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## *The Significance of Experience in SLE Research*

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**SUMMARY** *'Experience' is at the root of individual, socio-environmental existence. Inquiries into its more 'significant' moments and episodes have arrived at a potentially important body of knowledge in environmental education. However, in the absence of parallel research efforts that demonstrate how the findings of those inquiries translate into contextually sensitive and socially useful educational practices, this discussion returns conceptually to questions posed by Louise Chawla about 'inner nature' and how significance of experience is socially constructed. To that future research agenda, I add the further question of how those constructions of 'significance' must be seen in relation to dominant social constructions of the 'environment/nature', sensitivity and activism. This begs the further question, exacerbated somewhat by the above lack of a connection with existing educational practices, of how teachers' and learners' thoughts and actions might also need to be examined in relation to dominant conceptions of the environment/nature and constructions of environmental education. Consequently, by focusing on the 'continuity of experience', this response to issues raised primarily by Chawla about inner nature and other assertions by Tanner about the 'right subjects' also addresses broader tensions in environmental education. Significant life experiences (SLE) researchers should continue to refine their understandings of the ontological significance of the central category of human 'experience'.*

### **Introduction and Conclusion**

Support for the ongoing project of Significant life experiences (SLE) research initiated by Thomas Tanner two decades ago is warranted. The findings of the numerous studies about the relationships of experiences, environmental sensitivity and environmental activism shed ongoing, often consistent light on how teachers of environmental education might go about their curriculum and pedagogical work. For researchers, as Louise Chawla (1998b) notes, there is ample evidence that the methods used have become more sophisticated. Chawla concedes there is further scope for more diverse and comparative foci and

enhanced sampling and data treatment procedures. Chawla's optimism should be shared, while Thomas Tanner's (1998b) persistent concerns about 'choosing the right subject' remain provocative!

But critical engagement with the SLE project is also warranted here because any largely self-referential body of work/knowledge/literature, as SLE is, should be treated with some caution. So should its potential application, or uptake by teachers, students, and researchers. Many of those stakeholders have different aspirations in environmental education and operate in different cultural and historical contexts, educational settings and socio-economic/political circumstances—a point conceded as only partially grappled with to date by those researchers interested in what cross-cultural studies might reveal (Palmer *et al.*, 1998b, p. 446).

And here, already in conclusion, lies the biggest gap in the SLE literature. There is no mention of how these SLE research findings might 'translate' into culturally sensitive and contextually specific curriculum and pedagogical practices. Nor is there any mention of the problems and issues that might be encountered along the way. Indeed, in developing her model for teaching and learning in environmental education, Joy Palmer (1998, pp. 267–279) seems to cast formative influences and significant experiences in the minimalist role of knowledge that might be brought 'to their further learning'. This is ambiguous, to say the least. If two decades of SLE research have been predicated on the need for findings that directly inform the way educators (presumably at the chalk-face) 'produce' (Tanner, 1980, p. 20), 'shape' (Tanner, 1998a, p. 365), 'foster' (Tanner, 1998b, p. 399) or 'inspire' (Palmer *et al.*, 1998a, p. 430) an 'active and informed citizenry', or even the 'lesser' of environmental sensitivity, then related research efforts are required, urgently, to tackle at least two pressing questions.

First, how have all/some of the findings of SLE research been implemented through professional development exercises? Or, how have the findings been 'taken up' at the chalk-face of teaching and learning, or within pro-environmental agencies/organizations? I would also want to know what opportunities and constraints occur in the practical translation and programming of those significant experiences. Second, in the absence of answers to such tricky questions, what 'audits' of current curriculum, pedagogical or membership practices have been conducted which show how teachers or members might knowingly or unknowingly be already 'using' certain SLE findings? Answers to these questions will confirm, elaborate or disconfirm the social (and environmental) utility of the emergent SLE body of knowledge! Answers might also help point to the feasibility of future curriculum planning, development and implementation.

Beyond these pragmatic concerns, I focus on two major issues which I believe are worth further consideration in the conceptualization of SLE inquiries. The first deals with the 'continuity of experiences' in which significance might be better understood and explained. The second, closely related to the first, probes the continuities between 'inner' and 'outer' natures within the proposed continuity of experience. Along the way, a number of related observations are offered.

These are:

- the need for additional critical detail and balance in finding categories;
- supplementing current understandings by drawing selectively from other fields;

- the significance of elaborating the ontological contexts of experience;
- the importance of problematizing terms like experience, environment, significance and activism;
- the value of broadening, democratizing and culturally sensitizing the meanings of what it is to be a political actor, or activist, or the 'right' subject of inquiries;
- the risks of contriving 'experience' and, hence, environmental education; and
- the importance of grappling with different understandings of how 'inner nature' can be framed for future inquiries.

### Towards an Ontology of Experience: framing a response to SLE

The constructive task of this commentary is, therefore, to critically advance future conceptions of SLE inquiries, as it might develop from what is given in the *Environmental Education Research* (EER) special issue and other major contributions (Palmer, 1998). Robottom and Hart's (1993) 'engaging the (research) debate' is one 'safe' starting point for acknowledging that all research, curriculum and pedagogical endeavours have 'something to say', or represent. Research, and teaching, says something about metaphysics. But for the purposes here of the focus of SLE research on 'significant experience, I will substitute metaphysics for ontology. Ontology signifies the human nature or constructions of reality, often through 'direct' experiences like those 'categories' that make up the findings of the SLE body of knowledge. Teaching and research also deal with important questions about epistemology, or theory of knowledge, where what is 'the nature of knowledge' might be asked and answered by 'ways of knowing'. And finally, research, even teacher and learner 'reflections' or inquiries, must deal with questions about methodology/logic. How is 'knowledge' developed, explained, represented and presented?

Furthermore, each of these 'great questions' about 'knowledge of' or 'knowing reality' rests on certain assumptions, standards or expectations about knowledge consistency, coherence and adequacy (or their opposites). Hence the knowledge 'paradigms' of positivism, postpositivism, social-criticism and constructivism (Guba, 1990; Robottom & Hart, 1993). Each paradigm respectively asserts 'truth claims' about the 'correctness' of its knowledge about the subject matter under inquiry and the logic of arriving at it. These truth claims relate to further claims about the 'goodness' of a body of knowledge, where goodness implies the 'rule' or norm establishing quality and capacity of that knowledge to prescribe, describe or regulate certain consequences or implications, even recommendations for, in this instance, possible educational practices and future research activities.

So, to fully understand 'experience', let alone what is and is not 'significant', depends upon an understanding of ontology, epistemology and methodology. This understanding is a 'given' of educational research. Plainly, the application of such a comprehensive framework to assessing a body of literature would be both crude and cumbersome. It would also limit analysis of that knowledge to a series of generalizations or relatively abstract, decontextualized propositions or criticisms. If so, at risk are many of the sharper, more precise questions that a response like this should invite SLE researchers to grapple with and answer if stronger signposts for 'good' culturally and contextually sensitive curriculum

and pedagogical practices are to be developed (and researched). Here, I will focus on some aspects of ontology, knowing that my fellow reviewers deal more emphatically with epistemological, methodological and ethical issues. But before I launch into some questions about the ontological 'continuity' of experience and how it informs Chawla's call for better understandings of 'inner nature', I need to briefly address the problem of current findings being too general to be of significant value for possible curriculum and pedagogical development in the future. This all too brief mention of the way findings are arrived at helps set up the ensuing discussion of the 'continuity' of experience and recommendations into its research strategies.

A good example is the category of 'outdoor/nature experiences'. At the moment, this finding is far too general and needs sharper characterization (as suggested by Tanner, 1998c, p. 420) and categorization (Chawla, 1998b, p. 391). Entire studies/essays could be devoted to interpreting, analysing, assessing and critiquing the various types of outdoor/nature experiences available to children, teachers and learners. Some outdoor experiences may, in fact, be detrimental to the environment and create considerable anxiety for leaders and participants. Unemployed, 'at risk' youth 'forced' to participate in landcare projects may have little interest in this type of experience, as 'significant' as it might be for many other reasons that have little to do with the environment. Young city children may fear or dislike their first or last wilderness experience. In addition, on face value of the finding, what are the environmental and educational consequences of having *en masse* nature experiences? If these scenarios are the possible case, additional details are needed in the SLE literature about how and why participants attach certain experiential values to particular outdoor experiences and how, in turn, these personal/participatory values can or should have educational legitimacy attached to them as a normative and regulative claim and recipe for 'other' and 'all' learners. Furthermore, despite some useful gains furnished by richer, qualitative research methods, there are no really detailed accounts or 'edifying' descriptions in the SLE body of knowledge about the characteristics, qualities and influential offerings of the other finding categories of significant teacher, parent, friend, play site, book and so on. Invariably, the context surrounding the category/finding gets 'lost'.

Addressing these concerns points to the need for more research to be completed in environmental education. Or does it? To deal with the above 'lacks', SLE researchers might also draw on the findings and debates from other fields where research energies have specifically targeted this fine-grained detail. Part of the problem of SLE research is that it refers to itself and needs to 'break out' of its own history. For example, Chawla (1998b, p. 387) nicely demonstrates how the particular methodological treatments of autobiographical memory used in life span studies can enhance research methods in SLE. However, the fallibility of autobiographical memory she alerts us to may have a great deal to do with a lack of related concern about ontological and epistemological matters, where past 'realities' have become distorted, and subsequently raise a host of methodological issues for the researcher. Hence, Chawla's important recommendation for ongoing longitudinal studies that use 'grounded' and narrative-based forms of inquiry (amongst others) is an important advance. So too are some of the richer, better described accounts of certain SLE research findings (for example, Palmer *et al.*, 1998b, p. 446).

In sum, the depths of significant experiences are being plumbed somewhat. Environmental educators and SLE researchers are showing signs of drawing more selectively and effectively from related fields of study so as to supplement their inquiries, substantively, procedurally and normatively. If choosing to remain closed to this important option, there is a risk that the 'bigger picture' of the role and value of SLE to environmental education will remain self-referential and partial.

### SLE as a Deviant Ontology

Deviant might seem an unkind term, but it is offered in a positive sense because SLE research, in my view, is one of the few areas in environmental education where ontological considerations have not been marginalized by the 'authority' in teaching/learning of the search for the 'best' epistemology or hegemony in research of the 'best' method. The concept of 'experience' is fundamentally central to SLE research. SLE researchers must not lose sight of its 'rootedness' and, therefore, ontological significance to their inquiries [1]. Ontological considerations, or the revealing and disclosure of the underlying 'structuring' patterns of human experience, help place 'significance' in the context of how individuals are 'positioned'. The more recent interest in context, positioning and 'situatedness' is ontologically promising. Hence, the 'deviance' of SLE research efforts over the past 20 years because this research endeavour aims to retrospectively 'dig out' events, situations, episodes and other formative experiences that have structured or potentially shaped a respondent's activism or sensitivity. Despite the best efforts of John Dewey and other educational pragmatists, the neglect in educational research of what it is to be a historical human 'experiencer' is, I think, and it is worth repeating, due largely to the understandable 'search' by teachers for the 'best' teaching and learning (usually emphasizing epistemological questions, issues, strategies, thinking) and researchers for the best method [2]. Underestimated in this search is the complexity of human experience where, and perhaps more worrying, after findings are reported, human learning and growth is supposed to conform with or be reduced to one of the paradigmatic starting points of that knowledge production.

So, in a quest to further 'mainstream' ontological considerations in SLE research, partially addressed by the cohort of SLE researchers, the following discussion focuses on questions about how 'experience' and its 'grounds-up' inductive logic in research (as distinct from 'trickle down' theory) can more productively be 'used'. Consistent with this logic, the following commentary relates directly and selectively to the expressed concerns and 'experiences' of the various researchers contributing to the special edition on SLE. Some questions I wish to pose to SLE researchers about the conception, construction or deployment of 'experience' and consideration of its ontological 'roots' in SLE research include the following.

#### *1. How Might We Deal with the Possibility of Studying the 'Continuity' of Experiences 'in Tension' with What Might be Named as 'Significant'?*

Chawla (1998a, p. 381) concludes that 'no single all-potent' experience actually produces 'environmentally informed and active citizens'. In the absence of

comparative studies, Chawla points to the intriguing possibility that other members of the public who may not be interested, sensitive or committed to the environment could have had the same experiences as those who were somehow now committed to the environment. For example, nature experiences might be alienating for some. Conversely, those who are urban conservationists may have had very little to do with those formative experiences described as significant. There are, it appears, multiple routes for different personalities and identities in varying social and environmental conditions and cultures to various environmental outcomes. These important conclusions crystallize the prior question posed by Myers, cited by Chawla, about how individuals make sense of their lives in relation to the configuration of experiences that somehow they construct as 'significant'. How individuals (and groups) construct 'significance' both 'in' (during) and 'out' (after) of 'the' experience appears to be a crucial question SLE researchers need to address, as touched upon earlier. If so, there is something perplexing about choosing the 'right' subjects for research predicated on a particular assumption about a causal relationship between certain experiences, ontological understandings and the predetermined outcome or consequence of an activist identity. This begs the question of what researchers want to 'hang their hat on', rely on in understanding others, ourselves, commitments and actions, and how we go about giving expression to a wide range of values that might inform different versions of environmentalism.

Tanner, I suspect, will disagree with the nagging doubts this author has about 'choosing the right subjects'. But, in regard to the bigger picture question of education's democratic role in human development, growth and socialization towards environmental awareness, sensitivity, commitment or action, it appears as if SLE research does need to broaden its understandings about how different individuals construct and reconstruct experience 'for' and, as Chawla alerts us, potentially 'against' environmental ends. As stated previously about the different types of outdoor/nature experience, it cannot be presumed that certain pre-specified experiences/correct knowledge will lead to particular educational ends, again pre-specified by the teacher or the curriculum document. While 'trainers' or behaviourists might be happy with competency-based methods, performance indicators and instrumental approaches to learning, many educators are far more cautious about the cooking of cause and effect recipes. Seen from within the context of many individuals, varied personalities/identities and a range of routes to different environmental outcomes, some 'strong', others 'weak' and others that reflect learners who simply don't care about the environment, there is a place in research for both 'right' and 'wrong' subjects if we wish to know more about the 'democracy of experience' and less about curriculum models that prioritize some experiences because they might cause some to be active. On the contrary, this 'social intelligence' (Dewey, 1938) of 'right' and 'wrong' experiencing subjects may allow us to see far more clearly and inclusively what works and what doesn't, what is the ontological complexity of *being* at the school and in the home/neighbourhood or in other places and spaces.

This democratization of experience proposed for research with its ensuing social intelligence also has a small political imperative. Chawla (1998a, p. 377) makes the point that the notion of activism needs to be broadened beyond the conventional focus on wildlife and conservation issues. She includes a host of other possible activist sites such as recycling, transportation and so on, including

those 'green' living, sustainable lifestyles. Tanner (1998b, p. 408) concedes green living is 'commendable', but insufficient for his preferred, stronger versions of 'genuine' activism. What this mention of green living effectively brings into focus, but is not stated by Chawla and Tanner, is how individuals can be both environmentally sensitive and active *within* and *during the* mundaneness of everyday life experiences. The personal is political! While encouraged by Prince Charles's critique of the proposed introduction of genetically modified (GM) food in Britain, most people will be activated more by the thought of eating and paying for it. A recent explosion and 2-week disruption to Victoria's (Australia) sole gas supply brought home to many people an appreciation of their dependency on gas and electricity, but also an understanding of how they could actively modify their lifestyles in ways that were far less environmentally consumptive. Environmental groups and leaders, in fact, had little to say on the entire matter given, unfortunately, in Australia, they no longer enjoy the limelight they once did. It is almost a common sense that ordinary, everyday experiences, routines and habits like overuse of gas, electricity, petrol, eating GM foods and so on are at the very localized heart of the environmental problematic. Everyday experience is one 'site' where individuals can actively 'make a difference', and now recognize this, particularly when so many in the globalized western world feel so cynical about big P politics, including those played by environmental movements/organizations. While 'saving the earth' and 'wilderness' campaigns have an important place, 'domestic' and personally political issues are equally deserving of inquiry for a variety of compelling reasons.

This point about what now constitutes 'activism' in a changed political environment warrants further elaboration beyond the anecdote and common sense introduced above. Tanner (1998b, p. 400) cites an impressive array of sources that support his claim that 'ecological integrity is maintained *only* by politically active citizens'. By and large, Tanner believes it is a 'fundamental error' for SLE researchers to include environmental educators and other populations because, as he says, they are not going to save the earth. Tanner, acknowledging his North American background, defines political activism as direct engagement in pro-environmental political activism and/or the giving of sufficient time and money to such activism as individual resources will allow [3]. Tanner's activists are those who are members, if not leaders, in (national) environmental organizations. Most of us will not disagree with Tanner's point about pursuing and justifying his seemingly valid line of research. However, in an equally revealing study of western environmental movements, Paolo Donati (1997) argues that the political impact of modern environmentalism is not adequately explained by research that has focused almost exclusively on the 'left-libertarian' component, be it in the form of a 'postmaterial generation' (akin to Doyle and McEarchen's 'new age' environmentalism) or of the 'New Middle Class' [4]. Giovanna Di Chiro (1995) potently endorses this point while Bron Taylor's book on 'ecological resistance movements' candidly reveals the 'gap' in understanding between North American ideologies about what constitutes radical environmentalism and the 'actual' environmental struggles in many other parts of the world (Auxier, 1999). Donati concludes that Green movements, almost everywhere, have been successful in 'becoming' a major national political actor due to many other 'mobilizations', predominantly at the local level by the 'old' middle classes who are far less likely to join environmental groups or be



seen to associate with their values and campaigns. The increasing frequency of local mobilizations is characterized by Donati as 'the interaction between actors with moderate political orientations', often those who are 'dwellers' in areas confronting growing environmental risks, and actors with more radical, anti-establishment attitudes. Donati's point about the increasing resistance of 'dwellers' endorses the activism of the 'personal as political', but converges with the rise of the influential category in SLE research of negative experiences of (local) habitat destruction, or local unwanted development, perhaps in the form of NIMBYism.

For the purposes here, however, of discerning what an 'activist' probably is from within the continuity of experience, and in response to Chawla's call for comparative studies, Donati goes on to make a number of very important observations about how local grassroots mobilizations have effectively pressured local and central governments. First, he claims that activation and mobilization of old-middle-class citizens 'owed little' to the major environmentalist organizations that are normally seen as 'officially' representing the movement. Second, most grassroots activism was 'short-lived'. Third, he argues that in many cases the mobilizers would 'disclaim the patronage' of the 'main' environmentalist associations, or refuse to 'concede' a leadership role to 'movement activists' [5]. In sum, Donati reveals that much grassroots activism has been successful in that it constitutes a different aspect of environmentalism to that 'officially' carried on by major organizations. Donati's overall assessment of 'postmaterialists', 'new' and 'old' middle classes makes more visible the successful environmental resistance and activism of a range of social strata involved in environmental issues, in different parts of the (western) world. Finally, if activism is also defined by the ability to donate money to a cause, then this immediately cuts out many subjects in both the North and the South. The lesson to be learned for SLE researchers, I believe, is that 'activism' takes many forms and, by and large, any analysis either in research about subjects or *for environmental education* must pay attention to how individuals and groups form themselves in diverse settings for different purposes and are now more prone to take 'community action' in relation to local environmental problems!

How, then, various experiences are individually (Chawla), *socially, politically and culturally* constructed as 'significant' in current SLE research may, in part, rest on how such experiences provide a point of intellectual, emotional or physical departure or 'escape' from the banality of everyday 'normal' routines or 'insignificant' experiences. Local, normally sedate, residents in a coastal, 'surf' town here in Victoria have quickly gathered to take *social and political* action against a proposal to build a McDonald's restaurant. They argue that the 'food' and the physical amenity of the building contradict the healthy lifestyle and beach environment currently enjoyed by locals and surfers. This campaign has flowed on to the next proposal by McDonald's to build another restaurant in a suburban area of Melbourne, a capital city of nearly 4 million people. Increasingly, as social actors we seem to define ourselves, perhaps as dwellers, on the basis of what we don't like 'out there' (and possibly explains the emergence or more conspicuous appearance of 'negative experiences' (Chawla, 1998a, p. 374)).

What begins to emerge from the above discussion of contemporary activism, significant and insignificant experiences, personal/community eco-politics of dwellers is that it is difficult to sustain an argument *only* for the 'right' subjects,

'right' experiences and, presumably, the 'right' environments they *might* agitate for, defend, save or ignore. The gas issue literally imploded 'in here' in most homes in Victoria. Alternatively, the exteriorization of 'outdoor/nature experiences' raises related concerns about the *cultural* constructions of significance. There is plenty of evidence to support claims about the benefits of wilderness/nature experiences, as exemplified in the SLE literature. But even that cultural significance can be challenged. Wilderness might be one type of significant escape for privileged sections of the population (Beck, 1995, pp. 36–57). But, as editorialized in *The Journal of Experiential Education*, Richard Kraft (1980) decries the rampant individualism and narcissism of many wilderness experiencers who, upon their return to the city, are disinterested in the Deweyan 'service ethic' or genuine activism he believes is an important component of experiential learning. These two contrasting examples point to the vexatious nature of constructions of both 'significance' and 'the' environment.

In posing the challenge of exploring how significance (of experience, of environment) is constructed *socially, politically and culturally*, there is the deeper *individual* question about how certain environmental sensitivities and actions are also constructed and privileged in environmental education discourses. Generally speaking, the discourses of environmental education, including SLE, have tended to valorize those more exotic versions of environmentalism and the environment/nature through highly charged campaigns to 'save the ...'. Subsequently, more prominent versions and 'displays' of environmental sensitivity, commitment, employment or action taken through identification with the causes of, or membership of wilderness groups and the like are privileged. While these dominant forms and social constructions of environmental activism are crucial to any 'emancipatory politic' (Giddens, 1994), there is always the risk that the generative nature and action-competencies of personal life-politics that might be fostered *in situ* through the everyday, continuity of experiences will remain 'forgotten', devalued or on the margins. There is, I sense, reason for SLE researchers to be open to this.

Tanner (1980, p. 23), I think, was alert to this possibility in environmental education (and research) when he called for 'a radical departure from traditional policy' by substituting, for example, non-expensive, small-group releases to nearby wooded parks or vacant lots for a few hours for the traditional large-scale field trips to 'more or less natural settings'. In short, following the oft repeated but rarely developed call for 'sustainable lifestyles', my recommended broadening of the concept of 'significant' experience to its 'continuity' does incorporate a 'personal-politics' and environmental sensitivity/action which might more effectively be practised and experienced at home, day in, day out. To what extent that implicitly devalued 'life politic' (Giddens, 1994) is generative of the 'knowledge (and experience?) of action strategies' identified as a priority by Chawla (1998a, p. 380), and researched elsewhere in detail by Jensen and Schnack (1997) and Bishop and Scott (1998) is an important point that some feminist researchers have clearly anticipated and to which ontologically, epistemologically and methodologically, yet again, we might turn (for example, Haug *et al.*, 1987).

So, there are potentially many practical gains to be made politically and Politically by broadening the concept of experiences to their continuity and seeming 'insignificance'. The same can be said for the concept of environment, natural wild and exotic with built, tame and domestic. 'Sustainable' environ-

mental education might then move ahead, instead of just being another slogan. Inquiries are needed into the respective social constructions of significance and nature/environment, and what really counts as 'significant' to individuals for both 'weaker' and 'stronger' versions of activism. It would be inappropriate to predicate any practical development of curriculum only on the basis of findings that privilege 'stronger' versions of activism for more 'exotic' causes and campaigns. This risk extends to the pedagogical probability that the influential categories of 'significant experiences' will become a series of 'contrived experiences' that instrumentally aim to establish a cause and effect production-line relationship between certain educational activities and preferred outcomes. This 'ought' may have very little to do with the 'is's' of the recipients of these environmental education 'oughts'. For researchers, there is the related risk that the conceptualization of ongoing research efforts will reduce the continuity of 'experience' and 'environment' to those which can be categorized, itemized and prioritized, socially constructed and valued as significant.

There are other, more immediate consequences to the notion of continuous experience I am suggesting in an expanded portfolio of SLE research. Mindful of Chawla's (1998a, p. 369) strong conclusion for more attention to be paid to the inner environment, it is not immediately clear how Chawla's (1998b, pp. 391–392) call for 'dynamical analysis' or 'grounded theory' into the 'operation and interaction' of 'clusters of experience' is best served by her earlier recommendation to control multiple answers by individuals and tighten the categories of analysis. Chawla's recommendation has some merit at one level, but might pre-emptively straightjacket 'experience' at another, noting the acknowledged gains of qualitative methods in environmental education. I sense it is at this point that an overemphasis on methodological and epistemological 'rigour' and need for 'exactness' also serves to overclassify, devalue, or deconstruct, the ontological reality that invariably is 'experience', be it continuous, significant or otherwise. Experience, as a focus of study, is best served by naturalistic qualitative methods and analysis that are better equipped to deal with human dynamics, interpretive latitude, slippage and ambiguity.

Reading between the lines of what Chawla and others say, the conceptualization of future research efforts might consider Dewey's notion of the 'continuity' of experience, 'growth' and the role of 'unsettling' disequibration/re-equilibration processes, possibly 'significant', that occur in the organism–environment interactions. It is here, ontologically, that the human and social 'reconstruction' of experience called for above becomes most lucid, at least theoretically. Dewey's elaboration of continuity as growth might well be addressed epistemologically and methodologically through more focused life histories, narrative concepts of selfhood, grounded theories, longitudinal studies, 'lived' experiences, autobiographies and the like (for example, Hart 1996). Depending on one's bias in research, however, it is here that both (interpretive) qualitative and (positivist) quantitative research approaches (such as Pathway Analyses) might contribute in different ways to clarifying how the interactions or 'clusters' of various experiences can be seen in a more 'continuous' or 'unifying' light.

Having explained what I believe are some of the key problematics within the discourse of environmental education arising from the way 'experience' and 'environment' are used in SLE research, I turn now to a second ontologically based concern expressed again within that SLE discourse.

## 2. Responding to the Tensions of Inner, Human Environments and Outer, External Natures.

Chawla's (1998a, pp. 380–381) call for research into how the 'silent' side' of the 'inner environment of individual differences' ultimately gives external events their significance is important. There is, however, little attempt to clarify what is meant by the 'inner environment' thus leaving Chawla's call open to numerous interpretations. I cannot pretend to have much of a grasp of the psychological understandings which Chawla, undoubtedly, has. Environmental educators have historically paid insufficient attention to what psychology has to say about personality, perception, behaviour and so on. On the other hand, I can point to how 'the body' as a (phenomenological) site for environmental education can provide a very useful and practical vantage point for inquiring into inner environments and their differences (for example, van Manen, 1990). The following suggestion of a 'way forward' for researchers revolves around the central notion of believing or accepting that we sociologically and psychologically can have somatic understandings, intelligent bodies (O' Loughlin, 1997) or 'thought bodies' (Rose, 1996) whose ontological 'positioning' in individual, social and cultural life can be interrogated or examined via many of the approaches mentioned above in relation to Dewey's notion of continuity.

The body has attracted considerable attention in feminist methodology (for example, Haug *et al.*, 1987), theory (for example, Gatens, 1991), ecofeminist philosophy (for example, Soper, 1995; Field, 1997) and conceptually/empirically in environmental education (Payne, 1994, 1996, 1997, 1998, 1999, in press). Inquiries into and through the body foreground 'individual differences' in ways that more immediately and transparently reveal a host of eco-political issues in environmental education, including socio-economic class/status (no, its not redundant, but it is disappointing that such an influential variable remains so inconspicuous in SLE theory, findings and research recommendations), gender, age, ability and ethnicity concerns.

How might the body, as one version of and approach to Chawla's 'inner nature', bridge the dualism between inner and outer natures, a dualism whose tension is reflected yet again in environmental education discourses and whose lurking 'trajectory' in SLE research has been detected by Chawla? In her discussion of 'corporeal subjectivities' and the 'postmodern subject', Marjorie O'Loughlin (1997) provides some important cues for further deliberation. O'Loughlin arrives at the twin notions of 'intelligent bodies' and 'ecological subjectivity'. How I sit in relation to the computer I'm now working on as I write this is an example of that tacit understanding my body has of the office environment. Similarly, a kayaker assumes a more or less fixed linear down-the-river position in his/her kayak while her/his body *extends* into the river environment and responds to its demands via the use of various tools of control, such as the paddle (Payne, in press). These examples of intelligent bodies and ecological subjectivity mark out an ontological and experiential description of how living bodies have to be seen as ones that are in constant interaction with an environment 'as those specific bodies understand it'. O'Loughlin's use of the term ecological subjectivity depicts how embodied subject's 'first-hand' involvements are with the place in which they live and the intimate connections they feel in these places they encounter as a form of 'dwelling'. First-hand embodied

experiences (inner, corporeal 'nature') of various environments can then be appraised for the twin purposes of shedding light on the SLE call for explanations of how individuals socially construct experience while subjecting it to eco-political critique (for example, Payne, 1994, in press; Price, 1995)

To digest this point, particularly that about the corporeality of bodies as a focus of eco-political critique and site for change, compare what might be revealed individually, somatically, socially, ecologically and politically by inquiring into two different bodies that respectively and regularly breakfast in a McDonald's restaurant (significant, so it now seems to be in Australia!) or at the kitchen table at home (mundane, boring!). We can be sure that the first corporeal body, at least, ingests and 'experiences' a microscopic slice of a massive globalized production, transportation, retailing and marketing system which the latter (activist) body might intelligently escape, relatively ecologically speaking.

This somatic understanding of spatial and temporal 'experience' includes, according to O'Loughlin, other aspects of the 'commonality' of human experience. Her philosophical concern about gender is reflected empirically in environmental education in Payne's (1997) study of embodiment. Amongst other things, it demonstrates how males and females see themselves as constructed and embodied by very particular and personalized environmental problematics. These clues add further flesh to the way I have already explained that ontological bases of inquiry into the continuity of experience are best explained through understanding how the body is located, positioned or configured by various relations of time, place and space.

What this discussion hopefully leads us to is a greater awareness of the unassailable connectedness of our bodies to their environments. 'Inner' and 'outer' natures do not collapse into one amorphous holistic blob as 'deep ecologists' are prone to have us believe (Slicer, 1995), but tend to merge in highly differentiated ways where various 'pathways' from one to the other exist. O'Loughlin's 'wake-up' call about the 'discursive submersion of the body' looms ominous in those environmental education discourses that repeatedly emphasize external 'nature'—all too often at the expense of Chawla's attempts to reclaim inner 'nature', seen here alternatively as the 'experiencing' corporeal body! Bodies, in the way I seek to characterize them are active and intelligent within the ontological continuity of socio-environmental experience. Bodies are not just docile consequences or products of language, texts and discourses. Nor are bodies the essential repository of what it is to be a human actor. They are, hopefully, more than that. Bodies are a strange mix of inner and outer nature, to which history, language and materiality act as filters and structurings of human experience. Ontologically based inquiries, including SLE research, have already shown this.

There are, I hope, clear implications for how Chawla and others might better understand how 'inner nature' might be studied. Be it from the perspective of psychology, phenomenology, or other options, we need to recognize that both individual minds and bodies mediate both 'inner' and 'outer' nature/environments. To think otherwise is to reproduce a dualism that cannot withstand the most commonsense of scrutiny. The key, again, is a degree of acceptance of the importance of the 'continuity' of experience and the multiplicity of environments in which individuals can actively make a difference. Chawla (1998a, p. 380) is absolutely correct when she concludes 'more attention needs to be given to

articulating the characteristics of the person who ultimately gives external events their significance'. But let us not be hasty in rushing off into self-referential or preconceived notions of what inner nature might be and how it might be tackled. For example, Kenneth Gergen's (1991) highly provocative psychology of the 'saturated self' provides food for thought, as does Rose's (1996) 'invented self', while James Cote's (1996) tentative empirical framework for examining youth identity, in cultural context, is promising beyond the possibilities mentioned above. There are, of course, a host of possibilities but those just mentioned are attempts to locate the self, identity and differences in context. In all, the inner/outer nature dualism is to be avoided.

### Directions?

The SLE body of knowledge is significant for environmental education in at least two fundamental ways. Its findings provide potentially solid ground for those operating at the 'grassroots' of curriculum and pedagogical development or organizational leadership. Second, its emphasis on the starting point of 'experience', albeit those that are significant, and cluster as such for the 'right' subjects, paves part of the ground for exploring the ontological bases of human experience, a lack in much environmental education research.

On the first count, while research activities must continue in ways that learn from previous research efforts, other studies must investigate the social and educational utility of those current findings. That is, research needs to examine and/or audit the transfer, application and uptake of the findings by those whom the research purports to serve. While recognizing the recommendations of SLE researchers to treat the clusters of influential categories more interactively so as to build up a more continuous picture, insights from other educational fields should be appropriated. For example, some 'special educators' working towards 'inclusive' goals and practices clearly recognize the deficiencies of exclusively targeting the child with a disability for intervention. The subjects of that goal/focus can only be helped by placing them in a broader context of inquiry and eventual intervention. Now, 'ecological' school-based interventions aim to communicate and coordinate the *continuity* of contributions from the 'significant, influential variables' of parents, psychologists, doctors and other carers. How, therefore, Bronfenbrenner's 'ecology of human development' model (1979) has been utilized in Special Education practices warrants consideration from curriculum developers working with the current batch of significant variables resulting from SLE research. For example, environmental educators might seek ways to move beyond the territorial 'role' and resource constraints of teachers/schools, parents/home and community/neighbourhood. Roy Ballantyne *et al.* (1998, pp. 285–298) and his colleagues have already indicated ways in which this might occur in environmental education with specific mention of how students might act as 'intergenerational' catalysts with their families and communities. In the meantime, the special issue of *EER* confirms that SLE researchers should continue to question and refine their own views, particularly about methodological issues. But methodology and epistemology are only a part of the equation and part of the solution!

On the second count, the SLE literature opens up an important space for a more earnest exploration of the ontological bases and foci of inquiry. In relation

to the central category of 'significant experiences', SLE researchers have a head start on 'grounded' findings. A challenge is to extend that head start by re-examining and reconceptualizing how experience is continually being reconstructed by underlying patterns of social reality. SLE researchers do need to move 'outside' the largely self-referential nature of its chosen domain and ultimately its own discursive reproduction. An alternative version of ontology is offered, one that seeks to explain how the structuring and continuity of embodied experience, or 'inner nature', is immersed and embedded in the historical, social and ecological 'environment', or 'external nature'. The purpose is to suggest also how at least two tensions in SLE research, as reflections of similar tensions in environmental education discourses in general, might be reconciled. Demystifying and untangling these tensions may contribute to better understandings of how individuals, be it learners, teachers, activists and researchers actively construct experiences and expressions of their significance in the face of the equally problematic social constructions of the 'environment' and 'nature'.

### Notes on Contributor

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### NOTES

- [1] To be as clear as possible here I am using ontology in a social, relativist manner and not in a 'foundational' philosophical sense. My approach focuses generally on how time, space, place and sign/symbol structure the central category of human experience. More particularly, however, my interest in a social ontology for educational inquiry in environmental education deals more emphatically and practically with the pragmatic *structuring* of human socio-environmental experience by a range of historical, material, economic and technological means. It seems to me that curriculum and pedagogical development 'rests' on the need for better, more complete explanations of where 'learners' are contextually at, how they are historically 'positioned' day-in, day-out and, hence, probes what conditions and circumstances of social experience can be inquired into and socially/politically 'changed'. Thus, 'a critical ecological ontology' for educational inquiry for being for the environment (Payne, 1995, 1997, 1999). Ontology, therefore, 'precedes' but connects with epistemology and methodology. It certainly precedes curriculum and pedagogical development. As Steve Gough (personal communication, 10 June 1999) points out in retrospective inquiries like SLE the tables are turned. The epistemology of hindsight is used by 'activists' and researchers to name that experience and is part of the reason why experience is viewed as singular and not contextual or continuous. The latest reporting of findings might be overcoming this problem as more context is added to the representation of findings. Finally, ontology needs to be differentiated from its 'closely related partner' phenomenology. My use of ontology points to both the continuity and contingency of human experience. I deal directly with the continuity of experience shortly. Phenomenology tends to deal with more analytically discreet and identifiable 'events', the latter being a possible interpretation of some SLE findings/categories such as nature experiences.
- [2] Constructivism currently enjoys the spotlight alongside the panacea of computer-mediated approaches to teaching/learning. But, until recently, educationalists have been reluctant to critique the rise of constructivist epistemologies, least of all on the basis of clarifying the philosophical and educational assumptions made about the ontology of the particular curriculum field (Osborne, 1996).

- [3] Australian authors Timothy Doyle and Doug McEarchen (1998, pp. 55–80) observe that North American environmental movements increasingly reflect a ‘profoundly’ apolitical individualism which they attribute to the rise of ‘new age’ environmentalism. It seeks, according to Doyle and McEarchen, to change psychological and spiritual values from within the individual. The need for individuals to inwardly change their relationships to nature, they believe, usually comes at the expense of the political realm, where the interplay between social groupings needs to be accompanied by a critique of the existing political system. Doyle and McEarchen allude to the fact that much North American environmentalism, and increasingly so in Australia, New Zealand and some parts of Scandinavia, now evidenced in education circles, and perhaps due to the presence of large tracts of relatively natural areas with low populations, is preoccupied with wilderness orientations and perspectives and the importance of geographical rootedness of individuals and groups in ‘place’. This ‘deep’ ecology has occupied a privileged position for the past 15 years in North American environmental philosophy and is only now attracting critical scrutiny from ‘social ecologists’, ‘ecofeminists’ and, to a lesser extent, ‘animal liberationists’. Doyle and McEarchen’s observations about North American environmentalism rest on contrasts with western European environmental movements which they argue have typically been rooted in anti-nuclear energy issues and the politics of human and political ecology—a form of social ecology.
- [4] ‘Postmaterial values’ include participation, self-actualization and aesthetic needs. These primary values are linked with ‘lifestyle’ concerns, one of which is environmentalism. ‘Lifestyle’ is practised by postmaterialists in the form of a growing interest in the quality of individual life chances and self-determination while ‘environmentalism’ is viewed as an ‘expression of a decreasing attention to material wealth and its distribution’. According to Donati (1997, p. 148), the rise in postmaterial values is accompanied by a decline of interest in economic and class-based issues. The ‘New Middle Class’ is those environmentalists who typically represent the new professional strata and who have a high level of education and intellectual skills. They are a ‘class’ of professionals who are often employed in various fields of social and cultural reproduction—teachers, social workers, public servants and semi-professionals and professionals in the medical services. New Middle Class ‘members’ are interested in decentralization, openness and a general democratization of social and political life.
- [5] Beyond the two ‘elite’ (Donati, 1997, p. 149) ‘postmaterial’ and ‘New Middle Class’ sources of environmentalism is the ‘old’ middle class, or *petite bourgeoisie*. This strata of environmentalism are not active in the ‘official’ movement, are unlikely to become members of it, mobilize occasionally on ‘single issues’ when directly concerned, and do not adhere to postmaterialist values. They are less likely to hold a university degree and a professional job. Often they are not young, nor are they part of an alternative culture. Although they might share some of the sentiments of environmental causes they do not see themselves as environmental activists or movement participants. According to Donati this old middle class tends to become spontaneously involved in local issues due to economic motives or fears related to personal security. They worry about personal health and are often preoccupied with threats to their property/asset valuations. Single-issue involvements include, for example, opposition to landfill proposals, plans for freeways, and other ‘environmental’ issues that threaten noise, air and visual qualities.

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