

Gendering Environmental Education Reform: Identifying the Constitutive Power of Environmental Discourses

Deirdre Barron

Faculty of Education

Deakin University

Victoria

This study was undertaken to examine the ways, and to what extent, boys and girls entering school have positioned themselves in relation to discourses about the environment¹ and the implications this has for environmental education. I was inspired by Davies (1989) and Davies' and Banks' (1992) studies of the ways in which gender was constituted through the discursive practices of girls and boys and the '... political implications of the ways in which children are constrained by the dominant gender discourses ...' (Davies and Banks 1992, p. 2). I was also influenced by the current ecofeminist scholarship that looks at the political implications of the perceived right in Western cultures to dominate the non-human.

While I am anxious to avoid labelling the children as masculine and feminine based on their biological sex it is interesting to note that in my study of young children's perceptions of environment the discourses of male 'culture' ascendancy were more often taken up by boys, while the marginalised discourses that opposed culture as ascendant were more often taken up by girls. I am concerned with the implications of these gendered constructions of environment for girls, nature and environmental education reform.

Current discourses in environmentalism

Within education and ecofeminism there is a growing body of scholarship that sees the destruction of our planet resulting from the domination of 'man' over nature. Within this body of scholarship it is argued that this domination can be traced through the development of Western science. Merchant (1990) argues that the view that male equated to culture began to gain ascendancy at the beginning of the scientific revolution c. 1480. Within this argument dominant and hegemonic, scientific discourses are understood to endorse masculine attributes such as objectivity, separateness and control (Keller 1989). In the 'natural' hierarchical order the subjective positions available for females and nature could never be masculine, and thus could only be understood as inferior. Currently, dominant and hegemonic discourses of environmentalism, 'technocentrism', rely on this elevated position accorded to scientific knowledge (O'Riordan 1989). Thus, it can be understood that the

gendered construction of science endorses the gendered construction of environment (Bleier 1984, King 1990 and Spretnak 1990).

This does not mean that other discourses about women and nature disappeared, rather, they have been marginalised within Western scientific discourses. Oppositional discourses to the technocentric orientation can be identified in the 'ecocentric' orientation. Ecocentric (or green) proponents argue that the limits of the Earth itself prevent unchecked economic and population growth and thus, they see the technological 'fix' as inappropriate. Yet ecocentrics, like technocentrics, differ on what they see as an appropriate relationship between culture and nature. Dunkley (1992) uses the terms 'light green' and 'deep green' to describe the different stances of ecocentrics. 'Light greens' are more concerned with environmental losses than with conventional economic logic, thus, they are not anti-technology as long as it is appropriate. Discourses from the 'deep greens' oppose notions of scientific rationalism, anthropocentrism and economic determinism, the growth of technology, the production of surplus goods and the accumulation of private property.

From a poststructural ecofeminist perspective the human and non-human worlds are constituted by and are constitutive of each other. Within this perspective technocentric discourses are understood to be sanctioned by hierarchical dualisms such as culture over nature, us over others, and the individual or the individual company or the individual nation over others (Tesh 1988). While radical ecofeminists have exposed how dualisms function to stand culture in opposition to nature and individualism in opposition to holism, poststructuralism allows us to see how these discourses work to sanction dualisms that place people apart and above everything else. While discourses that seek to liberate women and nature must incorporate nature and holism in their charter, this is not enough to develop counter-hegemonic discourses.

A counter-hegemonic discourse must make visible the power of these discourses to create and sustain the subjective positions available to individuals and the position made available to nature. It must then provide a discourse in which all that share this planet are not constituted by virtue of particular sex organs or humanness. This is a difficult task when our ability to identify our difference to nature is part of being a social person (Griffin 1978). Adding to this difficulty is the importance of '... our capacity to attribute to others, and to aid others in attributing to us, "correct" gender' (Davies 1989, p. x).

The impact of the engenderment of nature on environmental education

Greenall (1987) tells us that when (school based) environmental education emerged in the 1970s it was in response to the belief that education offered an appropriate response to the perceived environmental crisis.

There has been widespread disagreement amongst environmental education theorists as to what should constitute 'good' environmental education. Whilst the debate about what should be included in the environmental education curriculum continues, the history of school based environmental education indicates that hegemonic discourses of environmentalism have become institutionalised in schools as the preferred discourse (Greenall 1981, 1987, Robottom 1987). Leading from this, I argue that the institutionalisation of environmentalism has worked to position females and nature as negative referents (Therborn 1980) leading to gender and ecological inequity. This inequity arises when the notion of 'culture' as masculine, 'nature' as feminine is presented as 'truth'. Discourses that present this notion as 'truth' work to maintain the current social order of male over female, culture over nature (Barrett 1991).

The purpose of my research is to analyse the contradictory ways that children take up environmental discourses and the implication this has for the development of environmental education. In examining these contradictions I looked for the way gendered subjective positions worked to construct the children's perceptions of 'environment' as they entered the schooling process. That is, I examined the ways in which children had taken up the discursive practices that position them as human [where human equals male (Hamilton 1991)], and thus, how they had learned to take up their position as superior to nature. This was examined in conjunction with the ways these children had learned the discursive practices that position them as gendered where females are constructed alongside nature and are thus, also constructed as inferior.

The study

This study was conducted in a Victorian, provincial Catholic primary school. It is a predominantly working class community. Only the pupils in grade prep were used in this study. The school records show that there are thirty one children in this grade, twelve girls and nineteen boys. Twenty five children were used in this study, twelve girls and thirteen boys². The classroom teacher is a white female aged between twenty-five and thirty. Data were gathered in the classroom of teacher student interactions, in the outside areas during set environmental activities and during two interviews. The data analysed in this paper are the interview component. In analysing the interviews I looked for instances in the transcripts that helped me identify:

- 1) What dualistic thinking was evident in the children's discursive practices?
- 2) What storylines are being made relevant?
- 3) What discourses are being mobilised?
- 4) Whose interests are being served by these discourses?

(Davies and Harré 1991/92)

Children's perceptions of environment

It is not merely enough that I analyse what the children say since the stories themselves constrain and manipulate particular interpretations through the text and sub text (Kress 1985, A. Luke 1988, 1989). The text is the words that tell us what happens in the story. The sub text involves what the children understand about the forms and relations and ways of being through which the text is created.

Dr Seuss' *The Lorax* (1972), was the focus for the first round of interviews. The text itself can be understood as a constraint to the gendered positions that the children were able to take up as all of the characters are constructed as male or sex neutral. The implied reader is constructed as a boy on the opening page positioning the children as this boy. If, as Hamilton (1991) argues, that male gender specific and gender neutral terms invoke male biased imagery, we can see the power of this text to construct the reader as male within a masculine narrative.

The sub text can also be understood as a constraint to the gendered positions available to the children. There are three characters that can be read as 'main' characters; a child, the Once-ler and the Lorax. The Lorax, being the name of the book, is intended to be the main character. However, for the children the Once-ler is read as the main character. All of the children, on hearing this story, read the actions of the Once-ler as human actions. The sub text does not disrupt traditional stories where action equals male, thereby limiting possible interpretations. Davies (1989) tells us that the sub text relies on how individuals are able to take up positions in various categories e.g. male/female, adult/child etc. Within the hegemonic discourses on gender the boys have identified themselves as the Once-ler in the shared category of male, the girls have identified themselves as opposite with in the male/female dualistic categories of the social world. The implication of the children's construction of the story line is that the moral judgements that the children make are an articulation of their understanding of the right that man (male) has in exercising power and control over the feminine and nature, that is their understanding of the 'correctness' of the culture/nature dualism.

Exploitation

This difference in understandings is visible in the opening discussion which was concerned with the issue of exploitation. The analysis of this issue relies on the notion that in Western cultures the exploitation of nature is based on the culture over nature dualism that assumes that humans exist outside and above the non-human world.

Girls' understanding of exploitation

DB Here he has cut down a tree. Is it alright for him to cut down this tree?

- All No.
Skye No-one said to.
Celeste He has to ask if he could.
Natalie And you're not allowed to cut trees. 'cause who ever owns it can.
Jordana You might waste money.
Natalie He might get to go to jail.
DB Who might put him in jail?
Natalie
& Louisa The police.
DB ... Whose trees are they?
Natalie The green things (referring to the Once-ler) ...
Celeste You're not allowed to cut the trees down else they get into trouble by their mum and dad.
Natalie I've got trees at home.
DB Yeh?
Natalie Well, I cut mine.

DB Why?
Celeste Cause there's not enough trees for them all to eat.
DB What if there's no trees anywhere for them?
Celeste They might die.
Jordana They can come back.
Natalie They can find some.
Celeste So, they might die.
DB They might, mightn't they. Should the Once-ler stop cutting them down?
Natalie No ...
... I think the Thingo (the Lorax) has to stop him cutting the trees down.

The question for the girls was, which humans have the right to stop the trees being cut down rather than whether humans have the right to cut down trees. Some gave authority to the police while the others gave authority to adults. In arguing that only some people had the right to cut down trees the girls were also arguing that this was not an assumed right of all humans. When the issue involved the rights of animals all of the girls expressed the understanding that humans did not have unlimited rights to intervene in the non-human world. The problems associated with pollution worked to focus the issue of exploitation more clearly for the girls. While some of the girls tried to find a solution that allowed for the continued exploitation of the natural world by the Once-ler, when faced with the extinction of these animals the girls argued that the animals had the right to survive regardless of the perceived human needs. Most took up light

green discourses like Natalie. The problem was still who had the power to intervene in the non-human world, however, agency was limited to the Lorax, the right of humans to exploit the non-human world had been dramatically reduced. Three girls, including Celeste, took up dark green discourses, raising the rights of the non-human world to the same level as the human world.

Boys' understanding of exploitation

DB Do you think it is alright to cut down this tree (referring to the first tree).

Matthew Yep, and we can cut some more.

David Maybe six, I think about one hundred.

Andrew Hundred, all of them.

Partha
& Simon No.

Partha But if you cut down all the trees there will be none left.

DB But what about one tree, can he cut down one tree?

Partha Yes.

Simon Um ... if you can cut down all the trees, then no birds would come.

DB That's true, but can you cut down some of the trees?

Simon Yeh, only if you cut one.

Ben They could keep growing and they could keep going to make heaps of money.

DB ... was it alright for him to cut down the first tree?

Robert Uh, no.

DB Why?

Robert Because the um, because um the, the.

DB The Lorax.

Robert Yes, um, he's come and then he'll say not to.

For the boys there was a greater spread in the positions they took up within this discourse, from Simon who maintained a constant objection to the trees being cut down to Matthew who maintained that '... you can cut down all the trees, you can cut down the house, if he wants the trees cut down well that will be alright won't it'?

For most of the boys the human right to cut down some trees was assumed. In making their moral judgement most of the boys claimed agency for themselves, Robert and Bjorn were the only boys who made reference to the Once-ler 'getting into trouble', and thus limiting the right for all humans to intervene and giving authority to adult humans. From the start of the interview the boys related the logging with the economic aspects of the story. The boys also demonstrated concern for the effects of

pollution, but the solution suggested by the majority of boys differed from the girls. While Partha and Simon believed that the Once-ler should stop making the pollution the other boys looked for alternatives that can only be interpreted as technological-fixes. While most of the boys just kept stating that the Once-ler had to fix it up (referring to the factory), Andrew, extending on Matthew's 'big container', talked about developing a separate parkland with a lake; 'dig a hole and put water there, with grass around it'. In this part of the discussion most of the boys positioned themselves in the environmental discourse of the accommodation, while Partha, Simon and Robert took up 'light green' discourses.

Consumerism versus conservation

The analysis of these children's understanding of the issue of consumerism versus conservation is informed by ecofeminist understandings that technocentric discourses of consumerism, economic determinism, conservation and sustainable growth are underpinned by the culture/nature dualism. Ecocentric discourses seek a more equitable relationship between the human and non-human world. Ecocentrics call for sustainable development rather than sustainable growth, and some call for preservation rather than conservation.

Consumerism versus conservation: Girls

DB But he wants to make money, he's going to make money by knitting a thneed.

Wouldn't you like to cut down a tree to make more?

All No.

DB Why not?

Natalie 'Cause! He might get to go to jail.

DB Who would put him in jail?

Natalie

& Louisa The police.

DB But he's the only person who lives there.

Celeste And they're not allowed to.

DB Why isn't he allowed to?

Jordana They might get into trouble off their mummy and daddy.

DB ... but he needs lots of money, or he says he need lots of money.

Natalie Well, he's one, he's cutting one or more off ...

DB What about if, the girl wants a new thneed, (reference has been made earlier to a thneed being like shoes), does she make another thneed?

Many

Voices No.

Celeste And the trees are still white.

- Natalie She won't have any money if she doesn't work.
Celeste And the fishes might jump out.
Natalie If you don't work you won't get any money, if you do work you will get money.
DB So, is the money important?
Celeste No ... he's cutting lots.
Natalie Yes.
Celeste You get some out of the bank ...
DB ... This girl really needs a pair of new shoes. Can he make a mess so he can buy her shoes?
Celeste No. Not if, if it makes it like honey (referring to the water) then he has to stop.

Most of the girls maintained 'light green' discourses, some shifted slightly toward a deep green, with the biggest shift voiced by Celeste, that is some girls saw the rights of the animals, and the associated cessation of logging, as more important than the accumulation of wealth. The exception was Jordana who shifted to take up a technocentric discourse.

Consumerism versus conservation: Boys

- DB Should he cut down the tree to make some money?
Andrew, Matthew
& Ben Yep.
Ben ... then he can buy lots of stuff.
Andrew Do you know what?
DB Yes?
Andrew My friend already cut one today and there was, and he was there and just cut one off.
DB Right.
Andrew It went Timmmmmbeerrrrr.
- Simon We cut some ...
Andrew Hundreds.
Simon ... and they keep growing and they could going to make heaps of money.
- DB Should he cut down the tree to make some money?
Robert No, 'cause he'd kept chopping it, and he'd keep making them so everyone could have any um things. So, so that's why they'll die.

The right for humans to meet all their wants and needs was actively taken up by most of the boys in this section of interview. The most extreme technocentric position was taken up by Andrew. His talk was accompanied

by disruptive behaviour, a loud display of aggression. The above text was associated with violent swings of the arm as if chopping down trees, and hitting the boys around him. He inserts himself into the text by drawing on a form of masculinity that associates the *ability* to inflict damage with the *right* to inflict damage (Walkerdine 1987).

For Simon this is the only time in the interview that he shifts away from an ecocentric perspective taking up the discourse of sustainable growth. Most of the boys positioned themselves between Andrew and Simon. Three of the boys positioned themselves between Simon and Robert, who maintained a 'light green' perspective. I chose 'light green' rather than 'deep green' since they argue that it is the excessive logging that should be avoided, outlining the Once-ler's failure to constrain himself as the real problem.

Technology

Technocentric discourses rely on the elevated position accorded science and technology in Western cultures. When the children's understandings were framed within the issue of technology we see most of the boys and girls taking up scientific, technological fix all discourses. Celeste and Sharon were the only girls to maintain that the invention was bad because of the environmental impact. Simon was the only boy to disagree with use of the invention. The other children saw the invention as good because it could do the job faster, but did not see it in terms of the environmental impact of which they had previously disapproved. The shift towards technocentrism displayed by the boys and girls who had previously taken up ecocentric positions is typified by Robert. I use the example of Robert rather than a girl because he brought to my attention the constraints imposed on children as they struggle to take up the social requirement to construct oneself as a unitary being (Davies and Harré 1989).

DB ... was it alright for him to cut down the first tree?

Robert Uh, no.

DB Why?

Robert Because the um, because um the, the.

DB The Lorax.

Robert Yes, um, he's come and then he'll say not to.

DB Should he cut down the tree to make some money?

Robert No, 'cause he'd kept chopping it, and he'd keep making them so everyone could have any um things. So, so that's why they'll die.

DB Do you think this is a good invention?

All Yes.

- DB Why?
Tom He wanted to make some more thneeds.
Tim So you don't have to do it yourself.
Robert You don't have to swing your arms back.
DB Do you think he should use it?
Robert Yes ...
DB ... But you said that you didn't want them to chop down any trees.
(long silence)
DB You said before, didn't you , that you don't think they should cut down any trees at all. Now he's cutting them down four times as fast as he could just with the axe.
So, do you think he should use this new invention.
Robert Ummm (whispering in background).

Robert doesn't enter the discussion again until the focus shifts to how they would act if they were in the Once-ler's position. When he finally re-entered the discussion towards the end of the interview it was to make a statement that positioned him within interventionist discourses.

- Robert I would have a drink and then cut down some trees.
DB What would you do then?
Robert Make things out of them to make some money.
DB Would you cut them all down?
Robert If I needed the money then I could cut them all down.

Thus, Robert who had taken up a 'light green' perspective for most of the interview had shifted dramatically to a technocentric perspective. In questioning the different position Robert had given to the non-human world I had also questioned his failure to construct himself as a unitary being. This pushed him to choose a unitary position, the position he chose relied on his understanding that he was human, above and apart from the non-human world.

Summary: Gendered positioning within contradictory discourses

The children voiced many different understandings of *The Lorax* (Dr. Seuss 1972). Throughout the interview some children changed their answers. It may seem that these children are confused or unable to make up their minds. However, it could be read as the children taking up multiple subjectivities in relation to contradictory discourses; e.g. Robert when positioned within the discourse of conservation states that the Once-ler should not chop down the trees. His positioning shifts to allow the Once-ler to chop down some trees, and if need be all of them, when he

engages with the text through a technological discourse. That is, the child could be seen as taking up contradictory understanding of his role; the need to provide material well-being versus the need to care for all the non-human life that is affected by consumerism. When he is faced with the notion that he is being contradictory he takes up the masculine, scientific discourses of intervention.

The girls also took up contradictory positions in relation to the text. First they position the Once-ler as a human who has the right to exploit the natural world. This runs contrary to their understandings of themselves as female, concerned with caring and nurturing. Since we are pushed to take up one coherent position (Davies and Harré 1991/92) the girls seek a rational remedy to these contradictions. In coming to terms with these contradictory positions the girls called on a higher authority. For the girls hegemonic gender discourses allow them to be caring and nurturing but robs them of their ability to be agents. Thus, while most of these girls believe it is wrong for the Once-ler to cut down the trees, because of the impact this would have on the animals, and he should be punished for this wrong doing, the responsibility for preventing this wrong doing lies outside their control and rests with those holding sovereign power. Field-Belenky, McVicker-Clinchy, Rule-Goldberger and Matluck-Tarule (1973) argue that one of the constraints on girls in positioning themselves as feminine is that obedience to authority is of utmost importance. This positioning only allows action to be in the form of unquestioned submission to a greater authority. The girls argue that the Once-ler should also submit to this authority.

What are the implications of this analysis for environmental education? One answer would seem to be to teach environmental education within caring and nurturing discourses. But this would not allow children to question the way they are positioned by other discourses. From an ecofeminist perspective, the discourse that needed to be disrupted was that of the unitary being, for as Argyle and Little (in Davies and Harré 1991/92) demonstrate, contradictions are a characteristic of people living in complex societies. Identifying the constitutive power of different discourses would involve a recognition of the inevitability of contradiction in a world made up of contradictory discourses and a recognition that these discourses are subject to change (Davies and Harré 1991/92). In confronting the non-unitary self the children may be able to resist hegemonic discourses by taking up ecofeminist discourses as their own.

This examination leads me to argue that, 'ecocentric' environmental responses may be stimulated by presenting environmental issues through particular discourses but that this will not necessarily disrupt other hegemonic discourses thus, leaving the status quo intact. I see radical environmental education reform arising from the identification of the non-unitary self which makes it possible for new subjective positions to be

established and taken up as one's own leading to the development of new discourses.

At this point I need to return to the argument of Davies (1989) and Davies and Banks (1992), that the dominant discourse of masculinity and femininity functions to create male as opposite and superior to female. Davies (1989) asserts that children become locked into masculine and feminine subject positions through discursive practices which create them as opposites. Thus, we need to see the subjective positions of children in relation to environmental discourses are also influenced by gender discourses. In my study I understood that boys are not only able to take up their masculinity in gender appropriate positions but also human appropriate positions. The girls struggled between taking up human appropriate positions which are masculine and gender appropriate positions which are feminine. The children have difficulty in coming to terms with these contradictory positions. Yet all of the children, in varying degrees, maintained a separation of themselves, as human, above and apart from the non-human world. We can see from this analysis that the children in this study have learned the discursive practices of our society that position them as human and as gendered beings. Two possible implications of this are; 1) That in presenting hegemonic environmental discourses as 'truths' the boys' interpretations are sanctioned while the girls' interpretations are marginalised by virtue of their purported inferior world view and 2) Even if alternate environmental discourses are presented the children will not necessarily take them up as their own.

This also has implications for the positioning of the non-human world. If masculine interpretations of environment remain as the 'correct' interpretation the dualistic social order is left intact. The current social order of culture over nature is maintained legitimising the continued domination and manipulation of the non-human world. This research indicates that there is an urgent need within environmental education to give children the opportunity to explore the gendered nature of 'environment' and to make visible the way language works to marginalise women and nature.

Notes

- 1 In this paper '**environment**' refers to the relationship between the human (culture) and non-human (nature) worlds.
- 2 On the days of the interview four children were absent, all boys. One child, a boy, elected not to take part in the interviews and another child, a boy was not allowed to take part because of disciplinary action.

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