

TECHNOLOGY, PHENOMENOLOGY AND EDUCATIONAL INQUIRY

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Introduction

In this essay I aim to shed some light on how educational inquiry might be informed by what, in referring to a 'new philosophy of social science', James Bohman (1991) means by a mutually enhancing relationship between philosophy and the social sciences. To do this I draw extensively on the work of Don Ihde, a philosopher of technology. Ihde's version of phenomenological philosophy aims to discern *the structure of experience*, of which many dimensions seemingly are 'invisible' in human action and to human perception. A technologically replete postmodernity suggests strongly that the structuring of experience by the escalation of even higher technologies into education should be of profound interest to educational researchers, theorists and practitioners.

Ihde's ideas about phenomenology are used in this essay to 'read' kayaking, an experience or activity sometimes used in outdoor, physical, or environmental education. This illustrative reading illuminates the structuring of experience in kayaking *through* its technologies. Phenomenologically speaking, technologies like kayaks, paddles, spray decks and so on are material artifacts or tools that mediate simultaneously human experience and the immediate environment. Notably, 'adventure' is an outcome claimed from the human experience of kayaking. I call this initial reading of kayaking a 'hermeneutic phenomenology'.

Although it is not attempted here, a second-stage 'critical phenomenology' *could* then be constructed by overlaying on the hermeneutic phenomenology certain ideas about 'risk' gleaned from Zygmunt Bauman, Anthony Giddens and Ulrich Beck. These social theorists provide keen insights into the moral, social, political and ecological dimensions of the risk phenomena of postmodernity. Their respective insights about risk, society and ecology converge conceptually and practically with the 'adventure' logic of kayaking in river environments. This convergence critically amplifies the moral, social, political and ecological risks of

kayaking. This is another form of phenomenological investigation that might usefully be directed towards educational understandings, and hence, phenomenological philosophy is offered here as a method of undertaking research into the 'grounds' of educational experience.

In effect, what would be ideally a dialogical undertaking of hermeneutic and critical phenomenologies methodologically underpins the primary concern of this essay. As a 'grounded philosophical' approach to educational research *about* technologies and human experience of them, such as in kayaking, it aims to make more visible the invisibility of moral, social, political and ecological issues and questions. By way of distinction, the use of technologies *for* educational research is not a primary concern of this essay. As research *about* technologies and technics, however, implications for the use of technologies *for* research are self-evident; particularly the inescapable fact of the 'non-neutrality' of technologies that are used in and for research. Furthermore, the choice of the activity of kayaking for phenomenological analysis about technologies is incidental despite the strong convergence of adventure and the social-theoretical theme of 'risk'. The choice of 'risk' as a key theme is deliberate, due to recent developments in debates about a postmodernity replete with technologies.

Phenomenological philosophy is developed here as a candidate for a type of educational inquiry that seeks, eventually, to advance educational theory and practice in postmodern times. How phenomenological philosophy might redress the persistent problem of a theory-practice gap in education is taken up in the latter stages of this essay.

The philosophy of technology and postmodern times

The challenge to educational research of making the invisible more visible is a theme that has recently preoccupied philosophers of technology. Don Ihde (1979, 1983, 1986, 1990, 1991, 1993), in particular, has struggled since the early 1980s to broaden the scope of the philosophy of science. Some of his central ideas are startling; for example, he asserts that our 'basic existence' is 'technologically textured', and that the term 'ecosystem' should be replaced by 'technosystem' (Ihde 1990, p. 1). Nevertheless, philosophers of technology use a variety of approaches in explaining technology in contemporary society. Frederick Ferre (1988), an analytic philosopher, provides a conceptual mapping of the philosophical reach of technology. Cardwell (1994) provides an historical account of technologies. Langdon Winner (1986) seeks to descriptively awaken people from the 'technological somnambulism' he uses to characterize the 'willing sleepwalk of society' in a 'technopolitan culture' (Winner 1986, p. 5). Gilbert Germaine (1993) brings to the political philosophy of technology some of the historical contributions to critical thought of authors not commonly associated

with critical theory. Andrew Feenberg's (1991) philosophical approach is unabashedly critical. He argues that the roots of the varied contemporary 'crises' we now experience can be traced to values embodied in the designs of technologies. Ihde himself is concerned about praxis and utilizes phenomenology to make clear his concerns about the relations of technology, perception, action, 'lifeworld' and culture. Nonetheless, philosophers of education and educational theorists remain largely unaware of the various contributions and perspectives of the nascent philosophy of technology.

The challenge of technology to educational researchers takes on an urgency unparalleled if we consider the plethora of 'popular' and 'academic' writings celebrating the advent of even higher technologies into the classroom, workplace and other lifestyle trajectories. For example, 'The Age' has a weekly lift out section devoted to the latest in information technologies, ABC 'drive time' radio has computer experts regularly 'talking back' to troubled but friendly users, 'netters' surf the tidal wave of the information superhighway, while the shelves in any newsagency are replete with glossy magazines adjudicating the purchase of the latest piece of equipment. The practices of the 'Schools of the Future' policy are oriented very strongly to a particular technological version of socio-economic life. Yet, very little is said about the moral and ethical 'futures' accompanying the escalation of technologies into the schools and the curriculum.

On a less celebratory note, Winner's concerns about the role of technological somnambulism in reconstituting the conditions of human existence is but part of a lineage of twentieth century critical thought that is sceptical of, or as Ferre (1988) puts it, 'sombre' in its appraisal of, the 'bright visions' of technologies in social and political life (for example, Horkheimer & Adorno 1944, Heidegger 1953, Marcuse 1964, Gadamer 1976, Merchant 1980). More recently, technology figures prominently in contemporary social theory with regard to its influences on knowledge production and distribution, globalizing tendencies, detraditionalizing imperatives, risk factor paralysis and ecological despoliation (for example, Lyotard 1984, Feenberg 1991, Giddens 1990, 1991, 1994, Beck 1992, 1995, Germaine 1993).

Creeping below the propulsion of technologies into schools is the associated spectre of moral ambiguity, confusion, contradiction and ethical uncertainty of their effects--aspects of social, political and ecological life seemingly 'out of bounds' or 'on the margins' of debates about the tensions of postmodern deconstructionism and modern reconstructionism. Educational theorists, and presumably others working in the social and human sciences, are reticent to occupy the new void of 'acceptable' modes of behaviour or answer questions about 'right' forms of socio-environmental development. But, all too often for the critic, we hear that newer technologies are fun for 'learners' who are otherwise 'bored' by traditional pedagogical practices, or that computers are downplayed as

'...just another tool' for teachers and students. By and large, the educational good of such technology is taken-for-granted, or assumed from the outset as non-problematical. Not discussed, from a personal example, is the self-reference of two grade six girls to 'hot stuff' so that they '...might, at least be listened to' on the net. As 'innocent' as the expression 'hot stuff' might be, it signals for teachers and researchers a host of serious questions about the connections of technology, selfhood, identity formation, intellectual exchange and social relations. Educators' hesitancy to take a 'principled' stand on a host of postmodern issues should not excuse researchers from delving into the moral, social, political and ecological consequences of technologies.

The moral dimension, as analytically distinct, but inextricably implied in social, political and ecological intrigue with technologies, has largely escaped empirical scrutiny in educational research. At the social level of analyses of education, important and general insights about technology can be gleaned from various explorations of 'technotots', 'cyberpunks' and so on (Green 1994/1995, Smith & Curtin 1997/in press). Pronouncements like these demand 'fleshing out', a term used strategically in this essay to signal how phenomenological approaches in educational research can assist the task of explaining and critiquing the 'embodiment' and 'encoding' possibilities and problematics of technologies, as they influence human activity.

Phenomenology of technics

Don Ihde's work on combining phenomenology and cultural hermeneutics in the study of technics is pioneering. Because of his distinctive phenomenological bias, the term 'technics' is used frequently by Ihde to suggest human action employing artifacts to attain some result with the environment--a phenomenological example might be the human experience of fingers on a keyboard while eyes are on a screen; a cultural example might be the social structuring of experience by traffic lights. Notably, Ihde's connecting of phenomenological and cultural hermeneutics is consistent with past and recent attempts in social science to more fully elaborate explanations of social life (for example Dewey 1938, Giddens 1984, Bohman 1991).

More precisely, Ihde's (1991) phenomenology of technics explains the human experience of technologies in three interrelated programs. They warrant brief mention as a way of making clearer how Ihde's philosophical ecology 'gets at the big picture'. Ihde's (1990) first program considers the diversity of human-technology relations. A primary finding of this first program is *the non-neutrality of technologies*. Put simply, Ihde argues that all technologies have 'intentionality' and the task of the phenomenologist is to see how the 'intentions' of technology are ambivalent—that is, how they might withdraw, extend, or be amplified in

human experience. The debate about gun 'control' is a case in point. Some believe a gun is neutral and only responds to the user (who, therefore, should control himself); others believe a gun has a pre-emptive design and functions accordingly (and, therefore, needs to be controlled in addition to the potential user). Ihde's second program deals with the question of *technology as a cultural instrument*. Here, he is concerned with the way cultures embed technologies and the issue of the extent to which technologies are autonomous in shaping the 'fate' of the earth. Ihde's third program develops the '*pluriculturality*' of technologies as they exist in different parts of the world. Of particular interest here, for Ihde, is the distinctly postmodern preoccupation with 'image' technologies. He seeks, therefore, to map out 'the curvatures of high technology culture'.

Concepts of Ihde's that are key to the phenomenological analysis of the technics of kayaking are 'technics embodied' (material/somatic experience of technology), 'hermeneutic technics' (reading of technology), 'alterity relations' (otherness of technology), 'background relations' (indirect aspects of technology) and 'horizontal relations' (boundary limits of technology). The representation in Ihde's (1990, p. 21) phenomenology of a relativistic ontology deserves some attention because it signals the way in which the initial hermeneutic of kayaking is developed and presented. More precisely, if revealing the structure of experience is Ihde's task for phenomenology, his method takes as its 'primitive' the relationality of the experiencer to the field of experience, and hence the relativity of the ontology. The relationality of the human experiencer and the field experienced, as mediated by the various technologies shaping experience and effecting the world, as technics, is material. This materiality correlates with the materiality of the body—in Ihde's own terms, 'body materiality'. Not coincidentally, the body, as a site for inquiry, explanation and critique, is attracting considerable interest in a range of theoretical discourses due to its corporeality where material, historical and symbolic aspects of cultural capital are meant to reside. The body and its cultural embodiments, therefore, holds currency as a differential form of somatic understanding and probable site of production, colonization and reconstitution of various social processes. Thus, Ihde's phenomenological project asks researchers to make explicit the corporeal structuring of experience by the material 'concreteness' of the hardwares of technologies as they connect culturally with, or are embodied and perceptually encoded in, material, organic bodies.

Furthermore, and hopefully by way of sufficient introduction, Ihde's work identifies 'invariant features' of technology whose glossary includes terms such as autonomy, non-neutrality and intentionality, withdrawal and transparency, ambiguity and opaqueness, extensionality/intensionality and amplification/reduction tendencies. These features are used below to help interpret and describe the 'grounds' or technics of white-water kayaking, an

activity traditionally used in 'outdoor education' to promote personal and social development. More recently, kayaking is claimed by some to contribute to the development of some form of environmental ethic.

A hermeneutic phenomenology: technologically-mediated activity as embodied-relations¹

A kayak is a cocoon-like tool, an artifact manufactured to bring about technically certain human actions and consequences in pre-specified settings. The cocoon's yarn, or texturing, is fibreglass, or more recently, (almost unbreakable) plastic; the material transformation demanded by the need for the kayak-tool to resist physical damage by the rocks it passes by and eliminate time lost for repairs difficult to undertake in wet or cold conditions. The cocoon is completed by a neoprene spray deck whose sole purpose is to prevent water entering the cockpit in which the paddler is seated, thus minimizing its flooding and stopping. The paddler's body is also textured by a wet suit whose function is to warm-up a film of water soaked onto the skin, or more recently a dry suit that preserves the dryness of clothes and skin. Either way, the texturing of the paddler limits the constancy of the coldness-of-water, thus conserving bodily comfort and regulating emotional security and health. Paddlers are physically enveloped in and secured by the tool.

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 'playing' on and 'challenging' a way down-the-river. River as phenomenal space and time is instrumentally reoriented to human and social constructions of play and risk, while paddler conforms and is transformed by those tool-use-contexts. Spatially, kayaks and their artifactual means of propulsion (a double-bladed paddle) are designed in such a way that the paddler's visual field and range of physical movements are inclined predominantly forward--for 'stopper' to play on and perform and 'rapids' and 'snags' that impede the tool's imminent progress. 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 motion above-the-water and down-the-river. In playing-on-water or passing-by-water, vision is typically fixated on stoppers and eddies or rocks and snags that respectively signal gymnastic-like play/performance and 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 are determined perceptually by the paddler's ability to embody the characteristics and capabilities of the instrument. That is, the kayak, as the paddler reconstituted as individual-body-extended-as-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 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' (design above the water) or fulcrum-like 'rocker' (design below the water) 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 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.

The visible and invisible embodied-relations of paddler, tool and river should be more apparent, as should be how the activity/experience is intentionally arbitrated, overtly and covertly, by the technologies themselves. In short, there exists in the technics of white-water kayaking:

- the 'non-neutrality' of all technological 'tools' such as kayak, paddle, wetsuit. They have discrete attributes and functions which independently or aggregated identify,
- a regulative and normative 'intentionality' of the instruments in relation to human actions, interactions and environmental association, culminating in
- the use of technologies as 'tools' that powerfully transform time and reduce place and space, and in so doing,
- mediate the 'authenticity' or 'naturalness' of human 'experience', 'physicality', 'emotionality', 'environment', and interaction, by
- reducing or magnifying sensory/perceptual experience of the lifeworld or affordances of the socio/cultural-environment according to relative degrees of the tool's 'withdrawal', 'ambivalence', and 'ambiguity' in time, place and space, thus
- extending or contracting the body as an instrument in the lifeworld, leading to

- the technological transformation, or reconstitution of self as 'corrected' by technology in its intentionalities and capacity to arbitrate human, social and environmental experience.

In summary, technologies in kayaking play a central role in configuring human action and interaction, and hence, in reconstituting the self and the lifeworld in certain ways. To what extent other technologies used in education configure and reconstitute certain human perceptions and actions, social and political interactions and consequences, and ecological connections and disconnections, remains an open question that researchers might variously wish to engage.

Deploying hermeneutic phenomenology critically

One conclusion that can be drawn critically from the preceding hermeneutic phenomenology is how technology can intentionally arbitrate a form of 'naturalization' of the actor and his or her tools in interaction with, and relation to the 'environment'. Much of the work of technologies is hidden and taken-for-granted. If so, debate about the normative (and political) consequences of the technological naturalization of perception, action, self and agency is needed—a primary purpose of this inquiry. How that debate might proceed will depend to a large extent on the sorts of claims made about the educational merits or otherwise of white-water kayaking, the intuitiveness and interactivity of a pc, the learning value of email, and so on. Clearly, phenomenological accounts of the gamut of educational activities are required, possibly through the lens of the invariant features of technics proffered by Ihde.

There are at least two levels, if you like, at which a critical appraisal of the claims about kayaking might occur. The first is at the initial level of a hermeneutic phenomenology, as laid out above; the second at the level of a critical appraisal of the 'grounds' revealed in the initial hermeneutic. With regard to the first level, the key to any appraisal of claims lies in the question of what is said about the educational benefits of kayaking. There are reasons to accept that kayaking might enhance self esteem, provide exposure to relatively 'natural' areas, develop certain skills, allow meeting others and so on. On those grounds alone, the claims of personal and social development seem reasonable, although they certainly require further qualification and elaboration. More controversial are those claims that outdoor experiences lead to the development of an environmental ethic. These latter claims are highly problematic, given that they tend to non-critically presuppose unfettered access of human experience to an equally unconditional 'natural' nature (La Chappelle 1991). 'Deep' and 'naturally-given' educational experience, seemingly exempt from a consideration

of technics, is supposed to provide a critical lens for reflecting on the woes of society and the cultural templates underpinning the so-called 'ecological crisis', with regard to which modern progress, technology and associated educational myths are often denounced (Bowers 1993). Put another way, these claims for educational and environmental 'legitimacy' are predicated on a version of 'nature determinism'. Here, inner human nature and outer nature are assumed or reified as raw, pure and uncluttered by the complexities, historical contradictions, and texturing of the lifeworld. For nature determinists, one only need experience 'nature' or be 'immersed in it' for a period of time, calling up indigenous peoples' lifestyles, and, as if by osmosis or revelatory self-clarity understood as an 'ecological consciousness', an environmental ethic will be created, imagined or absorbed. But, as illustrated above, the phenomenology of kayaking identifies clearly how necessary technologies are to the activity of kayaking and how indelibly its technics inscribe the structuring of human and environmental experience.

To point out this contradiction of phenomenal grounds and rhetorical claims, or 'practice' and 'theory', may, however, be insufficient to deny or contest the development of a positive normative relationship between paddler, river and environment. Herein lies the possibility that educational research of a phenomenological persuasion can contribute significantly to the reparation of theory-practice problems in curricula oriented to human issues. In environmental education, for example, Fien (1993) concludes that the theory-practice gap is 'the' curriculum problem of critical theorising, while Robottom and Hart (1994) call for a more assertive role of research in closing the gap. In the broader realm of critical commentary, challenges have been directed to those presuming a raw or fundamental version of nature as providing a universal 'standard' or benchmark from which so-called 'cultural criticism' *should* proceed—for example, in experiential education by Kraft (1980), in outdoor education (Gough 1990), in leisure studies (Wyman 1982), in feminist theory (Soper 1995), in environmental ethics (King 1991) and in social theory (Bourdieu 1984). Beck (1995) sums up many of the concerns shared by these commentators. He is highly critical of the 'naturalistic fallacy' of environmental movements and, like Kraft, King, Soper and Bourdieu, questions the privileged origins of such discourses for their lack of worldliness and social ethics. Despite these counter readings, anti-technology nature determinists resolutely ignore the technological encoding of the very means through which they elect to escape technology in 'returning' to a nature they seek to romanticize, reinvent or re-enchant. At best there is an uneasy silence when presented with the preceding contradiction of 'grounds' and 'claims'. Nevertheless, pro-environmental kayakers might only need to soften their anti-technology rhetoric, so that there may be a closer connection of theory and practice. On this point, Ihde (1990) is most telling in his criticism of the

illusions of those who, 'desiring' a total transparency of technology, reject it at the same time as accepting that it offers us 'power' to transform raw experience in 'inhabiting' the earth.

A second-level critical phenomenology could locate the initial interpretation of kayaking, or various classroom technologies, in the broader historical, social, economic, environmental and political contexts of the phenomena being inquired into. Such a broader account is not possible here, but paralleled elsewhere in a detailed cultural critique of rockclimbing (Payne 1994).

Phenomenological inquiry in education, technology and morality: the interfaces of culture and action

The preceding discussion should make more apparent the possibility that human perception, action and interaction are textured or enframed in human technics by the further possibility of universalizing, individuating and subjectifying intentionalities of technologies. Technology and the invisibility of risk is only one theme that might be amplified by a phenomenological philosophy. A quick reflection on how personal computers in academics' offices have changed face-to-face human interaction, modes of communication and forms of social relationships and environmental association should make more plausible this general conclusion about the relation of technics to the emerging issue of the autonomous, but intentional arbitration of the moral domain in human agency.

Research is needed into a range of educational activities to reveal the embodied-relations of various effects of technologies. Implications for questions about sociability, physicality, gender, class, ethnicity, age, and so on need to be examined. The method of this essay has been to create a dialogic of philosophical elaboration and grounded readings of one of many human activities reconstituting the moral, social, political and ecological dimensions of individual action and the structuring of culture. Of these dimensions, the moral has been highlighted because of its 'hidden' nature within the 'invisibility' of technics and because it is heuristic to the issue of socio-environmental ethics, a personal interest of the author. In sum, what a phenomenological philosophy can do in educational research is to reveal for critique the complex and contradictory nature of human, social and environmental experience as mediated in technics through technologies.

In the light of the alleged connection of technics and the universalizing tendencies of individuation, subjectification and de-naturing, a concluding question for researchers and educators is to explore more fully the possibility that education is now more than ever contributing to the 'technological naturalization of being' and the 'technological disassembly of the moral self'. If the preceding

discussion reveals yet another 'truth' not yet fully understood or considered, given the dialogical method employed, educational research has a major task in demystifying for learners, teachers, parents, curriculum writers and policy makers how technologies influence or encode human activities and shape the human (and environmental) condition. Having made more visible the invisibility of technics, what is then at stake is the deliberation and adjudication of the moral and social conventions that are being reconstituted in and by education.

Conclusion

How might educational researchers tackle the demystification of the interfaces of culture and technology? While the hermeneutic phenomenology of kayaking focusses on the activity of kayaking itself, in particular the embodied relations in the technics of kayaker as moral actor, kayak as artifactual and symbolic tool, and river as 'environment' encoded, a critical phenomenology if developed here would extend those analytical 'boundaries' or categories for inquiry into broader temporal, spatial and symbolic contexts. Thus, a phenomenological philosophical analysis might be further attained through the appropriation of other philosophical and socially theoretical discourses. Hence, elsewhere 'a critical ecological ontology' has been developed as a framework for educational inquiry' (Payne 1993, 1995, 1997).

The specific intention of this essay has been to lay out how phenomenological readings of kayaking can explain the risk, as potential 'cost' to moral, social, political and ecological life, of the individual and collective embodiment of technocultures. This first 'hermeneutic' aims to provide a 'grounded' description of the work of technologies. On this 'objective' reading alone, there is reason to conclude that the artifactual 'hardness' of technologies withdraw in their moral implications--that is, moral agents remain largely unaware of the embodied-relations of self to kayak, self to river and so on as configured or textured by the technologies in use. My intention is to reveal 'new' knowledge 'objectively', but hermeneutically, disclosed in this reading (Giddens 1989). While not being overtly critical, this 'new' knowledge does, in fact, serve a critical dimension--the undoing of the 'paralysis of the critical will', an affliction of late modernity also noted by Giddens. Such an affliction, for example, has particular application to discourses about outdoor/environmental educational activities like kayaking.

What is needed to supplement this, as I have suggested, is a more dialogically developed second 'critical phenomenology' which shows how the initial hermeneutic can service political work in contesting certain rhetorical, theoretical or ideological presumptions made about such educational activities. I leave that task for another occasion. Together, such phenomenologically-driven, philosophically developed perspectives, as an approach to educational inquiry

into human and social experience in technologically-replete postmodernity, will hopefully ring some of the alarm bells Winner hopes for. Thus, the central message of this essay for educational researchers is to provide some initial conceptual apparatus and practical illustrations of how phenomenologically-inspired inquiries can account for the invisible moral and ethical work of technologies. To be sure, while taking on the moral dimension of technologies the purpose is not to moralize; rather, it is to introduce another vantage point for educational research from which description, explanation and criticism might proceed.

Some caveats. The significance of foregrounding the possibilities for educational inquiry of phenomenological philosophy lies in the assumption that other, more conventional research methodologies have difficulties in discerning the moral work of technologies. Although hermeneutic phenomenology has interested some educational researchers, most notably Max van Manen (1990), the orientation taken here places less emphasis on the poetic representation of experience as 'lived', in the manner that van Manen believes is necessary to evoke responses from his readers. Indeed, in focussing his method on revealing the structure of experience, Ihde (1990, p. 21) is clear that 'the idea of *experience* is not that of either common-sense understandings or of the standard misrepresentations of phenomenology as subjective'. Like van Manen, however, the term 'hermeneutic' is used in this essay as an initial line of defence against critics of phenomenology, in that the 'facticity' (Merleau-Ponty 1962) of 'grounds' is open to conjecture, not least of all because of questions about the representation of existential experience (Adorno 1973). Given the moral and ethical focus of this inquiry, the convergence of the interpretive and critical moments of the phenomenological approach is acknowledged as somewhat 'conjectural', but as systematic. In the absence of alternative methods, such a 'philosophical' approach to 'grounded' educational inquiry is seen as useful and heuristic to the possible development of 'more' empirically 'sound' studies.

Note

- ¹ The following 'reading', or hermeneutic phenomenology, of kayaking has been constructed with the assistance of a number of experienced kayakers with variable motivations for engaging in kayaking. In searching for 'empirical soundness' to the philosophically grounded methodology employed here, this reading passed through a number of developmental stages to ensure maximum objectivity. A first draft speculative interpretation developed by the author was carefully scrutinized by a highly experienced instructor and leader of white-water kayaking. A subsequent redraft was critiqued by two

other experienced kayakers culminating in the version appearing here. In all, four drafts led to this final representation, noting that it could have been significantly expanded. It is also important to note that there is a mainstream practice of white-water kayaking, typified as an 'ethos' of kayaking and as a microcosm of the 'culture of adventure' activities (Payne, 1994). This ethos needs to be differentiated from related activities such as 'canoe journeying' which might differ in some or many respects to the ethos of kayaking. It became obvious in constructing this reading that the explanations accompanying the hermeneutic phenomenology should differentiate a 'play' and 'risk/adventure' motivation in mainstream kayaking. This differentiation is based largely on the relative degree of 'competence' each kayaker attributed to his or her views about the mainstream 'ethos' of white-water kayaking but which should not detract from the strong inscription of technology in both forms.

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