



Affective Approaches to Environmental Education: Going beyond the Imagined Worlds of Childhood?

RACHEL GUREVITZ

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ABSTRACT *This paper explores the claims of recent research that suggests that more affective forms of environmental education, drawing upon the contributions of the arts (e.g. creative writing, poetry, art, music and photography), can engage with children's emotions more directly than can approaches based on scientific knowledge. This, in turn, may provide a better route for encouraging individuals to engage in more environmentally sustainable behaviours. The paper challenges some of these claims by considering the ways in which they draw upon socially constructed notions of childhood and nature. The development of environmental education in the UK provides the primary context within which the influence of these social constructions on affective approaches to environmental education is illustrated. These findings suggest that further research and practice are required to develop approaches to environmental education that better reflect a range of children's own environmental experiences.*

Introduction: What Kind of Environmental Knowledge?

Within the field of environmental education research, an ongoing body of work has explored the question of whether different *kinds* of environmental knowledge might offer more or less effective foundations for encouraging individuals actively to engage in more environmentally sustainable behaviours (Chawla, 1988, 1998; Gigliotti, 1990; Dijk and Stomp, 1996; Job, 1996; Morris and Schagen, 1996; Palmer, 1998). One model of learning has largely dominated the field of environmental education throughout the history of the discipline. This model is illustrated in Figure 1 (Finger, 1994). The model draws substantially on cognitive theory and posits that the accumulation of knowledge about environmental issues will help to foster concerned attitudes among individuals and

Rachel Gurevitz, Department of Geography, School of Social Sciences, University of Sussex, Falmer, Brighton, Sussex BN1 9SN, UK. Correspondence c/o 16, Trevelyan Crescent, Kenton, Harrow, Middlesex HA3 0RL, UK. E-mail: GurevitzR@mailcity.com

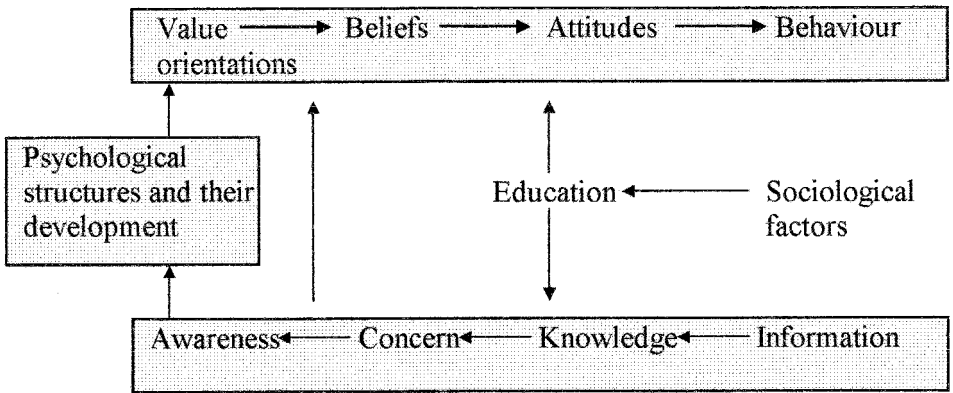


Figure 1. The dominant framework in environmental education. *Source:* Finger (1994, p. 142).

that this, in turn, will engender behavioural shifts which reflect these environmental concerns.

Although some research has demonstrated that the linkage between the elements in this model cannot be assumed (Finger, 1994; Ungar, 1994; Zimmermann, 1996), and other research has begun to question the usefulness of constructing environmental education programmes with reference to the model (Gurevitz, 1997, 1999; Chawla, 1998), it continues to provide the basic framework for almost all environmental education programming, policy and research. In this introduction, I consider the arguments posited in environmental education research about the differences between *scientific* or *cognitive* environmental knowledges and *affective* or *emotional/experiential* knowledges. These differences are presented as an important context within which to consider the role of the latter knowledges in environmental education, providing the central focus for this paper.

Historically, and particularly in relation to school-based environmental education (the primary locus of environmental education in the UK and elsewhere), *scientific* knowledge of the environment—an understanding of ecological processes—has been elevated as the dominant form of environmental knowledge, which provides the best starting point in environmental education (Boyes and Stanisstreet, 1993; Leach *et al.*, 1995, 1996). However, there is a growing body of critical research and commentary on environmental education programmes that emphasise scientific knowledge of environmental systems. In particular, three problematic issues can be identified.

- (1) Research that has investigated the dominant knowledge–attitude–behaviour model underpinning most environmental education programming and policy, using scientific knowledge as the primary way of testing and measuring the knowledge of participants in the research, has often produced unconvincing results (e.g. Cox, 1993).

Although some research has demonstrated a linkage between scientific knowledge and environmental attitudes (e.g. Lyons and Breakwell, 1994), other research has suggested that such knowledge may only raise general awareness and provide individuals with the confidence to voice opinions on environmental issues (Gigliotti, 1990). A knowledge-based approach may not necessarily affect deeply held values of the kind that might drive an individual to alter their behaviour (Fien and Slater, 1981; Gigliotti, 1990).

- (2) Some critics have argued that an emphasis on *scientific* understanding of environmental issues offers only a singular, technocentric approach to analysing and solving environmental problems. This approach, in particular, is regarded by some as inherently incapable of engaging citizens in reflecting upon their values or personal behaviour. Job (1996, p. 31) identifies this issue:

Education *about* the environment [i.e. scientific knowledge] is generally interpreted as promoting a technocentric perspective. There is an assumption that by knowing more clearly the functioning of the earth as a machine through positivist scientific and economic approaches, appropriate environmental management, often with the aid of new technology, can obviate harmful human impacts without major redirection of political, economic or personal value systems.

- (3) It has been argued that approaches to environmental education that emphasise the importance of understanding complex and uncertain ecological processes can be frightening and alienating for many children (and adults) (Burgess *et al.*, 1988; Harrison *et al.*, 1996). Therefore, it is possible that an emphasis on teaching this kind of environmental understanding may actually deter individuals from actively engaging with environmental issues, as the problems seem too large and overwhelming for any one individual to be able to have an effect on these problems.

The suggestion that the school curriculum needs to provide a space where education enables each individual to reach their own conclusions, based on the emergence of their own values, has led to debate about the qualitative differences between *cognitive knowledge* and *affective knowledge* and their potential contribution towards the goals of environmental education (behavioural change).

[B]y 'Affective Education' is meant that part of the educational process that concerns itself with attitudes, feelings, beliefs and emotions of students (Lang, 1996, cited in Garratt and Robinson, 1997, p. 4).

In other words, affective education seeks to tap into the ways that we come to 'know' our environment through our emotional responses to it, rather than our scientific understanding of how processes and systems in our environment work. Underlying this approach is a belief that our emotional responses and values guide our actions and opinions on environmental matters in a way that a potentially more detached, scientific knowledge may not be capable of achieving. Within formal education in the UK, affective approaches are emphasised through the contributions that more arts-based subjects can make to environmental education (which has the status of a cross-curricular theme in the National Curriculum for England and Wales, rather than existing as a topic in its own right). These include activities such as art, music, poetry and creative writing.

Nevertheless, determining precisely what the ramifications of a shift in emphasis from cognitive to affective knowledge in environmental education will be is not a simple matter. Hsu and Roth (1998, p. 242), reflecting on the formative experiences of teachers in Taiwan, conclude:

Unlike cognitive environmental literacy variables, affective environmental literacy variables are particularly difficult for many environmental educators to address because the affective variables are often not associated with formal environmental education. For example, the development of environmental sensitivity appears to result from an individual's persistent contact with a relatively pristine environment at an early age, either alone or with a few friends/relatives, from some experiences

with severe environmental degradation or some life experiences with role models such as parents and teachers.

This finding is also emphasised in the 'emergent environmentalism' project (e.g. Palmer *et al.*, 1996, 1998) researching the formative experiences of environmentally concerned individuals internationally. Evidence has been gathered to illustrate that environmentally concerned adults tend to recall aspects of their childhood experiences of natural environments that reflect affective, emotional responses far more than the acquisition of a scientific understanding of the environment from school lessons (Palmer, 1993; Palmer *et al.*, 1996; Chawla, 1998).

An important point to note is that many of the researchers who have suggested that affective knowledges are more closely related to the kinds of environmental values that might encourage more environmental action have carried out their investigations by talking to *adults* about their *formative experiences* (Gough, 1999). These include particular memories of certain landscapes and environmental experiences, and also encompass memories of formal education activities, particularly of enthusiastic teachers. However, there has been very little research about the daily experiences of children themselves. While a body of work exists that considers the environmental activities of children (e.g. Hill and Michelson, 1981; Moore, 1986; Jones, 1987; Bloch, 1989; Matthews, 1992), there has been relatively little work to investigate how children value and experience their environments from their own perspective since the seminal work of Hart (1979).

If affective education is designed to draw upon children's emotional responses to their environment more directly, yet relatively little research is available to demonstrate what the foundations of this kind of environmental experience might actually look like for contemporary children, then a question is raised about the nature of the foundations of current affective educational programming. To what extent do affective educational programmes in environmental education build on the romanticised memories of adults, drawing upon rose-tinted recollections of an idealised childhood? It is necessary to examine the ways in which adult perceptions of childhood relationships with natural environments may, in part, be saturated with socially constructed concepts of children and nature that have evolved over centuries. These social constructions are an important part of the story of the evolution of the discipline of environmental education and may, therefore, continue to influence how we teach children about the environment today.

Having summarised the debate on environmental knowledges that provides the context for this paper, I proceed by considering some of the assumptions and claims made by advocates of more affective approaches, illustrating the extent to which these approaches are saturated with some paradoxical beliefs about children and their relationship with nature. In order to illustrate a coherent set of ideas finding expression in historical social developments that have, in turn, provided a context for the development of environmental education, I will focus specifically on the UK as the primary context for this paper. However, many of the arguments presented here on social constructionist approaches to understanding childhood and nature apply more generally to dominant constructions that share much in common with other parts of the Western world. A number of discussions on affective and cognitive/scientific educational programmes are to be found in research from the USA, Canada, Australia, New Zealand and other parts of Europe (e.g. Szagun and Mesenholl, 1993; Hanna, 1995; Paraskeropoulos *et al.*, 1998; Chapman, 1999). A particular set of social constructions emphasising the significance of 'wilderness', as opposed to 'countryside' in the UK, would be a more appropriate focus for deconstruction in many of these countries. However, the ideologi-

cal assumptions that arise from a set of beliefs about the relationship between children and nature remain very similar in a number of other Western contexts.

The 'Natural' Child

Many people still seem to believe that goodness comes to children who simply have contact with nature. It is hard for a Western urban dweller to discuss this without enormous bias, for the entire culture and its literature are saturated with romantic notions of a special relationship between children and nature. Paramount among the conceptual issues that cloud the area is the notion that children are 'closer' to nature (Hart, 1997, p. 17).

The roots of a romanticised social construction of the child-in-nature are perhaps most famously associated with the poetry of Blake and Wordsworth (Williams, 1985; Cox, 1996), but are most clearly articulated in Jean Jacques Rousseau's *Emile*, published in 1762 (Sommerville, 1990). Rousseau advocated the need to allow children a 'natural' childhood, free from the constraining directions of adults to socialise them until they were deemed to have reached an appropriate age when they could understand and respond to such training (aged 12 in Rousseau's account) (Sommerville, 1990).¹ Rousseau argued that premature adult intervention denied children the right to their childhood (Maccoby, 1980; Hendrick, 1990; Archard, 1993; Cox, 1996). Further, nature was identified as the source of all good, while human institutions were aligned with the introduction of evil into the world (Sommerville, 1990).

In the UK, multiple constructions of childhood emerged in popular discourse as Romanticism gave way to more evangelical concerns about the susceptibility of children to the evils of the rapidly industrialising urban environment (Hendrick, 1990). There was a philanthropic concern for the living conditions of the urban poor (e.g. Mayhew, 1968; Booth, 1969; Keating, 1976; Williams, 1985), the working conditions of children (and the subsequent introduction of a universal school education) (Hendrick, 1990; Archard, 1993) and the health implications of urban living conditions for all. One of the most active campaigners was Octavia Hill (who subsequently had a role in establishing the National Trust), who fought hard to preserve remaining green spaces within cities on the basis of their contribution to the quality of life for all city dwellers (Parry and Scott, 1998).

One cultural response to rapid change and industrialisation can be identified in some of the literature to emerge in the UK in the late 18th and the 19th century (Williams, 1985). Carpenter (1985), for example, analyses the texts of children's literature and identifies the romantic, rural idyll as the setting for the imagery of childhood, harking back to both a 'golden age' and a lost paradise in books such as *The Wind in the Willows* and *The Tales of Beatrix Potter* (see also Squire, 1992).

The Victorian era saw the development of 'nature studies' as part of the educational curriculum, linking an appreciation of nature to the notion of a British citizen, trained to value the landscapes of our national heritage (Steers, 1944; Matless, 1997). This reflected a growth in countryside excursions by the urban dweller, facilitated in the early 20th century by developments in public transport and the introduction of the motor car, as a popular leisure activity for all ages (Matless, 1997). In the 20th century, these interests were further encouraged by the development of 'rural studies' as part of the school curriculum. Organisations such as the Council for the Promotion of Field Studies (later renamed the Field Studies Council), founded in 1943, were established to support these developments (CEE, 1986). Such developments in education were the precursors to what became known as environmental education in the late 1960s, when educational-

ists and conservationists met at the 'Countryside in 1970' conference, held in 1965 (Sterling, 1992).

Therefore, some of the earliest proponents of environmental education in the UK drew on these multiple constructions of children and nature. On the one hand, the innocent child was associated with nature as the locus of a *natural* kind of childhood, where children should be free to explore and learn through their own experiences. However, the realities of industrial Britain, and beliefs about the corruptible tendencies of easily led children, meant that children had to be taken to nature and *taught* how to value it. This was seen as an important part of their training to become good British citizens.

These multiple constructions of the child-in-nature still have resonance today (James and Prout, 1990). The imagery of Rousseau's idealised, free-spirited child became fixed in fiction, providing one powerful source through which adults (parents) would reconnect to their past, 'lost' childhood through the retelling of stories such as *The Tales of Beatrix Potter* (Squire, 1992). The 'natural' child came to represent the self that contemporary adult society had lost and, equally tellingly, the child was situated in the timeless space of the rural landscape:

For all its modernization, the nostalgic imagery of childhood refers overwhelmingly to a harmonious and comfortable world before industrial civilization, when plenty did not depend on work or wealth. A rural idyll is pictured on milk cartons, bread wrappers, supermarket labels, advertisements for foodstuffs, and in high-gloss magazines about country living ... Children are depicted in a countryside unpolluted by agri-business or nuclear fallout, cultivated by medieval means and inhabited by friendly little animals. Their saucer eyes link past and future, and they appear as a precious treasure in a corrupt world. In the constant renewal of childhood the lost harmonious past can remain forever present and promise a future in which innocence is regained. In a world dominated by commercial imagery, a child can be shown standing outside commerce; in a world of rapid change, a child can be shown as unchanging; in a world of social and political conflict, a child is untainted (Holland, 1992, pp. 14–15).

Holland's analysis of the world of childhood found in printed advertising imagery provides a powerful illustration of the continuing salience of the idea of the child-in-nature. This cultural representation is regarded as a social construction which reveals more about the needs of the *adult psyche* in times of rapid change and uncertainty:

The fact remains that the English literary exploration of childhood is no more than two centuries old, and that this exploration has, in many ways, been an exploitation of childhood as a symbol for what is deemed to be missing from and degenerate about adulthood (Archard, 1993, p. 39).

Parallel beliefs and imagery can be identified in the evolution of environmental education as a discipline. In addition to the desire of environmental education to teach children how to value nature, the romanticised belief that children offer a future for environmental concern through their innate closeness to nature continues to co-exist as an integral part of the ideological foundations of contemporary environmental education. For example, Ward (1978, p. 22) considers children's sensory perceptions of their environment to be much more intense than those of most adults:

This capacity for vivid sensory experience, commonplace among children is an aspect of the world that the adult has lost, not just because the senses are dulled by

familiarity, but because there is an actual measurable physical decline in sensitivity to taste, to smells, to colour and to sound.

Ward illustrates his assertion with evidence from cognitive mapping studies in the UK, which demonstrate that infant school children (aged 5–8; National Curriculum years 1–3) include many human references and natural features in their mapping of a locality, whereas junior school students (aged 8–11; National Curriculum years 4–6) have been shown to include such features only rarely and senior school children (aged 11–18; National Curriculum years 7 and above) hardly at all. However, as children continue their passage through the formal school system, it might be expected that their representations would begin to conform to recognised representations of ‘a map’ in which street layout and key buildings are emphasised over the details of local nature (aside from specific spaces such as a park, woodland or a body of water); a case where the methods of the research may have had a considerable effect on the findings.

Similarly, Lynch’s (1978) seminal cross-cultural study of children in cities revealed the almost universal valuing of trees by all children, although the basis of the value is not clearly discernible. Do trees represent a child’s awareness of and respect for the growth of vegetation, or does interest in them stem primarily from their appropriateness for climbing, swinging and imaginative play? Schneekloth (1989) suggests that children will learn responses to natural vegetation which reflect wider cultural values. Such elements of the physical environment are usually regarded simply as ‘background’ unless individuals are ‘taught’ a different kind of environmental consciousness. Hart (1997, pp. 18–19) also notes:

Anyone who has seen children stoning crabs on a beach or burning cigarettes into frogs knows that contact with nature alone is not sufficient for a child to develop understanding of, and a caring relationship for, the natural world.

Hart’s observation also draws attention to yet another tradition that continues to influence the way that adults mediate children’s experiences and understanding of natural environments. Parallel to the romantic visions of children being at one with nature is an altogether darker construction that children cannot be allowed to be too close with nature, lest they become too wild, eroding the foundations upon which they will be trained to enter civilised adult society.

Children introduce disorder and pollution into everyday life, and this theme runs alongside the idyllic beauty of childhood. The bodies of young children are leaky; they do not respect established boundaries ... In posing questions about rationality and order, the image searches the margins of humanity itself. Children are said to be like animals, close to madness or the supernatural (Holland, 1992, p. 18).

James *et al.* (1998) suggest that the origins of these constructions of childhood can be traced back to the notion of ‘original sin’. Hendrick (1990), for example, argues that the philanthropic calls to remove children from the factory environment in the 19th century and the subsequent need to socialise and civilise children through education drew on these traditions. Tracing back even further, the writings of John Locke (1632–1704) conceptualised children as ‘blank slates’ onto which adults must imprint preferable behaviours and ensure that potentially innate negative ones are subjugated (Maccoby, 1980; Archard, 1993). This attitude was critiqued by Rousseau in *Emile*, but the enduring power of these constructions demonstrates the ways in which we arrive at the contemporary position where contradictory imagery is brought into play *ideologically* (nature as

both freedom and that which must be tamed), *spatially* (the rural idyll and the abyss of the city) and in *educational* practice (child-centred and top-down pedagogic practices).

It would appear that a somewhat confusing paradox results from this debate. On the one hand, children have been ideologically placed closer to nature (their sensory perceptions perhaps being greater than those of adults), their innate sense of 'at-homeness' with such environments placing them in a space of innocence, beyond the evils of society. On the other hand, children cannot be left to their own devices when outdoors in natural spaces; they require adult guidance so that they will learn how to value such contact and behave with environmental sensitivity. This paradox is played out in the attempts at developing more affective educational approaches to environmental education. While making substantial claims to build upon the natural feelings that children have towards nature, many of these educational activities are teaching and emphasising particular ways of valuing and experiencing natural environments that are profoundly *adultist*.

Learning How to Feel

One of the classic texts on the importance of nature for children was a paper written by Cobb (1959), 'The ecology of imagination in childhood'. This work was later developed into a book of the same title (Cobb, 1977). Cobb developed a theory based on the complex interplay of self and environment, suggesting that mental health required the ability to use the imagination creatively and that nature was a vital resource in this process. Her ideas were based on a combination of observations of children at play, and the analysis of hundreds of autobiographical recollections of childhood by adults (both contemporary and historical), carried out over a period of 20 years. Although Cobb drew on Wordsworth, among others, to argue that nature provided the wellspring for creativity, the placing of these ideas in a broader psychological and experiential framework took her work beyond the realms of pure romanticism (Hart, 1979).

Cobb's writing has influenced a great deal of educational work that focuses much more specifically on children's experience of nature (e.g. Moore, 1986; Schneekloth, 1989; Adams, 1991; Engel, 1991). Moore (1986, p. 8), for example, quotes Cobb's interpretation of the meaning of play:

... a sort of fingering over of the environment in sensory terms, a questioning of the power of materials as a preliminary to the creation of a higher organization of meaning.

Cobb (1977, pp. 28–29) believes that 'Nature for the child is sheer sensory experience'. In her book she develops an argument which highlights the importance of the aesthetic qualities of nature:

The child's ecological sense of continuity with nature is not what is generally known as mystical. It is, I believe, basically aesthetic and infused with joy in the power to know and to be (Cobb, 1977, p. 23).

Affective approaches to environmental education, seeking to incorporate aspects of children's relationships with nature in informal contexts (i.e. in their play) into more formal, school-based educational activities, have generally focused on an aesthetic understanding of nature. For example, Engel (1991) carried out educational research in a school in the USA with 7-year-old children. She noted the children's playground behaviour prior to the educational exercise: 'When the seven-year-olds in this study go outside to play at recess at their school, they seem to experience the outside world as a

place of potential play' (Engel, 1991, p. 44). The exercise that Engel designed consisted of taking children out into the same playground space and asking them to walk around and 'observe with all their senses. They were taken aback and unsure exactly what was involved in this activity. They did not know what to DO' (Engel, 1991, p. 44).

After some time being *guided* in this activity, the children then returned to the classroom and wrote lists of what they saw, heard and felt. When the children returned to the playground to repeat the exercise a second time, they appeared to have gained a much better sense of what was required. The children's writing reveals a number of dimensions of their experience of the environment which go well beyond the play function of the space: they experience themselves in relation to the environment (e.g. wishing to climb a tree); aspects of the environment evoke feelings (e.g. snow is hard and cold); descriptive terms are included (e.g. the snow had footprints in it); different observations are organised (e.g. the water on the branches is frozen and covers the bark); and the environment is experienced in relation to the self (e.g. the snowbanks are bigger than me) (see Engel, 1991).

In her concluding comments on these findings, Engel (1991, p. 45) suggests the value of teaching children to experience their environment with an 'aesthetic orientation':

It can make children feel closer to, and more situated in their environment, it can expand and deepen aspects of the environment they know about, it's a powerful source of material for creative work, and it stretches children's symbolic capacities.

In this example, the children's use of a space for play is acknowledged but there is no further exploration of children's place feelings and environmental experience in these terms. Rather, the educational activity aims specifically to develop the children's aesthetic awareness as a beneficial way of deepening their relationship with, and awareness of, their environment. The benefits of these approaches cannot be easily tested over a period of time; therefore it would appear inevitable that there is a degree of subjectivity on the part of the researcher in asserting the value of these activities. The research, having taken the benefits of an affective approach to environmental education as given, is primarily concerned with assessing the abilities of particular educational activities to tap into or draw out aesthetic responses to the environment.

Creative writing, art, poetry and music have all been employed in a variety of research settings, and have all been demonstrated to facilitate this kind of affective education (Adams, 1991; Hansen-Moller and Taylor, 1991; Simmons, 1994). For example, Adams (1991, p. 20) highlights the importance of experiential learning within formal education: 'experience in itself is insufficient. To learn from that experience we need to reflect upon it'. Art education is identified as a particularly appropriate discipline within which sensory experiences can be explored and reworked to derive knowledge from them. With regard to environmental education, Adams (1991, p. 21) suggests:

Certain kinds of art-based study can encourage contemplative, reflective thought, which can extend environmental awareness, an essential basis for environmental understanding. Such study is concerned with exploring our relationship with the environment ... It is not merely passive absorption or simply active response, i.e., reaction to environmental stimuli. It is a creative act—a reworking of experience in order to make sense of it.

Adams proceeds to provide brief overviews of a range of formal educational activities that have utilised art in projects designed to raise environmental awareness. These include school grounds projects, history projects related to local museum visits and projects about local redevelopment of city areas and about change in an old industrial

area in Wales. The projects are described but in-depth reviews and assessments of each project are absent from the paper. Adams (1991, p. 28) concludes:

Emotional engagement is important in developing a sense of place. A place is part of the environment that has been claimed by feelings. Art-based study offers a way of knowing distinct from other disciplines. It not only emphasizes the importance of sensory experience but is one of the few subjects in the school curriculum where an affective, subjective approach to study is valued and the relations of the world of the self with the world of objects is continually explored. An important function of art in education is to promote a feeling response, to develop empathy.

Adams's work also provides a review of arts activities that are better suited to the fostering of affective knowledges than some disciplines more traditionally associated with environmental education, such as science and geography. The value of the approach is suggested implicitly in the claim that empathy enriches environmental experiences. Whilst I am not trying to refute these claims, what are particularly important in these studies are the kinds of affective responses that the educational exercises are designed to draw out.

In both Engel's (1991) and Adams's (1991) research, the importance of outdoor environments in children's daily play is acknowledged. Yet the educational activities specifically encourage children to have an aesthetic engagement with their environment. Olwig (1989), however, argues that there is a profound difference between the way many children and many adults experience their environment. For example, he suggests that, whereas adults conceive of nature as a physical presence (e.g. a green, bushes and landscaping), children experience nature as a *potentiality*. He goes on to state that this 'requires that priority be given to "the world" the small child constructs, on his or her own premises, out of nature, for the purposes of play and socialisation' (Olwig, 1989, p. 21). Olwig (1989) also uses more creative elements of the curriculum (poetry) to investigate the place experiences of children, but does so by drawing on their own experiences without directing them to consider aesthetic elements which might not 'naturally' occur to them. The ways in which natural elements in a locality are valued by children for imaginative and social play emerge strongly from Olwig's work, an important finding that I will return to shortly.

Hansen-Moller and Taylor (1991) critique a pedagogic strategy that they have observed at nature interpretation centres in some national parks and nature reserves in Denmark and the UK: such activities inform children about the natural elements in the sites but do not engage them in experiencing the landscapes directly for themselves. This pedagogic strategy is described as an 'expropriation of experience', where the value of the nature and the proper way to experience it have been predetermined. In contrast, Hansen-Moller and Taylor's (1991) research involved the use of poetry and music to engage 8- and 9-year-old children's emotions more directly in response to a visit to a woodland. These media were used to direct children to experience the wood by representing sounds, textures and feelings. Given Olwig's (1989, 1991) findings and those of others who have directly investigated children's daily environmental experiences (e.g. Hart, 1979; Moore, 1986), to what extent might these methods, used by Adams (1991) and Engel (1991) too, also represent an expropriation? If children are more aware of the potential of natural spaces for play and peer activity, and rarely highlight aesthetic qualities unless an activity specifically demands it of them, then it could be argued that these exercises more accurately represent the socialisation of children to recognise adultist aesthetic values than a heightening of a child's own awareness in their own terms.

Listening to Children

Payne (1999), in a critique of ‘significant life experience’ research (e.g. Palmer *et al.*’s (1998) ‘emergent environmentalism’ work), highlights a particular problem found in some of this work. He asks to what extent a common finding that highlights the value of ‘contact with nature’ as a formative experience for many adult environmentalists provides enough of a foundation on which to develop environmental education programmes. In particular, he notes that it is simply not credible to assert that a specific environmental experience or stimulus will engender a positive environmental attitude or behaviour for an infinite range of individual personalities, regardless of culture or context. In light of the analysis that I have presented in this paper, I would add that, in addition to this key consideration, we must also ask to what extent we really understand and know how to build on the daily environmental experiences of children themselves. Or are we designing programmes that teach children how to see and experience their environment with adult eyes? And will this approach enable educators to influence the environmental attitudes and behaviours of their pupils if it does not also engage with a range of the children’s own ways of experiencing and enjoying outdoor environments?

In my own recent research (Gurevitz, 1999), I worked with 10- to 12-year-old boys and girls on the Children’s Environments Project, in a suburb of London and a village in south-east England. The aim of this project was to explore a wide range of children’s daily activities and experiences in the context of their home and their locality and on holiday. By looking directly at the everyday, mundane settings for ‘behaviour’, conceptualised as broadly as possible, I sought to identify a much wider range of ‘influences’ on this behaviour than the commonly identified ‘knowledge’ and ‘attitude’ factors considered almost exclusively in most environmental education research. As in the studies by Olwig (1989, 1991), by listening to the way that children described their own activities and pleasures, and the way that they represented their daily experiences through an autophotography project and a holiday collage, aspects of play and social interaction were highlighted as particularly significant for many of these children. It is not possible to summarise all the findings from the research here, but three short examples are provided as illustrations of important factors that contribute to children’s significant daily experiences, highlighting areas of experience that are rarely acknowledged in environmental education research. These suggest that the set of daily experiences important to children, while they are still children, is different from that emphasised by most affective environmental education programmes.

Different children had varied opportunities to be outside in open space, depending on the opportunities that the specific environment of their immediate locality offered them, and this impacted significantly on opportunities for play:

R.G.: So when the two of you [best friend] are together, you can basically go anywhere you want?

Sally: Go out anywhere, yeh. ‘Cos around here there are a lot of greens, so we can go there. With Karen, in [different village], there’s no greens there, there’s just a big hill which we can ride down, but most of the time at Karen’s we just play on the computer (Village child, lines 54–64).

Many of the children in both the village and the suburb emphasised that the summer was the best time to play, not only because better weather meant that they could be outside more, but also because being outside meant that they could meet up and play with a large

group of friends, whereas they were often only allowed to see one friend at a time in their home. This provides one reason for a child to value being outdoors that is seldom considered in environmental education research or practice.

Further, this short excerpt highlights another important factor that helped to explain the kinds of activities that were regarded as significant for the children: the opportunity for peer group interaction. However, the significance of this factor varied depending on the personality of the child; some were more likely to engage in an activity and enjoy it only if it provided an opportunity to make friends, whereas others had difficulty in feeling accepted in large peer group environments and preferred activities where they could use their own imaginations and develop skills by themselves, or as part of an activity involving a parent:

Adam [talking about playing in football teams]: You make a lot of friends, like people you don't know and 'cos like, I know, I know most of them from my Sunday team ... We get, you get a lot of chat in football. So it's alright ... So if I didn't do football I wouldn't know a lot of people. I wouldn't know all those team mates that I've got. So I do quite well with friends and that (Suburban child, lines 356–367, 385–388).

Dipti: And right now I'm thinking of going back to swimming and starting, like joining a different club and I'm taking part in basketball [at school].

R.G.: So it's a bit easier to do all these activities when it's part of school. Straight after school?

Dipti: Yeh, at least you know you're with the people who, like, you could trust. Because if you went all alone and with a small gang and never got on with them then you wouldn't know what would happen. So, my mum's a bit protective sometimes (Suburban child, lines 840–852).

In the first excerpt, Adam makes it very clear that, in addition to his enjoyment of playing football, the opportunities that the activity provides for making lots of friends are central to his interest in participating in the activity. Dipti also acknowledges the importance of her peer group in determining whether taking part in something will be enjoyable, but her excerpt also highlights another important influence on the opportunity for peer group interaction—parents.

A variety of different child–parent relationships could be identified within the sample of children that I worked with, and some of these relationships facilitated peer group play and greater freedom for independent activity and exploration than others. Dipti felt that her mother's protectiveness might have influenced Dipti's own confidence to try new activities in settings where she would not initially know the other children.

Through these short excerpts and illustrations, we can begin to identify a set of social and psychological factors, influencing the way that different children choose or have opportunities to engage in an activity, which have not been adequately explored or conceptualised in environmental education research. Affective approaches to environmental education seek to build on children's own daily environmental experiences, perhaps drawing upon the motivational factors that help shape a child's attitude towards and willingness to take part in an environmental action. However, the examples of such approaches reviewed in this paper suggest that an aesthetic orientation, infused with adultist social constructions of childhood-in-nature, does not adequately reflect some of the significant aspects of daily life that children themselves identify.

Conclusions

The above analysis raises important questions about the foundations of affective approaches to environmental education. If the strength of affective education lies in an engagement of the emotions, then it could be argued that affective education is not really about children 'relating' to their environment more directly (drawing from and building on their own experiences). Rather, affective education emphasises the development of specific kinds of emotional engagements which *may* provide a more effective way of getting people involved in environmental action.

Affective environmental education activities are specifically designed to engage children with the environment on a more emotional level. They are successful at drawing out aesthetic responses to environmental experience via art, creative writing and music, etc. However, what is less clear is whether children are understanding their relationship to the environment, and the causes of environmental degradation, more clearly as a result, and the extent to which these activities can influence personal decisions about environmental behaviour.

Why do affective approaches to environmental education, which claim to build on the ways that children experience natural places for themselves, continue to encourage children to learn how they *should* experience and value nature? In this paper I have highlighted the continuing role of a long tradition of socially constructed myths and ideals about children's relationships with nature, and the ways that these constructions have played an important role in defining environmental education throughout the history of the discipline. I have not attempted to offer an evaluation of the extent to which affective educational programmes, regardless of their foundations, may or may not make a positive contribution to the ultimate aim of environmental education—to encourage individuals to choose more environmentally sustainable lifestyles. However, the Children's Environments Project, by conducting research with children and listening to their accounts of the significant activities in their daily lives, suggests that a different set of priorities and practices needs to be developed further before environmental education programmes can claim to be building upon the foundations of children's significant environmental experiences.

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Note

1. In fact, it is important to note that Rousseau's writings on the child referred almost entirely to male children only. The value of the female was seen primarily in being a partner for the male and any tutelage was strongly discouraged, even basic skills such as reading. Women were identified as mothers and seen to be a constraining factor on 'natural' childhood upbringing (Sommerville, 1990; Cox, 1996).

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