

EMBODIMENT AND ACTION COMPETENCE

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Introduction

I was startled by my father's advice that there was no need for me to leave the tap water running while brushing my teeth. After all, I was only eight years old! I did know about the importance of clean, healthy teeth. But, letting the tap run...? It was a typical hot, dry summer in South Eastern Australia. The State government had already imposed severe water restrictions on the domestic use of water. Australia is one of the driest continents; the absence of water and presence of fire is a strong cultural sensitivity. The reasons for the water restrictions meant little to me. I thought water was never ending! All you had to do was turn on the tap and clean your teeth! Like most children, I had no knowledge of the infrastructure needed for the supply of water like the damming of rivers, or concern about environmental issues like cattle grazing and land clearing in catchment areas, public health debates about lead pipes and water fluoridation, or the environmental consequences of waste water. All of this in a drought afflicted country whose trials and tribulations I was only beginning to see. My job was simply to clean my teeth in the morning after breakfast and again at night before going to sleep. Little did I know or care. My father also said that a great deal of water could be saved if all of us in the family only used the water we really needed.

At about the same time as this 'crisis' in our water supply, I was also breaking the heads off my father's matches and secretly stuffing them down his neatly packaged, still unsmoked cigarettes. I can remember liking the aroma of tobacco. But, for some unknown reason, I hoped the sudden burst of flame would stop his bad habit and clean up the bad air my older sister, brother and I had to breathe. Cigarette fumes gave me a rotten headache. I couldn't imagine why smokers would willingly give themselves a headache. I didn't even like taking headache pills! My mother actually wanted to take up smoking because it was popular with her friends. The best way to stop all of this, I bravely thought, was an all out attack on my father's body. A couple of cigarettes did flare in my father's face. I received a stern rebuke for my activism.

Some forty years later I still turn the tap on only for the final rinse. I now live in a 'recycled' house in the bush that is, amongst other environmentally stable things, self-sufficient for both water supply and waste. Some local governments are only now considering the possibility of having city dwellers install their own rain water tanks. I have also passed on my father's simple wisdom to my daughter who, now 12 years old, has already saved a great deal of water. Fortunately I have never smoked, noting my father died from a heart attack when I was thirty. My sister has just given up

smoking again, for the umpteenth time, after many attacks of bronchitis and asthma. My mother died from environmentally induced cancer a few months before my father's death.

What is the reason for retelling these childhood experiences? Four interrelated points highlight how a strong relationship exists between 'embodiment' and 'action-competence' and why this relationship needs to be pursued in health and environmental education.

- First, the body is a primary source and site of action. Bodies act competently or incompetently. 'Competence' is a social construction, but what acting bodies actually do is often unknown and open to inquiry, interpretation and assessment, all in the name of assessing competence. Habits, traditions, routines, conventions, tacit behaviours are all part of a bodily disposition and form of action, either competent or incompetent. Cleaning teeth, eating apples, riding a lift, dressing for work and so on, at first glance, are relatively trivial. These simple experiences are routines which few of us give much thought to as each experience becomes 'embodied' and 'embedded' in the self. These routines slip below the level of talk and become habits, good or bad. We forget about them. They become the 'everyday' of normal experience.
- Second, these embodied habits, however, are always connected to the surrounding environment. Simple actions and experiences extend into visible and invisible consequences for both environmental concerns and health issues. Water can be saved by knowing when to turn a tap on and off. Teeth become decayed when the routine ingestion of certain foods is not challenged.
- Third, bodies are 'intelligent'. For the most part individuals know how to 'get along' in the everyday. Much interaction is bodily, tacit and cultural but not always benign in health and environmental considerations. Bodies can also be 'taught'--a simple message like my father's can bring about a temporary or permanent change in previously invisible habits and social routines. The invisibility of incompetent bodily action can be made visible while the undoable or unchangeable can be made doable or changeable.
- Finally, even young children can have a 'bodily' and 'moral' consciousness and act 'politically' on it!

In all, the above points about bodily intelligence, the invisibility of the normal, and the bodily awareness of one's own regular, everyday activities are accessible through inquiry. The body in the everyday requires examination. Hence, the notion of 'forms of experience' is offered as a means of focussing inquiry by learners, teachers and researchers into the actional body and deliberating about its competence or incompetence. How we understand human experience through practical inquiries into its everyday embodied forms, I contend, can critically amplify Bjarne Jensen and Karsten Schnack's (1997) notion of 'action-competence' in health and environmental education.

In this chapter I am primarily concerned with explicating how the notion of 'forms of experience' creates important connections between Jensen and Schnack's 'action-competence' and the role of 'embodiment' in environmental education (Payne, 1997). The connections, however, are not straightforward. Some conceptual work is needed in this essay so as to make deeper sense of the everyday anecdotes used to practically introduce the essay. In particular, the memories I have about my father address two of the four problem areas in action-competence identified by Jensen and Schnack (1997, p. 176), namely the troubling role of habituated action in human experience and

its consequences. In the following pages, I suggest how these problem areas might partially be resolved by asking learners, teachers or researchers to identify and directly examine those 'forms of experience' that, all too often, we take for granted. Habits, traditions, dispositions and other tacit behaviours are literally at the heart of many environmental and health problems and issues. Yet, as Jensen and Schnack rightly argue, the relations of actions, habits and experience are not well understood.

There is, however, one important qualification I need to make at the outset so as to put the contribution of 'embodiment' to 'action competence' in the appropriate context. While Jensen and Schnack (1997, p. 166) argue that action is 'intentional', much of what we take to be human agency (and, by implication, action, interaction and environmental/health consequences) is often 'unknown', 'uncertain' and 'unintentional'. Understanding the body in action, as challenging and inconclusive as that might be, is, I believe, one of the keys to becoming more competent and confident in human action and interaction! So, too the cognitive and intellectual dissonance Jensen and Schnack associate with action competence, I add the notion of 'embodied dissonance'. What does embodied dissonance mean? It means that what our bodies actually do is often unknown, or below consciousness, and is often at odds with what we think we are doing. Put another way, sometimes there are contradictions between acting and what we say or cannot say about that action and its consequences. Sometimes 'actions do speak louder than words'. The assumption of a causal relationship between intentionality and competence, therefore, needs to be qualified by accommodating the view that tacitly or habitually acting bodies act unintentionality in ways that often contradict the mental/rational intentions of individuals (and groups) in the way they act, interact, associate and communicate. Moreover, it is often the consequences of action, be it intentional or unintentional, that is the best measure of competence.

I openly concede, therefore, that there are limits to rationality and critical change presented by elevating the body and reflexivity about it to a central position in inquiry (Fay, 1987). In effect, human agency is not a straightforward proposition, nor are questions about what it is to be competent or not in action. Competence, however, might be gauged by deliberating about the consequences of action! Acknowledging the embodied limitations to rationality and change does not delegitimize the political aspirations of Jensen and Schnack's educational theory for action competence. Instead, recognizing bodily and environmental 'limits' might assist us to be practically 'more competent'. Thus, 'interrogating' intentional and unintentional bodily practices for their health and environmental consequences is one means of reconciling those embodied dissonances which, often, are a primary source of action incompetence.

This chapter, therefore, explains how identifiable 'forms' of embodied experience provide the strategic educational means of inquiry through which a greater degree of competence can be achieved by individuals and groups. These investigations are to be facilitated through 'interrogations' of what Alberto Melucci (1996) has referred to as the 'silences of the body'. Melucci calls for a 'phenomenology of the everyday'. The 'excavated', everyday body-site has the capacity to act as a 'pedagogy of existence' (Melucci, 1996) culminating in what others have referred to as 'somatic understandings' (Fay, 1987), 'embodied intelligence' (O' Loughlin, 1997) or 'thought body' (Rose,

1996). A necessary condition of this recommended interrogative study of bodily silences is that it be 'ontologically-based' (Payne, 1995, 1999a). That is, like the cleaning of teeth, the forms of experience and embodied relations such activities contain must be readily accessible, normal and 'real' to the participant inquirer's socially 'lived experience'.

One other key condition and virtue of linking action competence, the body and the everyday forms of experience is the immediate accessibility (or temporal, spatial and symbolic proximity) of the learner/inquirer/researcher to the *mundane and seemingly banal* issues he or she is already experiencing, no matter how 'insignificant' they are within the overall 'continuity of experience' (Dewey, 1938, Jensen & Schnack, 1997, Payne, 1999b). In so doing, I contend that the underlying motivation, understandings, propensity, willingness and confidence to act bodily on 'locally' problematic health and environmental 'concerns' is both enlarged and enhanced--hence the processes of competence attainment are catalyzed. Anthony Giddens (1994) would refer to this humble possibility as a generative type of 'life politic' which, when practised sufficiently through the strategic 'sampling' and interrogating of various problematic forms of embodied experiences, might precede the more established 'emancipatory-politic' of socially-critical inspired approaches to health and environmental education. Elsewhere I have characterized the approach I am recommending as a 'humanly constructive' curriculum perspective of environmental education (Payne, 1999a).

Educational Challenges for Action Competence

Jensen and Schnack (1997) identify four challenges for the ongoing development of Action Competence. They are,

- Clarification of the components of action competence and their relationship to subjects in the curriculum.
- Examination of the relationship between action and action competence.
- Considerations of action, habit, practice and experience.
- The relationship of individual, common and collective actions and experiences.

My recommendation for inquiries into 'forms of experience' and their 'embodied relations' and 'dissonances' responds primarily to the challenges of the second and third problem areas. Fuller consideration of the first and final problems are discussed in Payne (1995, 1997, 1999a,b) where I call for education to focus more emphatically on matters of a 'socio-ontological' or 'phenomenological' type. In regard to the third problem area, Jensen and Schnack (1997, p. 176) rightly acknowledge that 'modern behavioural and habit patterns are of crucial significance for many of the societal problems.' They pose the question—how can we come closer to an understanding of the 'types' of experience, including habits as another class of action, that develop action competence, and the types, if any, that counteract it? What follows is devoted to that task. I suggest, however, that an examination of the 'types' of experience only does not fully address what can be achieved in interrogating the 'form' of experience where form encompasses the embodiment, type, style and mode of experience (Table 1).

Some conceptual background is required to set the scene! Elsewhere the prominent social theoretician Anthony Giddens (1984) explains how three levels of consciousness--the un, practical and discursive underpin how individuals and groups actively 'reconstitute society'. For example, an eight-year-old boy inadvertently remakes a water crisis through his habituated action, or practical consciousness, of letting the water run while cleaning his teeth. That habit is 'below' the discursive consciousness of the agent, the boy; it is 'practical' in the sense it is an embodied action. In explaining how society is reconstituted by agents' actions, Giddens argues that practical consciousness is a major source of many social problems. This 'doing without thinking' consciousness must be penetrated, interrogated and excavated so that 'new knowledge' can be developed. Hence, the previously 'submerged' realm of 'unknowing' action provides the now intentional 'grounds' for more competent agency. Most importantly for educators, Giddens argues that if we are to unmask how personal and social life are knowingly *and unknowingly, or non-intentionally*, remade, a main task of social inquiry is to reveal how individual and group conduct is carried on habitually via this practical consciousness. For Giddens, the practical consciousness may be a function of tradition, ignorance and other 'set' or 'given' ways of knowing and doing. Hence, it is a form of historical experience that concerns us most here, not just the analysis and critique of a simple activity 'type'. Basically, as Giddens puts it, the practical consciousness tacitly allows us to 'get along', day in and day out, warts and all. Giddens argues that the practical consciousness, unlike the historically sedimented unconsciousness, is accessible to talk, or discursive consciousness, through sustained inquiry, or interrogation. A father's reminder about running tap water provided an appropriate cue. Thus, by focussing inquiry on various forms of experience, this chapter targets the 'lifting out' and making visible to the learner what otherwise is 'sedimented' and invisible, even to his/her subjectivity.

A practical example will help illustrate how the invisibility of actions and interactions, or embodied relations, in the experiential 'form' of a lift-riding can be made more visible. I am most interested now in revealing the 'silences' of those embodied relations that, when 'lifted out' through bodily inquiry, can contribute to the development of embodied intelligence and deeper insights into the question of 'competent' lift riding. There are no formal rules for riding a lift apart from the usual sign that tells us the maximum allowable number of people allowed in the lift or what their combined weight should be. If this supposedly regulatory 'text' is noticed, which is rare, the discursive rule is usually ignored by the agents/actors in the lift. There are, however, *many informal, non-discursive rules*, or 'conventions' that agents/actors comply with about how to practically ride the lift. These invisible rules of bodily action and interaction are adhered to, often rigidly, although there are cultural variations. What generally are these rules or conventions in which 'normal' practice of lift riding occurs?

'Competent actors' are those who enter the lift first and move to the rear of the lift, turn and face the front. Later arrivals occupy the sides, but also face to the front. Backs are positioned against the wall, hands are often folded in front of the body or hang tightly onto a briefcase, laptop or handbag. Weight is evenly distributed on feet braced apart. Maximum body 'space' is silently jockeyed for as people enter and exit the lift during its ascent or descent. Eye contact is avoided by

fixating on the floor or on the changing floor numbers. Talk ceases or is carried on in a hushed manner as 'attention' is often passed to the piped music. Often, there is a feeling of individual and 'group' discomfort as personal space is invaded when the lift's maximum 'carrying capacity' is approached--an unofficial form of embodied dissonance despite it being officially sanctioned by the unseen written regulations. And so on, with many bodily movements and gestures providing the dominant or normalized means of 'competent' action and interaction according to those pre-established conventions or informal rules. These bodily interactions, relations and 'communication' are 'reproduced' *only* in action by those actors who embody certain cultural 'expectations', irrespective of the official, discursive rules that supposedly legislate or 'govern' behaviours. There are no signs in the lift that explain the 'real' way individual agents act or their collective embodied relations. Yet a strong case can be made that action and interaction is 'competently' carried out according to the invisibility of the convention. Moreover, a 'standard' is historically re-set each time that individual body enters into the lift and acts in that particular way, sometimes with minor variations. That is, through his and her embodied actions and interactions the agent reproduces the individual and collective 'resource' of a non-discursive rule for the future ways lift riders will act and interact.

This well known example highlights how practical consciousness and various patterns of socio-environmental consequence 'work' invisibly, for individuals and the socially collective response, over time, place and space. That is, until inquiry reveals what, arguably, is a level of incompetence in the ways we are 'conditioned' habitually to ride a lift. Why should, for the most part, competence be sanctioned as a bodily and communicative 'silence' and momentary awkwardness? Moreover, an analysis of the 'type' of activity only partially tells us how experience and its consequences are 'formed'. What might routinely be a 'normal' type of activity for some, like lift riding, might prove to be far more interesting for the critic of social behaviour and interpersonal relations. The same can be said for the types of activities used or deployed in environmental and health education where questions about the competence and confidence of individuals and groups to act upon problematic personal circumstances and situations is often clouded by an overemphasis in schools on 'contrived' learning experiences as distinct from 'real' events in real everyday situations.

Lift riding is one of those habituated activities that Jensen and Schnack, and Giddens, challenge us to question, even if not directly related to the concerns of environmental and health education. But it is a good everyday example of how inquiry can make the invisible more visible and to which the reader can easily relate. More importantly, the activity of 'standing competently' in a lift is an **embodied** 'form of experience' where the individual is positioned in a situation of repeated social encounter that has particular individual and social consequences. It is also an **activity** with a certain participatory **style** that occurs in particular contexts of historical influence. Different people 'do it' for different reasons but these differences are underlined by a certain degree of commonality over time and space, as hopefully I have demonstrated. The health or environmental educator may not choose to educate about that lift riding 'experience'. But, for illustrative purposes here, reflexivity about its embodied form enhances insights into questions we might ask about the competence of 'how we get along', both individually and collectively in a lift. The task here for environmental and

health educators concerned about the competence and confidence to act is to select other curriculum and pedagogical activities closer to their respective educational objectives and treat them reflectively and critically as educative forms of experience.

Numerous other forms of experience like drinking coffee, sitting at a computer, idling the car engine, leaving the heater going, boiling the jug can be interrogated for the health and environmental consequences of those everyday experiences. For critical analytical purposes, a far more detailed 'phenomenological' description of the embodied relations of the form of experience of kayaking follows. These examples illustrate the type of interrogative work that learners, teachers and researchers might undertake in revealing the problematic conventions, rules and resources of health and environmental 'behaviours', 'practical consciousness', 'silences of the body' or 'codes of conduct'. The point is that if we are to gain competence in acting experientially upon a situation or circumstance then we need to understand how our intentional and unintentional actions and 'embodied relations' are 'conducted', and knowing and 'unknowing' consciousnesses of them are 'governed'. And so it is with making judgements or deliberate 'choices' about many health and environmental issues that culturally and educationally are far more troubling than riding a lift.

In response to Jensen and Schnack's concerns about the connection of habit, action and competence, let me now more formally re-interpret the above reading of lift riding as an **aim of inquiry**. *Embodied experience is framed by different types of activities that historical actors, as selves with identities, participate in according to various lifestyle pursuits and plans. Action, and by implication, experience can be knowing and unknowing, intentional and unintentional, with certain unpredictable individual, social and environmental consequences. An interpretation of the agent in action and the consequences of such agency is needed.* This aim incorporates four dimensions of human experience, namely its **embodiment** in certain **activities** that are participated in **stylistically**, perhaps as a function of **lifestyle** and identity seeking by **historical** agents/actors (Table 1).

While it cannot be argued fully in this chapter, one indisputable feature of contemporary life for many in the affluent north and west is the phenomena of post scarcity, overconsumption--a major source of the 'postmodern' preoccupation with identity-seeking and lifestyle as well as many health and environmental problems (Payne, in press). Recently reported research in Australia into the 'fat trap' concludes that years of public health promotion about the value of a healthy diet and exercise have failed to prevent Australian children becoming fatter. One third of Australian children are now overweight or obese, a figure that has doubled in the past ten years. The researchers conclude the cause of this 'epidemic' are complex and far from clear. Nonetheless, childhood is acknowledged as the potential definer of obesity syndromes and future health risks. This research also points to the domestic and cultural forms of experience that the researchers believe provides many of the barriers to changing lifestyles in a 'healthier' direction. The examples of children being driven to school instead of walking, and being confined to the house rather than freely playing on the street or at the park are offered as 'local' examples of the everyday problematic of routine experience, a focus I have stressed in this paper. These problems are 'generational' and 'cultural', even 'gendered' and 'classed' as we are now seeing with the rapid rise around the world of cigarette smoking teenage girls! Culturally, there is cause for pessimism and the loss of 'competence' in that the cultural

magnitude of these problems is 'too large' for any one learner, teacher or researcher to act on. Yet culture finds ways to 'encode' or 'inscribe' the individual body in action--particularly when it comes to the life'style' of experience. What is it that stylistically within that form of experience has led to the global explosion of cigarette smoking amongst younger girls, the new convention of being driven to school, and so on?

A similar trend is discernible in environmental concerns. A few weeks before the welcoming of the third millennium, a leading Australian newspaper reported the main findings of an Australian Bureau of Statistics survey. Yet again, the number of people expressing environmental concern has declined. This cultural trend started in 1992. Despite a somewhat 'healthy' 69% of the public still expressing some concern, the report also stated this concern did not necessarily translate into environmentally friendly practices. A few weeks later, in the same newspaper, a study commissioned by the Australian Conservation Foundation found that four out of five young people believed the nation should concentrate on protecting the environment even if that meant reduced economic growth. A more telling story sub headed 'modern pressures get in way of action' reported some of the respondents' personal views that speak more directly to the question of agency, action and competence. Said one. "I do think the environment is important, but it is not something that I think about often. There is too much other stuff to concentrate on. I don't have time to think about it...". Apparently, most of her friends "feel powerless to act", to which another telling thought was added "...one person wouldn't be enough to change or alter anything". This self-defeat is symptomatic of a loss of confidence and competence because, I suspect, understanding how one's experience of the world is formed has been swept stylistically and culturally away from the body by modern pressures. Nonetheless, a more optimistic response was then reported, "...there are people that feel responsibility...that are taking steps, even if they are only small." This 'hope' was immediately dampened with another more sobering view, '...we are pretty right...I don't think there is really anything wrong".

My own research and experience suggests that what increasingly are cultural problems for younger children, like chronic overeating of certain foods while watching television or bad posture while sitting, standing and walking are best tackled at both the individual and embodied levels, in the very first instance. Hence, a return to the body as a practically accessible site and means of inquiry into how actual experience is formed. But this view raises important questions about ideology and methodology! On the theoretical surfaces, I am probably at odds with that conventional wisdom that persists in critiquing individualistic approaches to health (Colquhoun & Robottom, 1990) and environmental education (Robottom & Hart, 1994). Philosophically, I too am opposed to the logic of individualism. Individual problems should not be seen as the collapse of cultural capital—a form of 'intensification'. In inherently practical domains like education, however, we might now need to re-think our ideological assumptions. How bodily experience is intensified requires excavation. In full view of the hyperindividualized aesthetics of self-invention and creation so typical of the 'self-architecture' of contemporary (western, affluent) youth (Cote, 1996), I pragmatically believe that the cultural colonization of the individual, or the governing of his or her soul, can potentially only be remedied, in the very first instance, at the embodied and individuated level of 'identity'

consciousness, 'postmaterial' seeking and consumption-oriented praxis (Payne, in press). Allegedly anomic and nihilistic postmodern culture provides few alternatives. Optimistically, human agency cannot be denied while the competence or incompetence to act remains an everyday reality.

The remainder of this chapter will elaborate the key ideas of 'embodied intelligence' and 'forms of experience'. It will address how they inform the crucially important notion of a social ontology of practice that must 'constructively' be interrogated if a realistic concept of agency is to be developed that is amenable to the development of action competence.

Embodied Intelligence and Forms of Experience

The quest for action competence is usefully aided through practical inquiry by the educational development of an embodied intelligence and pedagogy of body silences. The main task is clarifying the problematic role in human action of habits, traditions, norms, codes and other 'conventions' of human behaviours. 'Forms of experience', like the daily routine of teeth cleaning, provide an accessible, analytical category for practical inquiries by learners and/or teachers. Researchers can also contribute through empirically-driven studies, theoretical refinement and ideological contestation of the proposals introduced above and developed below.

For the purposes here, brief mention of three key dimensions of embodied intelligence is warranted. Following that, a case study of kayaking is presented so as to illustrate how these three dimensions interact and respond to questions about the competence to act and what we mean by action competence.

- A first dimension of embodied intelligence is to view the body as the primary experiential site of social and environmental encounters. In so doing, the body marks the 'materialization' of ethical and political reference. Accordingly, we need to understand how bodily experience is structured in different ways and in different contexts if we are to deliberate about the competence to act ethically and politically. In what follows shortly, I comment generally on schooling and its institutional role in structuring of experience. Unfortunately much educational experience is questionable because it relies on contrived 'type' activities that immediately jeopardize the competence to act in the 'real world' of environmental and health encounters.
- Second, in response to these concerns about action competence, I elaborate how the body is 'corrected' through its technics and corporeality. That is, the active body is shaped visibly and invisibly by various cultural factors. Effectively, the body in action is not natural nor neutral. Unless these corrections are analyzed and assessed, questions about the competence to act may miss many of the influential factors and forces shaping behaviour.
- Third, I mention how this corrected or restructured praxical body is often different from its discursive or linguistic representations. There remains some truth in the old adage that 'actions often speak louder than words', while words do not necessarily accurately reflect action.

In sum, I locate the question of what constitutes action competence in the 'dissonances' and 'silences' the acting body 'experiences' in its various 'forms'. Unless each of these dimensions of the

body in action and interaction, including communication, can be examined there is enormous potential for a mismatch, or conflict, about 'knowing' or 'intelligently embodying' what we actually do as a 'thought body' and what we say 'theoretically' as a disembodied 'talking head' only. If this mismatch occurs, the embodied competence to act ethically and politically is immediately compromised.

1. The body as structured experience in social and environmental encounters.

Experiential learning is stressed in many human issues based curriculum areas like environmental, health, physical and citizenship education. Yet complaints about chronic theory-practice gaps persist. Often, rhetorical 'promises' and theoretical 'potential' are not delivered practically. This deficiency can be traced to the absence and silence of the body in much educational theory, curriculum documents and resource materials. Periodically, in educational journals devoted to experiential learning, the theoretical assumptions of experience are examined, while the relationships of theory and practice are explored. 'Experience' has long been a concern of educators, as well as philosophers, social theorists and so on. Despite its importance and centrality to inquiry, there is something troubling about the way we think about experience in education. Even the most basic reflection on the wide variety of ways in which the term experience is used shows what a complex term it is and how difficult it is to pin down. Direct, vicarious, aesthetic, emotional, personal, holistic are just a few of its descriptors. These are often prioritized on the basis of certain assumptions about learners or teachers, and presumptions about processes, values, and outcomes, thus leading to certain 'claims' being made about 'educative' experience.

Perhaps, more attention should be given Robin Usher and Richard Edwards' (1994, p. 206) warning that 'experiential learning is fast becoming a central object in a powerful and oppressive discourse' in postmodern educational theory. A return to and stress in inquiry on bodily experience may provide the means of identifying and challenging the various 'interests' Usher and Edwards worry about. They are critical of those interests that seek to own, control or *structure* human experience at the broader level of schooling and through particular curriculum applications.

Unfortunately, despite an increasing amount of rhetoric in education that valorizes 'direct' and 'authentic' experiences, schooling is a 'disciplined' form of human experience that is structured institutionally and pedagogically through learning activities of a very narrow and restricted type and style. If so, intellectual 'experience' is elevated in importance and subsequently reified as vicarious due to the abstraction of knowledge or information deemed legitimate by the schooling system and authoritative by its messengers, such as the curriculum document, teacher implementer and researcher of it. The body is rendered docile, the mind is infinitely malleable to the signs and symbols of different interests while student perceptions of reality are increasingly made 'irreal'. The body subordinated to the mind is effectively disabled in its inaction and, arguably, is a major cause of practical, everyday incompetence. Only tradition and set ways of thinking about the curriculum, teaching and learning 'construct' the learning body in particularly unintelligent ways that prevent educators and their students from being more active (Carr, 1995). Exploration and experimentation

of subject with object of inquiry is actively discouraged in many instances. Instead, students unfortunately do become mere consequences of certain privileged texts. In this discursive scenario of the textualized lifeworld, the possibility of agency (Emirbayer & Mische, 1998) and the associated hope for 'reconstructive' experience becomes less attainable.

Alternatively, the subsequent corrective search by worried practice-oriented teachers and researchers for competence, confidence, perception and the ability to understand and deal with the consequences of both inaction and action may best be served by curriculum approaches and pedagogical methods that reinstate the learner as an embodied, real world actor. They will encourage experiential learning and democratic participation where the subjects conducting inquiry will physically interact and 'grow' with the objects of inquiry (Dewey, 1938). Effectively, subject and object 'merge'. The body as a structuring device and means of learning is implicit to these experiential processes and outcomes. Thus, a crucial pedagogical 'move' for learners to understand the structuring of experience is to strategically identify those immediately accessible forms of embodied experience, be it the cleaning of teeth at home, the riding of a lift or some other activity carried on 'conventionally' in day-to-day life. Even so, if we take seriously Usher and Edwards' warning about the oppressive potential of experiential learning there are additional depths to the notion of experience in a postmodern technologically replete world that require plumbing in the name of acting competently.

2. The body as culturally corrected through its technics and corporeality.

The development of embodied intelligence about the underlying structurings of human experience is reliant upon an appreciation of how the imperatives of technology and consumption combine to visibly and invisibly structure certain styles of experience. Much of this stylistic 'cultural correction' of human experience is deeply troubling for health and environmental educators. Eating an apple has historically been considered a good approach to both health and environmental education. Eating apples is a sign of competent dietary action. Apples are rich in nutrients, they are preferable to other snack or fast foods and are, relatively speaking, environmentally benign. But what about the pesticides I hear from some more vigilant educators? Pesticide residues are one layer of cultural correction of what we otherwise presume to be a 'good' eating experience. Increasingly, however, this first layer of cultural correction of 'normal and good' bodily experience needs to be seen within the additional layers of the infrastructure required to provide the apple before it is eaten. Moreover, apple eaters must now contend with apples that are waxed, irradiated and, possibly, genetically modified, raising serious questions for both the health and environmental educator about just focussing their endeavours on the type of activity learners might need to understand and act upon. Effectively, the embodied experience of eating an apple includes swallowing the cultural 'residue' of supermarkets, transport and the chemical and genetic industries. The same with teeth cleaning. Yet our consumptive lifestyles leave us little choice! This lifestyle 'ingestion of culture' culminates in a disempowering form of behaviour modification, a breeding ground, if you like, for *action-incompetence*. In a nutshell, the technologies that pervade both individual and cultural life are *non-*

neutral, are instrumental in the way they 'order' and 'correct' bodies and cultures, are transformative of the time/space configuration of the body and culture and in doing so 'mediate' the body and culture in ways that are ambivalent but, at the very least, require deliberation. The structuring of embodied experience, or technic of the body (Payne, 1996), as well as competence, needs to be seen in the depth of this light.

That human experience can still be viewed as 'authentic' and nature as 'natural', it seems to me, potentially disables questions in health and environmental education about competence. To state this point provocatively, William Cronon (1995) alerts us to some of the issues related to 'getting back to the wrong nature', be it the wilderness experience for outdoor enthusiasts and environmentalists or, perhaps, 'natural' foods and remedies for the health advocate or educator. These sometimes myths about what is 'right' or 'good' may diminish the competence to act. This point is borne out empirically in a study of children (Payne, 1998a, b) where, for example, historically modified, locally experienced and therefore embodied 'natures' can still be subjectively judged as 'natural' by these young 'experiencers' and not as objectively real consequences of highly questionable human actions. Conversely, young adults are more likely to act on the knowledge that what they ingest, wear or groom themselves with is 'artificial' and has been culturally fashioned by 'invisible' factors whose bodily consequences for them are potentially troubling, at least (Payne, 1997). Culture has numerous technologies at its disposal. None of them are natural, nor are they neutral, but they might have 'good' and 'bad' characteristics and consequences. We embody most of them in our daily actions--be it in the nutrition, fashion, sport, nature, sex and, even, death industries. Invariably these culture industries or 'tools' are willingly consumed and embodied by you and me, in different ways again according to circumstance or situation and context.

I have witnessed excellent secondary student's scientific analyses and criticisms of, for example, 'fat substitutes' glowingly listed on the packets of the breakfast cereals we eat. Similarly, I have viewed an artist's public 'exhibition' of a vicious and traumatic assault on the body. When the body is the 'activity' site of interrogative inquiries, conducted scientifically, socially or aesthetically, 'investigative actions' and 'direct actions' are potentially brought much closer together (Jensen & Schnack, 1997, p.170). How these 'technologies of a self' or 'technics of the body' can be interrogated for their embodied dissonances and intelligences, via an ontologically informed curriculum 'model', is described in considerable detail elsewhere. Also acknowledged are methodological and epistemological considerations relevant to teaching and learning such as the 'ethnographic' use by learners of life histories and the reflexive development of an (embodied) narrative concept of selfhood (Payne, 1995, 1997, 1999a). Scientific understandings necessary to developing insights into, for example, the chemicalization or genetic restructuring of apples to be ingested and embodied should not be precluded from the quest for action competence (Bishop & Scott, 1998).

3. The actional, or praxical, body as being different from its discursive or linguistic positioning.

Language, talk, stories, texts and other discursive means of consciousness and communication are crucial to experience, as postmodern and poststructural critics have reminded us. But, language or texts alone cannot fully explain or be equated with experience. Language, talk and texts are a narrative reduction of, or 'best' approximation and representation of what it is to bodily experience and 'be' in the world (Payne, 1994). In the wake of populist poststructuralist explanations, Marjorie O'Loughlin (1997) has concluded that human subjects should not be conceived of as mere effects of language, or positions only within or contained by discourse alone. This critique is endorsed by others such as Giddens (1989), Melucci (1996) and Rose (1996) and is illustrated in the above account of riding a lift. Talk and subjectivity, therefore, are inescapable elements of a degree of embodied incompetence. All we can do is try to find new ways of explaining and describing the structure of experience (Ihde, 1993, p. 7) and of interpreting the agent and agency rather than subjectivity (Giddens, 1989, p. 195). A warning! The following phenomenological 'account' of kayaking and 'the paddler' uses a different type of language in an attempt to develop an interpretation of the kayaker, as agent and actor!

So, for greater competence, existing language must be relied upon to a certain extent, or invented relative to explaining the praxical body and (self) interpreting the human agent, as best as possible. But the limitations of language, talk and stories must also be acknowledged for it is a source of lack of competence for some. We only need to be reminded of the difficulties many people have in expressing themselves, particularly young learners. But the acknowledgment of the limitations of language in disclosing and revealing the body might also be a source of 'empowerment'. New methods, pedagogical and research, including the use of art and other expressive means are required to 'get at' and 'lift out' a more intelligent sense of bodily experiences (Payne, 1998a,b).

Let me summarize a number of key propositions about embodied intelligence and its dissonances before proceeding to a more detailed excavation for illustrative purposes of a particular form of experience, case studied in the phenomenological account of kayaking.

- *Schooling structures the experience of learners. Often experience is structured pedagogically in contrived activities that effectively disembody, disembodify and decontextualize (or abstract and individualize) the learner from his/her 'everyday'. It is not surprising, therefore, that actors display a lack of competence and confidence in dealing with the everyday problematics of their own and others' health and environment.*
- *A pedagogical return to the silences of the corporeal body provides one important means of reconciling the subject-object, practice-theory distinctions evident in many approaches to environmental and health education.*
- *Language, as a representation of embodied experience, can only strive to clarify what it is to socio-ontologically 'be in the world' and act as a limited form of critique for those things we find questionable as health and environmental educators.*

These three propositions are important in adjudicating the competence to act and, therefore, what we take to be action competence. How so? In a nutshell, for example, kayaking is

discursively/rhetorically often claimed to be a 'good' of environmental, outdoor and even health/physical education. Learners 'experience' the environment and its 'naturalness'. A closer reading of kayaking reveals a host of other concerns. Hence, with apologies to those seeking simple explanations, the following account of kayaking acts as an indicator of how the notions of forms of experience, inquiries into them, disclosure of embodied relations and advancement of embodied intelligence and amelioration of embodied dissonance are heuristic to questions and concerns about human competence and action competence. Press on with the different type of discursive 'representation of reality'.

The embodiment of kayaking; Experience structured and formed for 'the paddler' (Table 1)

A kayak is a cocoon-like tool used for travelling on rivers. This cultural artefact is designed to help the kayaker individually produce technically accurate human actions and environmental consequences. The kayak is fibreglass, or more recently, (almost unbreakable) plastic; the material transformation demanded by the need for the individual to resist physical damage while eliminating individual and group time lost for repairs difficult to undertake in wet or cold conditions. The rocker (design below the water) and deck of the kayak are designed precisely to shed rough water that inhibits the kayak/kayaker's progress. 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 minimising its flooding. The paddler's body is also textured by a wet suit whose function is to warm-up a film of water soaked onto the skin, or more recently a dry suit that preserves the dryness of clothes and skin. Either way, the neoprene's additional texturing and skin-like layering of the paddler's body limits the coldness-of-water, thus conserving individual bodily comfort and regulating emotional security and health. Paddlers are physically enveloped in and secured by the tool. A metal and plastic paddle is held in the arms of the kayaker. Its length extends the range of motion of the arms/hands and in doing so magnifies the propulsive power of the arms driving the kayak through the water. The paddle's double blade provides for a rotational constancy of blade-in-water which further multiplies the accelerative and propulsive power of the kayaker's upper torso, arms and hands. Adjustable foot rests permit the lower body and feet to brace and stabilise the propulsive power of the upper body. When combined with the size of each blade a greater 'catch' of water provides for forward momentum, steering and stopping of kayak.

Embodied-relations and the cultural 'correction' of human experience and re-ordering of space-time interactions and relations.

The kayak-tool's purpose, as instrument for experienter to operate physically on the river, is essentially dual. The instrument fits specified contexts of use oriented to particular places and routes preferred in stylistically playing on and challenging a way down-the-river. Despite the morphology of each river, river now as phenomenal space and time to be 'experienced' is instrumentally re-ordered according to human and social constructions of play and risk, while paddler conforms and is

transformed or 'corrected' by those tool-use-contexts described above. Spatially, kayaks and their artefactual means of propulsion are designed in such a way that the paddler's visual field and range of physical movements are inclined predominantly forward. The field of visual and physical reference is highly selective according to the linearity of the kayak's design to play and challenge down-the-river. That is, the arrow-like-linearity of the tool and its cockpit/seating positions 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 fixated on stoppers and eddies or rocks, rapids and snags that stylistically sign-post gymnastic-like play/performance or challenge/risk to performance and progress on/down-the-river. Temporally, paddler is suspended or accelerated by play-experience, challenge-engagement, and risk-consequences.

Play and risk 'affordances' in the environment are determined perceptually by the paddler's ability to embody the characteristics and capabilities of the kayak instrument, as a cultural tool of river travel. That is, the kayak, as the paddler reconstituted as an individual whose body is now extended as an instrument, must negotiate playfully with certain technical skills such as pirouetting a way-into and out-of the stopper or way-past the challenging-of-rock or through the risk-of-rapids. In the face of perceived play and risk for the kayak-embodied, the paddler may 'back paddle' or 'break out' from the directionality to which the kayak-tool is linearly committed. River banks might be used to gain a different visual perception of the play and challenge affordances of the river for competence/progress to be achieved. To execute playful performance or broach the directional intentionality of the kayak, the 'flat-deck' or fulcrum-like 'rocker' manufactured into the range of kayak models is significant in the paddler's attaining the technical capabilities of the tool. Achievement might involve luck, to be carried by the water, but attainment is invariably attributed to the capability of the kayak to be competently embodied by the kayaker as the-one-and-the-same tool. The kayak, its technologies and use-context, river, tend to fade-away-into-the-background of successful physical performance of risk, play and challenge. Lack of attainment or non-achievement invariably foregrounds the inadequacies of the tools or the lack of technical competencies needed by the paddler.

Hopefully, a clearer picture of the embodied kayaker, the activity type called kayaking and a drastically needed interpretation of agency, the 'paddler' (rather than subjectivity of the kayaker) is now available. The briefest of mention of the adventurous and playful style of the experience has been offered to help establish a cultural context for the activity. Critical insights and debates about style considerations, such as the consumptive instrumentalization of nature or modal contextualities of what probably is a white, young affluent and male dominated type of activity, cannot be offered here, only invited.

Numerous other 'types' of experience and body silences demand interrogation in the same manner I have undertaken with kayaking for what they reveal positively and negatively about culturally formed experiences and their health and environmental consequences. This would amount to a pedagogy of bodily existence. For example, younger students might interrogate their own involvement in 'shopping' for food with a trolley being pushed up and down the supermarket aisles.

They could then link that interrogation with another about the preparation of a meal using the ingredients they purchased. The 'continuity' and 'growth' of experience (Dewey, 1938) can, therefore, be better understood (Figure 1), by connecting the antecedent experiences and consequences of a particular meal. Older students might examine the trend to open-air breakfasting, for example the 'Café Latte' scene (Table 1). A social-ontology of this popular activity would examine not only what is ingested, but also focus circumstantially and stylistically on the environmental encounter, including the spatio-temporality of inhaling the lead fumes of cars and busses as they pass.

Concluding comments: Ontology, forms of experience and competent, critical agency

Ontology is a philosophical term that, for the purposes here, means the study of what it is to *be* a human being, of which the body is a central source of action and, therefore, pre-eminent site of inquiry. A 'social' ontology, partially illuminated above in the various examples of teeth cleaning, riding a lift and eating an apple and via the more detailed phenomenological reading of kayaking is a deliberate practical 'move' to show the nature of action.

Mention of ontology is unlike 'foundational' attempts by philosophers, scientists, lawyers and the clergy to mark out, or promote, an absolute 'human nature' or essence of what it is 'to be', *be* it metaphysically, biologically, psychologically, legally or speculatively. A social ontology aims to capture and reveal the nature of human action and interaction. Why? Human-issues based curriculum like health, environmental, physical, civics, multicultural and social education inevitably deal with learners knowing and acting wisely in the 'everyday'. Competence is best addressed in that experiential context. Bearing in mind, Usher and Edwards timely warning that experiential education may be an oppressive discourse, Don Ihde's (1990) conclusion about the texturing of postmodern experience is also revealing. Ihde has coined the phrase 'double desire' to depict those of us who want to reinhabit the world but, at the same time, reject the technologies that allow us to do so. In such contradictions breeds a level of moral and political 'incompetence'.

The notion 'form of experience', therefore, provides an accessible, non-idealistic, practical, analytical and critical category for self and/or 'other' directed inquiries by students, teachers and/or researchers. If so, the paddler whose agency is interpreted above might become a 'reflective practitioner' who is more competent in adjudicating his or her actions. A teacher might reflexively treat activities and types of experience more broadly than what existing curriculum contrive to do. An academic researcher might critically pursue the 'postphenomenology' of so-called 'lived' experience in activities like kayaking, riding a lift, drinking a café latte and weigh them up against 'claims' of a deep environmental or health ethic. In this chapter, I have tried to demonstrate how the development of embodied intelligence and its dissonances within an interrogation of given forms of experience (and their continuity) can enhance and enlarge the notion and practice of action-competence. Put negatively, excavations of forms of experience can demystify those habitual, practical incompetencies that unintentionally reconstitute and reproduce 'localized' environmental and health problematics. A fuller explanation of the ethical and political consequences of interrogating embodied forms of

experience would have included detailed excavations and normatively driven evaluations and critiques of the types, styles and modes of the various forms of experience.

In summary, an interrogative posture for human-issues based curriculum, including health and environmental education, that privileges a holistic or socio-ecological 'humanly-constructive' perspective, is summarized in Table 1. Inquiries focus critically on the body, type, style and mode of experience.

Table 1. Towards a social ontology of human experience for educational inquiry

AGENT'S ENVIRONMENTAL STRUCTURING FORM OF	QUALIFICATION	LOCATION	Example 1 The 'paddler'	Example 2 'Cafe Latte'	EXPERIENCE
1. Embodied	Positioned and 'corrected', technically and culturally	proximal space/ time	kayak's tools and cockpit. River/banks		Eating utensils and chair/table. Path/roads
2. Type	Situational/ circumstantial	embodied relations in space/time	various technical skills/manoeuvres in kayaking. Intensified	menu, meal	selection and sequencing
3. Style	Engagement/ encounter/ identity investment	symbolic and personal/ social/ performative	self/nature; risk/danger; adventurer, commodified recreation	self/appetite; trend/status;	friendship; commodified lifestyle
4. Mode	Context/ episode/ historical	Demographic, geographic. (status, age gender, ethnicity, ability)	young, capable mobile, affluent, male, individualized mobile,	professional, urbane,	affluent, social

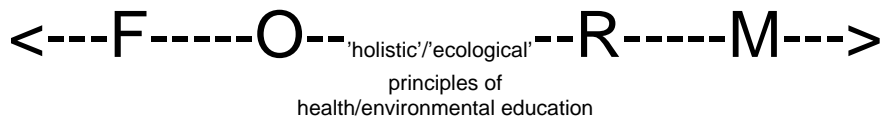
Seen in relation to the more descriptive accounts of different experiences offered earlier, Table 1 identifies in relatively neutral terms the different, arguably dominant, dimensions of an individual agent's forms of experience. A form of experience, however, is one analytically discrete notion that provides a practical framework for inquiry. Individuals and groups have many forms of experience, some of which interrelate, and provide a larger 'target' for 'socially-critical' examination, as depicted in Figure 1.

Figure 1. The individual's 'form' of experience as a basis for the 'continuity' of social experience and critical inquiry.

Social experience



1. Embodiment 2. Type of activities experienced 3. Style of experience 4. Mode of experience



Agency/actor at immediately accessible/proximal 'local' levels

Agent/actor at structural and historical 'cultural' levels



Individual's continuity of experience

Shared class or small group inquiries into different individual forms of experience endorses the notion of a holistic education in health education (Jensen, 1997) and the 'ecological consciousness' often claimed in many versions of environmental education. Rarely are these important ideals described, least of all in ways that practically realize the 'theory' and which, hopefully, have been demonstrated and explained above. From the intersection of Table 1 and Figure 1, both health and environmental educators might see how the body provides an important conceptual and practical starting point for these important and useful claims about holism and ecologism in education. The body can be viewed not only as an object of inquiry and focus of curriculum/pedagogical strategies, but also as a *means or process* of inquiry. Human experience in both its individual forms and continuity is the 'real' marker of competent and incompetent action. This is another main message of this chapter, with a particular emphasis on responding to the question posed by Jensen and Schnack (1997) about the problematic relationship of habit to the development of action-competence.

Environmental educators are typically interested in experiencing, studying or saving the environment 'out there'. They too might view the environment and nature as 'in-here' by acknowledging that corporeal bodily forms of experience are the socially and culturally constructed means of encountering the 'natural' environment, engaging with environments according to circumstance and identifying an ethical-political 'stance' within their own physically/materially embodied positioning--spatially, temporally and symbolically. Otherwise, the ideas of ecological and holism, so important respectively to environmental and health educators, become mere slogans and buzz words that rhetorically have little to do with the ontological social reality of the lived experiences of both individuals and groups.

Despite fruitful discussions periodically held between health and environmental educators, much work is needed to help learners, teachers and researchers find ways to grapple more confidently and competently with their own, and others, health and environmental predicaments. The silences of the body are far more deserving of attention, excavation and interrogation. As Jensen and Schnack observe (1997, p. 64), part of the challenge of action competence to health and environmental education is to 'envison alternative ways of development'. This contribution highlights

an ontological starting point from which various epistemological and methodological possibilities can be pursued. It seems to me that any educational intervention can only be as good, or bad, as the presuppositions that intervention makes about those whom it purports to serve. Unless tackled in ways that reveal how everyday human forms of experience can be understood in ethical, social and political relation to their embodiment, types, styles and modes of 'participation', there is little reason to feel confident about those disembodied and, therefore, decontextualized curriculum and pedagogical approaches to health and environmental education. Effectively, they serve to reconstitute a sense and outcome of action incompetence. To return to where this essay started, developing embodied intelligence about seemingly trivial forms of experience like teeth cleaning or riding a lift is a necessary condition or, better still, practical stepping stone to acting more competently, confidently and capably on numerous other problems and issues of interest to health and environmental educators and researchers.

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