags. These perceptions may invite, or demand, the paddler to perform certain skills at certain times during the time it takes to progress down-the-river.

Each tool in the kayaking experience serves different purposes and specific functions that combine in moving-on and down-the-river. For example, while the paddler's body is physically enveloped in the kayak, hands hold a paddle. Its length extends the range of motion of the arms/hands and increases the power

The of the

floater's body is balanced (precariously) anywhere on the tube, probably facing its centre. Temporally, according to "river time," the tube will meander lazily and rotate arbitrarily on the water according to the whims of breezes, its flow, and various other subtexts of river morphology. Spatially, the floater will be carried-along rotationally and physically face the "front," "rear" and "side" of the river and its proximal environments, feel and perceive its viscosity and warmth/coldness. The tube's aberrant, chaotic conduct highlights the "flow" of different currents, eddies, whorls, riffles, pooling, and so on. Smooth beds mean few eddies; rough beds mean travel becomes even more random and chaotic. River floaters would be highly aware of the tube and their inability to control the "inability" of the tube to order-a-route for them in even the slightest of current. Any attempt by the floater to negotiate a route-past-rocks would have to be discarded because of the spontaneity of the circular rotation of the tube, now an "amplified" characteristic of the tube and its human experience.

> blade's catch in-the-water. The configuration of the double blades provides for a rotational constancy of arm/hand/blade-in-water. When combined with the size of each blade, the greater catch of water and powers of propulsion accelerates the speed of travel over the flow of water and, even, against it.[5]

Floating down a river on a tyre tube provides for a very different reading of how experience and embodied relations with the environment are constructed and structured in the relative absence of tools like a kayak and paddle.

Tyre tube floating is a rarely used activity and experience in outdoor/environmental education. Kayaking is often used, at least in Australia where, for example, proponents of "critical outdoor education" are now voicing morally and ethically "significant" claims about the experience, such as "caring" for nature (Thomas & Thomas, 2000). At this point, readers can make their own judgements about the relative (human and/or environmental) significance and consequences of how the two activity-based forms of experience construct "self" and "nature" and the relations that exist in-between and over time, place, and space.

Herein lies the de and reconstructive possibilities of phenomenological/ontological enquiry in (environmental) education. If one (say, a teacher of experience) were pedagogically constructing and then (strongly) claiming a "nature ethic" in or through the significant "outdoor/wilderness" activity/phenomena of kayaking, the (ontological) critic might argue that the fullest repertoire of human and environmental qualities are subjugated to the specific "design" intentions and skill requirements of the kayaking technologies/tools in-themselves. On the other hand, it might be argued that the use of technologies actually enhance environmental understandings and relations. For example, the skillful use of a kayak might require a keener understanding of reading particular river/water dynamics. The counter argument is that "nature" perceived and constructed in such an instrumental and performative manner suffers from reductionism—a chronic concern in most discourses about environmental ethics/politics. The "politics of the (kayaking)

artefacts" (Winner, 1986) are, I hope, clearer to see. If so, strong ethical claims, as part of the outdoor/environmental education "experience" or as a finding about its "significant" capabilities, require greater degrees of modesty. Thus, in view of ongoing discussion in environmental education research (Chawla, 2001; S. Gough, 1999), Significant Life Experience finding categories like "outdoor activities" require detailed postphenomenological investigation such as that undertaken above to reveal what is actually experienced by human actors and believed (conceived, constructed) to be environmentally significant about the outdoor activity or other categories like family, pet, and so on.

Moreover, when the contextualizing insights of the agency-structure duality and holism of micro-macro sociological understandings are considered, there are numerous socio-ecological costs and demands. The purchasing of kayaks and paddles, actual travel or "escape" (Beck, 1995) to remote but socially constructed "wild/wilderness" venues (Cronon, 1995) and the manufacturing and distribution processes of the outdoor "industry" cannot be "wished away" in assessing the claims of an environmental ethic or ecopolitic. If so, why does the activity of kayaking persist in outdoor/environmental education when more environmentally "correct" activities or "ethical" experiences like river floating are available (Payne, 2002).

Phenomenological "Subjectivism" and Ontological "Objectivism": Toward a Critical Phenomenology

Kayaking will persist in outdoor/environmental education because most of its experiencers and "teachers of meta-experience" (Bauman, 1997) will uncritically "voice" the activity's benefits. Undoubtedly, when kayaking is compared with indoor/classroom activities in which an education *about* the environment often occurs, there are (potentially) numerous benefits of experiencing "wild" rivers in kayaks. Nonetheless, the "strong" argument voicing the (environmentally ethical) benefits of kayaking is a relative argument only upon which the legitimacy of kayaking as an experiential form of outdoor/environmental education rests.

But, what specifically is the link between kayaking *in itself* and rhetorical claims made *for* the "environment" or on behalf of "wilderness/nature"? Does a cause (activity) and effect (outcome) exist, or is the ethical/educative claim a mere discursive construction or rhetorical device? To be sure, very few kayakers, or teachers of kayaking, will critically narrate the kayaking form of "environmental experience," be it an account of the design function/politic of the kayak "tool," or an analysis of its techno-embodiment as a form of human experience. By and large, very few kayakers will tell a story about the technological normalization of the environment, or nature, they experience via kayaking. If so, the claim for an environmental ethic, and education for it, rests problematically on (discursively) "sustaining" a culture-nature dual-

ism, or "non-relation" of kayaker and environment where what "connects" the two in experience is (selectively) forgotten. Moreover, few of those kayaking voices will, following Bauman, examine the interests of the teacher of experience through which the dominant social construction of the activity is actively reproduced.

On these cautionary notes about the reproductive potential of kayakers and teachers of the kayaking experience (and researchers of it) to privilege subjectivity via discursive and social constructions of *lived experience*, there are some immediate challenges, dilemmas, and predicaments that postphenomenological enquiry throws out for further deliberation. Three only are mentioned.

- Postphenomenological enquiry is potentially subversive.
- Phenomenological enquiry can lapse into another positive form of reductionism.
- Postphenomenological enquiry of a subversive type tests our assumptions of where the "critical" researcher "enters" into "knowing the subject."

(i) Postphenomenological enquiries of the ontological type I am exploring here will, in one form or another, seek *interpretations* of human agency, action, and interaction within their manifestation as environmental "relations" and consequences. These interpretive enquiries may incorporate the discursive/communicative abilities of actors but will not bestow a level of authority on subjectivity that reduces human experience simply to the level of voice or talk only. Thus, the focussing of enquiry on the relational nature of the praxical body and its experience of the environment immediately confronts, and challenges those dominant modes of research in environmental education that more often than not decontextually privilege the disembodied mind while acting to limit the consideration given to the material components of the subject's "real" lifeworld. "Traditional" studies of knowledge, beliefs, attitudes, and values, and more recent examinations of texts and discourses and stories/personal narratives that valorize experience are useful. But, much of that privileged "mindset" can be gleaned through carefully developed interpretive programs of the type I am recommending.

Many studies in environmental education find it difficult to incorporate *con*text, least of all situationally-relevant accounts of embodied human agency/action and its time/place/space antecedents and consequences, into the texts about knowledge acquisition, attitudinal change, and/or values clarification that dominant line of mindset enquiry produces and *re*presents, often only in relation to its alleged intervening and *causal* variables.

(ii) Second, interpretive approaches to enquiry like phenomenology can also slide into a form of reductionism. This trap occurs when the phenomena enquired into or circumstance represented by the researcher does not fully capture the experience as it was lived and is embodied, perhaps pre-con-

sciously, pre-reflexively and pre-discursively. This point is illustrated above where the environmental "outcomes" for a subject's positioning in tyre tubing and kayaking are quite different. Yet the strong subjective voice (of paddlers, of teachers, of researchers) "lives on," often in those "meta-experiential" forms of "transcendental" and "aesthetic" individualism whose romantic, therapeutic and ahistorical impulse is of concern to numerous commentators (for example, Hay, 2002; Rose, 1996). The "pro" discourse about an "outdoor activity" will persist, in all likelihood, until an ontology of kayaking is (objectively) constructed and contrasted with, for example, the ontology of tyre tube floating.

Subjectivity, therefore, has to be treated with caution in interpretive enquiry, least of all because hearing from children, teachers and various other "experiencers" is now accepted in environmental education research (Hart & Nolan, 1999; Rickinson, 2001). However, more earnest deliberation is required about the limits of voice and the conditional nature of subjectivity according to the experiencing subject's bodily positioning in particular situations, episodes and contexts. Fortunately, educational researchers using narrative methods have already addressed the question of to what extent (unbridled/decontextualized) subjectivity should be privileged in enquiry and what level of empathy, sympathy or silence should be given to the subject by the enquirer (Barone, 1995; Convery, 1999; Goodson, 1995; Larson, 1997; Moore & Muller, 1999). Similarly, "nature writing" is fast becoming another highly subjective form of representing and (usually) endorsing personal experiences of the (romantic, profound) environment. Bowerbank's (1999) critique of this literary genre is useful in identifying some of the issues surrounding the postmodern license given to the authority of subjectivity.

The message here is that the old debate about subjectivism and objectivism carried on by qualitative and quantitative researchers demands revisiting within the qualititative "tradition" in critically developing those emerging genres of interpretive enquiry, such as phenomenology and postphenomenology. Merely rehearsing that debate as yet another contest between two polar points would immediately negate the more pressing question of where does the enquirer "sit" on the continuum between subjectivity and objectivity in providing interpretations of human agency, its contexts of action and interaction and lifeworld consequences.

(iii) To bring this question into sharper relief, a return to Robottom and Hart's (1993) probing of the politics of research is useful. They raise many important issues and questions but not the one I (briefly) pursue here in identifying a tension that exists between subjectivity and objectivity in postphenomenological enquiry. Generally speaking, the resolution of a researchable question, problem, or testing of a hypothesis demands the selection of the "best" or most (politically) appropriate and astute method(ology). But, in subsequently deploying a research strategy, there appears to be less

deliberation about the most suitable entry point into "getting to know" the subject, be it the subject's ontology (the "nature" of her/his/our being/doing in the world) or epistemology (the subject's coming to know about . . .). Undoubtedly, each is intimately intertwined in the other, but researchers with a certain disposition (to the subject/object of enquiry) may wish to consider what entry point they are pursuing and prioritising in the "knowing (of) the subject." This choice of the most suitable entry point into the subject probably comes down to the extent of the "critical" disposition of the researcher. For example, enquiry into "lived experience" probably privileges and valorizes subjectivity while enquiry into "experience lived" provides the researcher with an additional layer of detachment about that subjectivity, an "objective" tempering of the possibility of unbridled or decontexualized subjectivity.

So what is this different vantage point that the emerging genre of (post)phenomenological enquiry presents to the politics of research in environmental education? My best guess, at this "unfolding" stage of the field's endeavours (S. Gough, 1999; Hart & Nolan, 1999; Rickinson, 2001) is that the majority of studies deal primarily with epistemological concerns such as what subjects rationally think, learn, write about, and react to in environmental education practices that are usually contrived in schools. Far fewer studies elect the ontological entry point, where enquiries focus on what historical subjects actually *do* or *be* in the environment, particularly the everyday one. Thus, for purposes of further deliberation the somewhat artificial delineation of enquiry into *lived experience* tends toward the epistemological starting point while enquiry into *experienced lived* highlights the ontological interest. That is, phenomenological enquiries into *lived experience* lean to reasoned interpretations of subjectivity, give voice to that which is situated in circumstance, are descriptive and as a textual "finding" aim to evocatively move the reader and "critically" invoke an empathic sensibility in the reader to the subject's situation. Enquiries into *experience lived* lean to interpretations of agency in human action where the subjectivity of voice is tempered (objectively) by the excavation of the sedimented conditions of embodied existence, are descriptive and explanatory, and aim to provocatively "reveal" to the reader a critical disposition of the researcher to the structuring and embodiment of the subject's experience of the circumstance's context.

Phenomenological approaches to enquiry about human everyday experiences permit us to know the subject/experiencer in ways that previously have not really been possible. We are able to know the subject more intimately. We can also begin to know about the relations those experiencers knowingly and unknowingly reconstitute with others, including the environment. If this is the case, and environmental education has an interest in constructing then questioning the type of relations a subject lives with his/her environments, then there is an imperative for research to excavate and interpret the nature of those embodied and lived relations. It is timely to reconsider what research can do for environmental education. On this listing of some major

challenges, dilemmas, and predicaments raised by the possibilities in enquiry for a *critical phenomenology/ontology*, the reflective reader is invited to self-consciously revisit the ontological *question* of his/her *lived experience* and *experience lived* of *being* an environmental education researcher or teacher. Perhaps, first and foremost for this audience, the *question of being-a-researcher* needs answering before methodological choices are made in *doing* research about the most appropriate starting points needed for entering into and enquiring about "other" subject's experiences.

Notes

1 Scare marks must be introduced to highlight the ambiguity of important terms whose discursive, historical, social, and cultural constructions should not be seen as fixed.

2 In general, on one "methodological" hand, Giddens' (1984) notion of a duality of structure and agency in his "structuration theory" demands a "double hermeneutic" for enquiry so as to "get at" the underlying patterns, conventions and rules and resources of human action and social interaction. His social ontology calls for interpretations of human agency. Ihde's (1993) non-foundational postphenomenology concedes the need to interpret the technologically mediated transformations of human experience and the related tendency to the abstraction of human praxis. Ihde stresses the need for enquiry into human praxis where he confesses to being less worried "about the loss of subjects or authors, than I do about not being bodies or perceivers" (p. 7). His (1990) program for postphenomenology stretches over three interconnected micro and macro stages of interpretation, namely the embodiment of human-technology relations in the postmodern lifeworld, technology as a cultural instrument, and the issue of pluricultures. Dewey's notion of the reconstruction of organism-environment interactions as "experience" and "growth" provides a useful connection to the focus on the human experiences of embodied relations pursued here. On the other "conceptual" hand, the recent discourses and debates about the social construction of the self (Cote, 1996; Gergen, 1991; Rose, 1996) and the social construction of nature (Cronon, 1995; Darier, 1999; Hay, 2002; Soper, 1995; Soule & Lease, 1995) provide important understandings that help demystify the non-foundational, or fluid, nature of the relational "thing" experienced contingently between a self and his/her environment.

3 There are detailed conceptual and methodological formulations for the time-place-space analysis of human action, identity, and social interaction (Bridge, 1997; Crow, 1996; Giddens, 1984).

4 This kayaking "text" was written (iteratively) with the assistance of three experienced kayakers, two male and one female.

5 Following Ihde (1993), the same point about technology's capacity to "order"

certain human-environment relations can experientially be made now in doing a "phenomenology of the page." In the kayaking interpretation just read, the use of (techno)font, bigger indents, and hyphenated words will "draw" the reader into a (slightly) different relation with the page, its reading and, possibly, interpretation of the text. One possibility is that the reader engages differently (visually, emotionally, rationally) with the text construction; another is for the reader to now "see" the previously marginalized space of the appropriately named margins, and so on, giving a different sense experience, perception, and interpretation of the (place) of the page in its reading.

Notes on Contributor

Phillip Payne is a Senior Lecturer in the Institute for Education at La Trobe University, Bendigo. He is currently studying the everyday environmental behaviours of families where he has a particular interest in parenting strategies and other intergenerational influences.

References

Barone, T. (1995). Persuasive writings, vigilant readings and reconstructed characters: The paradox of trust in educational storysharing. *Qualitative Studies in Education*, *8*(1), 63-74.

Bauman, Z. (1997). *Postmodernity and its discontents*. Oxford: Blackwell.

Beck, U. (1995). *Ecological politics in an age of risk*. Cambridge: Polity Press.

Bowerbank, S. (1999). Nature writing as self-technology. In E. Darier (Ed.), *Discourses of the environment* (pp. 163-178). Oxford: Blackwell.

Bridge, G. (1997). Mapping the terrain of time-space compression: Power networks in everyday life. *Environment and Planning D: Society and Space*, *15*, 611-626.

Chawla, L. (2001). Significant life experiences revisited once again: Response to Vol. 5(4) "Five critical commentaries on significant life experience research in environmental education." *Environmental Education Research*, *7*(3), 451-462.

Convery, A. (1999). Listening to teachers' voices: Are we sitting too comfortably? *Qualitative Studies in Education*, *12*(2), 131-146.

Cote, J. (1996). Sociological perspectives on identity formation: The culture-identity link and identity capital. *Journal of Adolescence*, *19*, 417-428.

Cronon. W. (Ed.). (1995). *Uncommon ground: Rethinking the human place in nature*. New York: W.W. Norton.

Crow, D. (Ed.). (1996). *Geography and identity: Living and exploring geopolitics of identity*. Washington: Maisonneuve Press.

Darier, E. (Ed.). (1999). *Discourses of the environment*. Oxford: Blackwell.

Dewey, J. (1938/1988). Experience and Education. In J.A. Boydston (Ed.), *John Dewey, Volume*

13: 1938-1939 (pp. 1-61). Carbondale: Southern Illinois University Press.
Feenberg, A. (1991). *Critical theory of technology*. New York: Oxford University Press.
Gergen, K. (1991). *The saturated self: Dilemmas of identity in contemporary life*. Place unknown: Basic Books.
Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration*. Cambridge: Polity Press.
Goodson, I. (1995). The story so far: Personal knowledge and the political. *Qualitative Studies in Education*, *8*(1), 89-98.
Gough, S. (1999). Significant life experiences (SLE) research: A view from somewhere. *Environmental Education Research*, *5*(4), 353-363.
Hart, P. & Nolan, K. (1999). A critical analysis of research in environmental education. *Studies in Science Education*, *34*, 1-69.
Hay, P. (2002). *Main currents in western environmental thought*. Sydney: University of New South Wales Press.
Heidegger, M. (1962). *Being and time*. San Francisco: Harper.
Heidegger, M. (1977). *Basic writings*. San Francisco: Harper.
Ihde, D. (1990). *Technology and the lifeworld: From garden to earth*. Bloomington: Indiana University Press.
Ihde, D. (1993). *Postphenomenology: Essays in the postmodern context*. Evanston: Northwestern University Press.

Larson, C. (1997). Re-presenting the subject: Problems in personal narrative inquiry. *Qualitative Studies in Education*, *10*(4), 455-470.
Melucci, A. (1996). *The playing self: Person and meaning in the planetary society*. Cambridge: Cambridge University Press.
Merleau-Ponty, M. (1962). *Phenomenology of perception*. London: Routledge.
Moore, R. & Muller, J. (1999). The discourse of "voice" and the problem of knowledge and identity in the sociology of education. *British Journal of Sociology of Education*, *20*(2), 189-206.
Payne, P. (1997). Embodiment and environmental education. *Environmental Education Research*, *3*(2), 133-153.
Payne, P. (1999). The significance of experience in SLE research. *Environmental Education Research*, *5*(4), 365-381.
Payne, P. (2000a). Identity and environmental education. *Environmental Education Research*, *7*(1), 67-88.
Payne, P. (2000b). Embodiment and action competence. In B. Jensen, K. Schnack, & V. Simovska (Eds.), *Critical environmental and health education: Research issues and challenges* (pp. 185-208). Coenhagen: The Danish University of Education.
Payne, P. (2002). On the construction, deconstruction and reconstruction of experience in critical outdoor education. *Australian Journal of Outdoor Education*, *6*(2), 4-21.
Rickinson, M. (2001). Learners and learning in environmental education: A critical review of the evidence. *Environmental Education Research*, *7*(3), 207-320.
Robottom, I. & Hart, P. (1993). *Research in environmental education*. Geelong: Deakin University Press.

Rose, N. (1996). *Inventing our selves: Psychology, power, and personhood*. Cambridge, Cambridge University Press.

Schutz, A. (1932/1967). *The phenomenology of the social world*. Evanston, Ill.: Northwestern University Press.

Soper, K. (1995). *What is nature?* London: Blackwell.

Soule, M. & Lease, G. (Eds.). (1995). *Reinventing nature: Responses to postmodern deconstruction*. Washington: Island Press.

Thomas, G., & Thomas, J. (2000). Moving water paddling as critical outdoor education. *Australian Journal of Outdoor Education*, *5*(1), 47-54. ß

Usher, R. & Edwards, R. (1994). *Postmodernism and education*. London: Routledge.

Winner, L. (1986). T*he whale and the reactor: A search for limits in an age of high technology*. Chicago: The University of Chicago Press.