'You cannae stop the future' Young People and Environmental Issues

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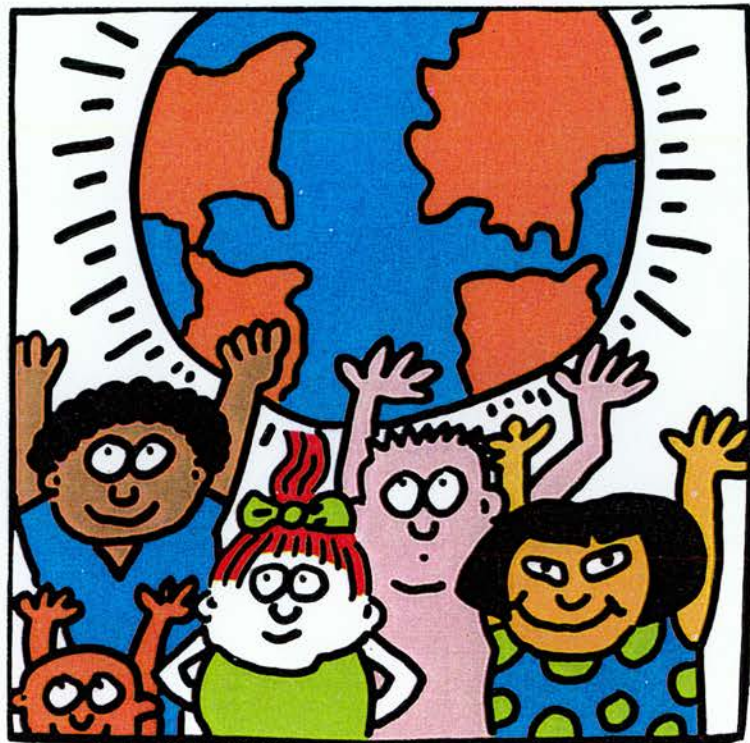
1998

Declaration

I have composed this thesis on
the basis of my own research.

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May 1998

ACKNOWLEDGMENTS

ABSTRACT

This research identifies the environmental concerns and actions of a school class of young people aged 11-12 years old, in Edinburgh, Scotland. While much existing research has broadly located the concern felt by young people towards environmental issues, little of it delves any deeper into the lived social experience of environmentalism for young people. Furthermore, while the media have produced much material about environmental issues, relatively little work has focused on the audience reception of this media, and no major work has been conducted with young people. These are both issues which this thesis seeks to address. The research was undertaken using focus groups, questionnaires, and individual interviews. Focus group discussion was based around the viewing of two videos about environmental issues. The research aimed to locate the young person's perspective on environmental issues and enable their voices to emerge strongly in the data whilst minimizing that of the researcher.

This research has found, in keeping with other studies, that most of the young people in the group are concerned about environmental issues. However, it also identifies that they seldom do anything practical to activate their environmental concern. This inactivity is compounded by their low social status as children. There was little evidence of pro-environmental behaviour undertaken in the home and where there was some, disagreement occurred between parent and child as to what this behaviour entailed. A surprisingly low amount of environmental activity has been initiated by youth groups and in the formal curriculum of the school the young people attended. Many of the young people have not undertaken pro-environmental activities with their friends and many do not even know whether their friends are environmentally concerned. The young people express feelings of resignation and frustration at their own and the government's inaction in dealing with environmental issues. They feel that environmental problems in the future will get worse. The media research found that the young people do not assimilate all of the environmental information broadcast, relying instead on previous knowledge and experience of environmental issues in their discussions. Some of the responses in the research are distinguished by gender. However, while some of the data fits Gilligan's (1993) model of a different voice, much cannot be said to fit into her schema, suggesting instead a continuum of moral thinking rather than distinctive male and female voices.

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PREFACE

During the course of my field research in the winter to spring of 1995-6, several environmental stories were in the news. The oil spill off the Pembrokeshire coastline seriously affected the local habitat both in the sea and on the coast. Thousands of birds and mammals had to be rescued and cleaned; many died.

At the same time, protesters were making houses in the treetops of a forest at Newbury in the hope of saving the forest from being cleared to make way for a bypass.

Towards the end of the research, the BSE crisis was high on the news agenda leading people to make decisions about eating beef and beef products because of the connected threat of contracting the CJD brain disease.

Among other stories around the time of my research were the first genetically-altered tomato puree reaching supermarket shelves, along with the genetic manufacture of soya beans. These issues drew questions about the long-term implications of these products and whether they could be labeled to distinguish the genetic modification. There were more reports of the connection between Gulf War Syndrome and organophosphates; the war in Bosnia; the continuing famine in many parts of the non-western world; supermarket milk found to contain pesticides; fears surrounding the declining numbers of tigers living in their natural habitat; worries about unusual trends in the climate; the Brent Spar oil platform rescued from being dumped in North Sea; the further weakening of the ozone layer over Arctic and Antarctic; the French nuclear testing in the Pacific.

Environmental problems and concern about the environment have infused many areas of our everyday worlds. Our social and cultural spheres have been "greened" with the suggestion of ameliorating ways in which individuals can assist to repair the planet.

Young people have been of particular focus regarding environmental concerns; it is they, and the generations who follow them, who shall inherit the Earth, along with its environmental problems. Indeed, as Jonathan Porritt provocatively states at the beginning of his environmental cartoon story-book, Captain Eco and the Fate of the Planet,

> "Your parents and grandparents have made a mess of looking after the Earth. They may deny it, but they're little more than vandals. And they're stealing your future from under your noses" (1991:5).

My PhD thesis begins to disentangle some of the environmental focus placed on young people. I have sought to locate the various influences that young people may encounter in their day-to-day lives and what they feel about all the attention given to environmental issues. Are young people afraid of the environmental future or do they feel that the situation will improve, or, even, are current problems interpreted as a (global) storm in a tea-cup?

This research develops, in part, from the work I conducted for my MA dissertation (Grundy,1993). Here, I explored the content of some of the many environmental cartoons broadcast on television for young people. These cartoons made up a relatively large body of fictional environmental media output during the early 1990's. This output had been largely overlooked by media researchers who had focused, for the most part, on news and documentaries about the environment. My MA research made me interested to discern how the intended audience felt about environmental media. Lack of knowledge of media reception of this area is a significant omission given that surveys have consistently shown that young people, and indeed adults, receive most of their environmental information from the media. Thus, one of the aims of this PhD has been to examine how young people receive environmental messages broadcast on television.

Alongside media reception, this thesis has sought to identify the level of environmental concerns held by young people. It has also looked at the range of sources of information available to youth in their everyday worlds. Finally, it has sought to identify any types of pro-environmental activities undertaken by young people.

This research is based on a study of one primary school class containing 28 pupils. I could have selected a diverse series of people, contrasting those who are

environmental pressure group members and those who are not, to gain their different perspectives on environmentalism. Alternatively, I could have monitored the success of pro-environmental community and educational projects to chart the ways in which young people can benefit from these programmes. Instead, I chose to look at environmentalism on a more everyday level in the hope of locating how much the growth in environmental issues has filtered into young people's lives.

My thesis does not offer itself as a full account of environmental education available to young people. School is often an important source of information for some young people. However, in my research, the young people had experienced little education about environmental issues from the formal curriculum over the course of their school career. The informal curriculum had recently provided more inspiration after the arrival of a new head teacher at the school.

In *Chapter 1* of this thesis, I explore the changes that have occurred during the development from pre-industrial to modern and late modern society. Additionally, I look at the epistemological and philosophical ramifications of the move to modernity and on into late modernity whereby the universalist orientation of modernity has been broken in favour of context and subjectivity. Furthermore, I examine the changing role of young people, environmental issues, and the media in modernity.

Chapter 2, focuses on the recent infiltration of environmental issues into both global political structures and our individual lives. Existing research relating to the environment and the media are examined to provide further literature support for the data chapters of the thesis.

Chapters 1 and 2 explore a whole range of literature linking to the four data chapters (*Chapters 4,5,6,7*). This literature highlights and discusses the various manifestations of environmental interest, concern, behaviour, and sources of environmental information, both experienced and undertaken by young people. A range of areas are covered including: the history of the environmental crisis; how it has been slotted into the school curriculum; eco-consumerism; locations for sources of environmental information; the demographics of concern; the research into environmental media; and identifying potential avenues for environmental activities within the everyday social milieu, and, more broadly, towards political activism.

The broad areas of literature covered in these chapters provide the threads that the data will ultimately weave into the conclusion.

Chapter 3, explores the data collection from inception to analysis. It explores the issue of young people as respondents and offers some reflections which may be of value to future researchers in the field. There is an absence of literature to which those researching young people can turn to for guidance when establishing their research schemata and when conducting the research.

Chapter 4, the first chapter containing my own data, explores the level of interest and concern felt by the young people in my research group. Which problems do young people rate as serious on a local and a global scale? How do young people vary in their concerns? Do the young people typically have suggestions for why these problems happen and how they can be prevented or reversed? Where do they perceive environmental problems to occur in the world? Who do they think should be making the strongest moves to cease environmental damage and exploitation? How do they envisage the future? Do they think that people will work together to reduce environmental problems? Do they think environmental activism will help to activate change or do they believe people such as Swampy are merely causing trouble?

Chapter 5, links in closely to *Chapter 4* by assessing whether young people's opinions are shaped by gender, in particular focusing on the work of Carol Gilligan (1982/1993). Gilligan has challenged Kohlberg's notion of moral development by questioning the universal human application of it, when, in fact, the research Kohlberg conducted was on boys alone. Gilligan seeks to expand the moral developmental categories to incorporate the different ways that girls morally develop. She suggests that girls are more likely to think about issues in a way which minimizes hurt for all involved, and they will reason about situations within the context of which they arise. Boys, on the other hand, reason in terms of rules, principles and fairness. From this distinction, can there be said to be different ways that boys and girls think about the environment? If so, can these be placed within Gilligan's framework or must we develop other explanations?

Chapter 6, explores the sources of environmental information stated by the young people and the various potential everyday contexts for pro-environmental behaviour, whether this be when shopping, at school, with friends or as youth group

members. It also compares the findings given by the parents which relate to environmental action in the home. This will gauge which behaviours are conducted, and whether there is correspondence between reports given by two different generations in the same household. There is also an identification of whether young people whose parents are pro-environmentally active outside the home are themselves any more active or concerned than their peers.

Chapter 7, identifies how the young people responded to the media that was shown to them in focus groups and on other environmental media they are familiar with. It examines how they talked about the themes of the two environmental programmes shown and other discussions that were triggered off via group discussion. It also examines young people's discussion of recent environmental news stories.

Finally, *the conclusion* draws together the findings of each chapter into a full summary of the thesis. It makes some suggestions, not only for future research, but for policy makers who seek an idea of how young people feel, think, and act with regard to environmental concern.

CHAPTER 1
MANIFESTATIONS OF MODERNITY

The key themes of this thesis, childhood, environmental damage and the media, are themes which must be contextualized within modern society. Our experience and understanding of these themes, both as people in society and as social scientists, reflects the present times in which we are living, the social past, and projections of the future.

MODERNITY

Modernity initially emerged between the sixteenth to eighteenth centuries in Western Europe, moving social formations from inward-looking, rural, agricultural settings, into globally-linked, urban industrial centres. Modernity developed radically new ways of organizing society which altered the social fabric (and indeed the 'natural' environment) in fundamental ways: geographically, politically, economically, socially, and culturally. The move into the expanding urban areas was swift and on a huge scale. Kumar notes that "in the space of just over a century a largely rural society had become a largely urban one" (1988:16).

In modernity, following the Industrial Revolution, people moved into the new urban areas with the promise of employment, particularly in factories. A gradual move of workers into the factory signalled a change of focus and organization of work from trading with localized markets to profit-driven competition with distant places (Engels, 1958).[1] Higher standards of living, factory production, cheaper goods, and the movement of goods from afar, brought into existence a consumer market (Outram, 1995; Porter, 1982; Engels, 1958). This move was enhanced by the development of transport systems such as the Forth and Clyde Canal completed in 1790 (Smout, 1970). Aided by the establishment of reliable

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1 See Chapter 1 of Engels (1958) for an expression of the move between pre-industrial and industrial lifestyles.

finances (Smout, 1970)[2], more of the population had a new wealth, through the ownership of property, for example (Hall, 1992a). This in turn brought out a new psyche amongst the modern populace:

> "both national income and income per head were rising in a way no-one had had any experience of in the past. In the place of passive resignation to poverty, there was a lightening of the spirit that showed through every aspect of Scottish life and culture" (Smout, 1970: 244).

The change of work in modernity induced specialized occupations and a more differentiated population (Tilley, 1976). Modern society was organized at a national level, pulling "formerly isolated regions and communities into greater contact with decision-making centres, and into greater dependence on them" (Tilley, 1976:18). The scale and focus of modern society required the establishment of bureaucratic and institutional mechanisms which undertook many of the tasks previously undertaken by the family and local community and worked to control and monitor the rapidly growing population (Kumar, 1988). Overall:

> "traditional communal structures…were destroyed by the gradual rise of a market economy and by the development of close ties between town and countryside as well as an increasing specialization in economic life. These socioeconomic changes had direct consequences in the political sphere: new structures developed to coordinate the diversified economic activities; a specialized political elite emerged; rural areas became increasingly dependent on emerging urban centers; and…a slow process of differentiation gradually produced an autonomous political center…" (Badie & Birnbaum, 1983:67).

The gradual extension of rights afforded to an individual in the modern state signalled a transference from traditional power relations, of, for example, nobleman and peasants, to a more structured form of power working at an individual and a state level. As Foucault suggests:

> "from the seventeenth and eighteenth centuries onward, there was a veritable technological take-off in the productivity of power. Not only did the monarchies of the classical period develop great state apparatuses (the army, the police, and fiscal administration), but above all there was established in this period what one might call a new "economy" of power, that is to say, procedures which allowed the effects of power to circulate in a manner at once continuous, uninterrupted, adapted, and "individualized" throughout the entire social body" (1991:61).

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[2] For instance, the Bank of Scotland was established in 1695 and the Royal Bank of Scotland was established in 1727 (Smout, 1970).

In modernity, the absolute, inherited power of traditional societies was replaced by the growing importance of the individual. For example, status could now be achieved through having knowledge rather than merely acquired through birth (Outram, 1995).

The growing significance of the modern individual is most evident in new conceptions of the individual as a 'bearer of rights'. There was an move in the relationship between a person and the social hierarchy from one of "status to contract" (Turner, 1993:5). This change, in theory, 'licensed' the individual to act as the power behind the state rather than the state operating through the absolute power of a small minority at the top of the social hierarchy. As a result of this, political (and other) institutions now embodied the rights of the individual.

Thus, from the onset of modernity there was a gradual expansion of the political, social and civil rights of the individual (Marshall, 1983). In the eighteenth century[3], people received civil and legal rights. These included:

> "Freedom from absolutism (the constitutional monarchy), freedom from arbitrary arrest, trial by jury, equality before the law, the freedom of the home from arbitrary entrance and search, some limited liberty of thought, of speech, and of conscience, the vicarious participation of liberty (or in its semblance) afforded by the right of parliamentary opposition and by elections and election tumults (although the people had no vote they had the right to parade, huzza, and jeer on the hustings) as well as the freedom to travel, trade, and sell one's own labour" (Thompson, 1965:79).

In the nineteenth century, citizenship rights were strengthened by political gains made following national agitation for reform and fears of revolution similar to those on the European mainland. The Reform Act of 1832 enfranchised more of the population.[4]

In the twentieth century, with the narrowing of class distinctions and more disposable incomes, people were offered, through the Welfare State, the right to "a modicum of economic welfare and security...to live the life of a civilized being according to the standards prevailing in the society" (Marshall, 1983:249).

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[3] Although this originates from the seventeenth century following the gains made from the Revolutionary Settlement (1688) of the English Civil War. These gains weakened the absolutism of the monarch in favour of a parliamentary system (See Mann, 1989; Hall, 1986; Moore Jr., 1987).

[4] Although it was the propertied classes who gained, universal suffrage was not granted until 1918 for all men and 1928 for all women.

However, in recent years the ability of the nation to maintain standards has been weakened through spiraling costs brought on by recession, and competition in global markets (Turner, 1990).

Although there was a significant gain made by many of the population in modernity, industrialization brought with it some negative aspects. For instance, Engels described in 1845 my own childhood home town of Stockport as:

> "notoriously one of the darkest and smokiest holes in the whole industrial area, and particularly when seen from the viaduct, presents a truly revolting picture. But the cottages and cellar dwellings of the workers are even more unpleasant to look at. They stretch in long rows through all parts of the town" (1958:52).

It is in this era that classical sociologists highlight feelings of anomie (Durkheim, 1964) and alienation (Marx, 1985), and cite the growth of bureaucracy as quashing natural choice and creativity (Weber, 1968).

As the first nation to industrialize, Britain suffered early signs of the problems that are currently known all too well. Kumar notes that "the seamy underside of pollution and environmental destruction was increasingly displayed to the societies which had advanced the furthest" (1981:302). Modern society developed the tools to systematically diagnose, monitor, and possibly remedy damage, as well as the organization with which to implement pro-environmental change. The late nineteenth century saw the first pieces of legislation designed to remedy this "seamy underside." In 1853, the Smoke Nuisance Abatement (Metropolis) Act was passed; followed in 1863 by the Alkali Act which established an inspectorate to monitor industrial chemical emissions (McCormick, 1991); and in 1876, the Rivers Pollution Prevention Act (Garner, 1996)[5].

Garner (1996) differentiates three varieties of early environmentalism:

> "those groups concerned with preserving the countryside as an amenity to which people could escape from the squalor and grime of urban and industrial Britain ... those groups concerned with nature conservation ... the growing concern for animals" (1996:63).

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[5] However, McCormick (1991) notes that this Act was not effective at preventing river pollution.

Each of these strands were supported by a variety of societies and movements. To preserve the countryside for the enjoyment of people, groups such as the Commons, Open Spaces and Footpaths Preservation Society (established in 1865) and the National Trust (established in 1895) were set up. Groups such as the Society for the Protection of Birds (RSPB) (established in 1889)[6] and the Promotion of Nature Reserves (1912) worked to conserve and protect nature for its own sake (Garner, 1996).

Whilst today there is a growing discussion of the need to consider animal rights, such concerns were already voiced in the late eighteenth and the early nineteenth century. The welfare and rights of animals were promoted in this period as part of the liberalist concern for human rights, such as the abolition of slavery (Marshall, 1992; Garner, 1996). In the nineteenth century, a total of 8 groups were formed to promote the protection of animals (Garner, 1996).[7] For instance, the Society for the Prevention of Cruelty to Animals was established in 1824.[8]

However, this new concern about animals was held in conjunction with the dangers that they posed to human populations. For example, Ritvo notes the public fear about contracting rabies:

> "A range of analogous inconsistencies or contradictions emerged in the protracted and impassioned Victorian public debate about rabies, or hydrophobia. Throughout the nineteenth century, rabies epizootics were a recurrent source of public concern and even hysteria. Because of its association, widely recognised and often explicit, with contamination and sin, the disease evoked a degree of attention strongly incommensurate with the actual threat it posed to wither human or animals populations. That is, although rabies victims inevitably suffered excruciating pain and gruesome death, the actual numbers of such victims were rather low. The annual death toll numbered only in the hundreds, and in 1877, by far the worst year on record, only seventy-nine British died" (1994:109).

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[6] It became a Royal Society in 1904.

[7] Garner (1996) notes that, "in the early part of the nineteenth century, the major causes of concern were the cruelties inflicted on animals by the urban working class such as the treatment of carriage horses and the use of animals for baiting, whereas the cruelty inflicted on animals by the aristocracy (through hunting and shooting) and the scientific elite (in animal experiments) was ... largely ignored (1996:63-4) Drawing on Ritvo (1987) Garner notes that this was "a desire for social control, since animal cruelty, and baiting in particular, was associated with drunkenness and absenteeism from work" (1996:64).

[8] It became a Royal Society in 1840.

The public concern of rabies in the nineteenth century draw parallels to contemporary issues relating to animals and human health[9] considered by some to be evidence of the risks unique to the late twentieth century society. (see, for instance, Beck, 1992).

As well as concern for animals, children also acquired a new role in modernity. As Aries famously asserted in 1960 "in medieval society the idea of childhood did not exist" (1986:125). In saying this, he exposed the misperception of childhood as a universal and natural experience, and fundamentally challenged the notion that childhood had always existed, and existed in the manner in which it is known today.

In the move to modernity, families became focused around nuclear groupings as domestic life shifted into the private realm (indeed, there was a private life to be had) and ties with the community loosened. Families stopped being a centre of production, instead, family members received individual wages in exchange for labour external to the household.

Modernity categorized the young into those 'youths' who could earn a wage and those 'children' who could not. In the pre-modern era, the young worked with their families and communities, or, if members of the elite, were schooled. The nineteenth century expansion of elementary schooling for a greater number of the population reflected the need for an educated workforce and, when made compulsory in 1870, initiated an age stratification that separated those who could provide a full wage and those who could not because they were in school. In modern times, following the decentralization of community and the increase in power of the family unit and, ultimately, that of the individual, 'the child' became more distinctive and began to 'exist'. For instance, Donzelot (1980) notes that books for parents appeared at the end of the eighteenth century on many aspects of childhood. Coupled with this though, the child experienced a disempowered position within society through a greater parental and state dependence.

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[9] Such as the BSE crisis and even the recent discussion about relaxing the animal quarantine laws which protect against the introduction of rabies and other inflictions into Britain.

Little by little, the young were removed from public life, powered by:

> "The new middle classes [who] were the carriers of this responsibility and universal morality. ... childhood develop(ed) as an integral part of the concept of the family as an exclusive sphere of privacy and intimacy, increasingly seen as responsible for the raising of children and their moral development. ... The 'street' becomes the ultimate locus of vice and moral degeneration, whereas the home with the primacy of the family is the place where moral regulation supposedly takes place and virtue reigns" (Sznaider, 1997:225-226).

Childhood has been monitored and controlled in the modern era by way of the commencement of records for recording births and deaths. Indeed:

> "The problem of "children" (that is, of their number at birth and the relations of births to mortalities) is now joined by the problem of "childhood" (that is, the survival to adulthood, the physical and economic conditions for this survival, the necessary and sufficient amount of investment for the period of child development to become useful, in brief the organization of this "phase" perceived as being both specific and finalized). It is no longer just a matter of producing an optimum number of children, but one of the correct management of this age of life" (Foucault, 1991:279).

There was a movement to protect the young, for example, through parliamentary acts such as The Factory Act (Althorp's Act)[10] (1833) which legislated textile factories' employment of the young. The mid-to-late nineteenth century saw the establishment of child protection movements such as Children's Aid Society in the United States, and in 1899, the establishment of the National Society for the Prevention of Cruelty to Children in Britain (Sznaider, 1997).

LATE MODERNITY

Late modernity can be viewed as the global intensification and extension of social and political relations: nation-state power is dispersed into smaller national, regional, or federal interests, whilst the economic power of multi-national conglomerations undermine that of nation. As Giddens notes, the "biggest

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[10] This act, "forbade the employment of children under 9 (except in silk mills). Children aged between 9 and 13 were not to work for more than 48 hours a week or 9 hours a day. Young persons aged from 14-18 were not to work more than 69 hours a week, or 12 hours on any one day. ... Night work for all persons under the age of 18 was once again forbidden. At the same time it was made compulsory for factory children under the age of fourteen to have two hours schooling a day" (Engels, 1958:194).

transnational companies today have budgets larger than those of all but a few nations" (1990:70).

As "modern societies never settle, never reach equilibrium" (Kumar, 1988:3) the extension of society over the last two hundred years has meant that modern structures and social relations have become extended, moving further away from their beginnings which so distinctly characterized them from the pre-modern era.

Globalization which characterizes modernity can be witnessed in the "intensification of worldwide social relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away and vice versa" (Giddens, 1990:64).

Thus social relations are "disembedded" from traditional connections with "time and space" (Giddens, 1991:2):

> "place becomes increasingly *phantasmagoric*: that is to say, locales are thoroughly penetrated by and shaped in terms of social influences quite distant for them. What structures the locale is not simply that which is present on the scene; the "visible form" of the locale conceals the distanciated relations which determine its nature" (Giddens, 1990:19).

The late twentieth century has undergone a period of occupational and industrial restructuring, moving from industrial manufacturing which so characterized the early modern era, to a growth in service and 'clean', high-tech industries. This change, coupled with the expansion of higher education, means that people may not work in the same industries as their recent ancestors and that there has been a reduction in the physicality of human work, eroded in the move to increase profits by using faster machine technology with a lower ratio of (human) operators.

There has been a great extension of consumer goods both in volume and "to a mode concerned more with the status value and symbolic meaning of the commodity purchased" (Bocock, 1994:184). Consumerism, along with occupational restructuring, has transformed the source(s) of people's identities from traditional structures such as class and gender towards a more fluid, multiple and individualized set of identities:

> "The more social life becomes mediated by the global marketing of styles, places and images, by international travel, and by globally networked media images and communications systems, the more *identities* become detached - disembedded - from specific times, places, histories and traditions, and appear 'free-floating'. We are confronted by a range of different identities, each appealing to us, or rather to different parts of ourselves, from which it seems possible to choose. It is the spread of consumerism, whether as reality or dream, which has contributed to this 'cultural supermarket' effect" (Hall, 1992b:303).

For Giddens (1991), late modernity reflects the transition of modernity into a period where existing social relations and structures are replaced by global systems that defer not to locale, distance, or established practices but are instead unpredictable in relation to modern social organizations. Giddens likens this transformation to a juggernaut: "a runaway engine of enormous power which, collectively as human beings, we can drive to some extent but which also threatens to rush out of our control and which could rend itself asunder" (1990:138).

The late twentieth century has experienced more widespread and damaging environmental change than in any of the preceding centuries. This change is "wrapped up in political and economic relations and tied to social lifestyles and cultural value systems" (Martell, 1994:3).

The effects of the intensity and globalizing tendency of modernity was noted by Carson (1963) in her seminal examination of the effect on the environment of an influx of manufactured chemicals, sprayed to increase crop yields:

> "For the first time in the history of the world, every human being is now subjected to contact with dangerous chemicals, from the moment of conception until death. In the less than two decades of their use, the synthetic pesticides have been so thoroughly distributed throughout the animate and inanimate world that they occur virtually everywhere...these chemicals are now stored in the bodies of the vast majority of human beings, regardless of age. They occur in the mother's milk, and probably in the tissues of the unborn child" (1963:31).

Our awareness and monitoring of environmental issues has been transformed in recent years following the linkage of a growing number of seemingly separate concerns and events. Concern about environmental issues was initially based around the 'conservation' of nature and wildlife (Schoenfeld, Meier & Griffin, 1979). The focus on the natural environment in the late 1960's and early 1970's marked a shift away from the idea of 'conservation' of the past, towards the idea of saving

the 'environment' for the future. This re-emphasis of concern onto the "environment" retracted romantic images of natural landscape and replaced them with a grim reality of urban industrial pollution. The move signaled a recognition of the damage caused by 'humans,' 'industry,' and 'urban settlement,' to the environment (Anderson, 1991).[11]

Public debates about the environmental crisis are frequently fuelled and punctuated by news of various catastrophes. The oil spill near the British coast in 1967 from the tanker the Torrey Canyon, was one in a long line of spillages to threaten the local eco-system. Nuclear and chemical accidents which have threatened human populations have brought the reality of environmental damage a little closer to home. Bhopal in India was devastated in 1984 following a leak of methyl isocyanate, a poisonous gas used in the production of pesticides for an American-owned company, Union Carbide. An explosion that damaged a nuclear reactor in Chernobyl, Ukraine in 1986 caused an international crisis. In the mid 1980's awareness of two significant problems arose: the hole in the ozone layer[12] and global warming.[13] During this period, support for the environment filtered increasing into all levels of society, as Ferguson notes:

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[11] In relation to the changing terminology used to convey the environmental crisis, Beck (1995) notes that "risk society" has itself become a widely used phrase.

[12] The hole in the ozone layer has developed because of a build-up of chloroflourocarbon (CFCs) gases in the stratosphere. When these unnatural gases disintegrate they emit chlorine substances which break down the ozone layer (Yearley, 1991). Without the protection from the ozone layer, the Earth has no defence from the strong radiation advancing from the Sun. As a result of this damage, humans and animals are much more likely to develop skin cancer; and the food chain along with plant growth will be disrupted. Since the late 1980's, global agreements on the dangers of CFCs have meant that certain restrictions have been set into place. For example, the use of CFCs in aerosols has been significantly reduced, partly thanks to the 'Montreal Protocol' an international agreement which aims for countries to reduce the use of CFC's by 50% by 1999.

[13] Global warming or the 'Greenhouse Effect' has developed because of the build-up of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O) and CFC's, in the atmosphere. The build-up has occurred through the over-burning of fossil fuels, the intensification of agriculture, and deforestation to the degree that the naturally-evolved atmospheric balance of CO_2 and oxygen (O_2) has been lost. The increase of CO_2 in the atmosphere has already increased temperatures around the globe (Yearley, 1991). The knock-on effect of climate changes is that the ice-caps will melt causing the loss of low lying land, crops will fail through the now, unsuitable climate, and the weather will become unforecastable. Solutions which have been suggested for the problem of global warming include increasing the use of non-CO_2 emitting energy by harnessing natural power from wind, water and solar sources; better use of public transport and so on. However, as natural solutions are themselves increasingly being destroyed, the journey to rebalance the atmosphere looks long and arduous. For example, the massive clearance of the world's rainforest, especially in South America, often for the purpose of rearing beef cattle, means a huge natural CO_2 sponge has been destroyed.

"What is noteworthy about 'Saving Planet Earth' is the remarkably broad coalition of interests that espouse it: ecological activists, scientists, politicians, officials, journalists, manufacturers, marketing opportunists, recyclers and whistle blowers" (1992:82).

The media have played and important role in the development of public perception towards environmental damage. The spark that ignited environmental awareness was Rachel Carson's book "Silent Spring," (1963). Such publications resulted in widespread public recognition of the environmental impact of industrial development.

The media 'filter' information around the globe. Significantly they create what Thompson terms a "mediated worldliness" (1995:34) in which human experiences have become "symbolically" extended by the media, well beyond the sphere of people's own domicile.

Thus, media audiences have knowledge of environmental issues which are distant to their locale. As Thompson (1995) notes, the scale of area that the media can reach mean that people are no longer tied to local events and knowledge. Now they can be part of a much broader range of events. This is particularly so in the late twentieth century where communications have truly 'gone global' with the developments of communication technology such as extra-terrestrial broadcasting and the Internet which have again transformed our ways of communicating and the types of knowledge available. For example, once environmental information was not accessible to the public because it was not available in the public domain, except that provided by experts. Now, however, the growth and strength of pressure groups and investigative bodies means that more information is available and from a wider variety of sources. A powerful example of this change can be seen in the Windscale nuclear accident in 1957 which had radioactivity levels 600 times greater that the Three Mile Island meltdown in 1979. The severity of the incident only became public knowledge with the release in 1987, by the British government, of documents held under 30 year security restrictions (Article 19, 1988).

Ultimately, the media are vital to, and inextricably linked with, the various forms of power within modern society:

"No body of knowledge can be formed without a system of communications, records, accumulation and displacement which is in itself a form of power and which is linked, in its existence and functioning, to the other forms of power. Conversely, no power can be exercised without the extraction, appropriation, distribution or retention of knowledge" (Foucault cited in Sheridan, 1980:131).

With the rise of the media and the establishment of the media industry, people experience new forms of interaction and information. This has had significant ramifications for those in power who often can, literally, no longer hide:

"Prior to the development of the media, political leaders were invisible to most of the people over whom they ruled, and they could restrict the activity of managing their self-presentation to the relatively closed circles of the assembly or the court. ...Whether they wish to or not, political leaders today must be prepared to adapt their activities to a new kind of visibility which works in new ways and on an altogether different scale. And they ignore this new visibility at their peril" (Thompson, 1995:119-120).

Although British and American media coverage of environmental issues have helped inform the public, their treatment of issues does not tend to blame institutions such as the government or industry for environmental problems (Gauntlett, 1996). Gauntlett cites the American work of Delli Carpini & Williams (1994) which argues that the media are far too entrenched "and supportive of a consumer culture hostile to any but the most modest forms of oppositional political action" (Gauntlett, 1996:71). Incorporating this argument into the types of environmental information that young people receive from the media, Gauntlett suggests that:

"children do know about environmental issues - it is not that the subject has been kept from them. However the characteristics of the way in which that material has been relayed to them - via programmes which cannot be too contentious even on an important subject, and which aim to be reasonably reassuring for children, and to convince young viewers that they can make a difference - has led to a particular interpretation of the problems being conveyed. Environmental damage is thus domesticated and individualised, and opposition to it is similarly disengaged from effectively focused action" (1996:149).

The idea that the media deal with environmental issues but do so in a way which does not challenge the status quo is supported by Enzensberger who suggests that, "The very fact that it is disseminated by the mass media means that the debate generally loses a great deal of its stringency and content" (1995:225).

In recent years, sociology has begun to focus on the social manifestations and ramifications of environmental crises[14]. In particular, great attention has been drawn to the work of the German social theorist Ulrich Beck (1992). Beck's conception of "risk society" identifies the diversity of life in late modernity and the potential for harm from, for example, damage caused by nuclear and chemical technology. "Risk society" refers to the ways in which the technological and industrial developments of modernity have over-developed beyond their positive function, threatening all life on the planet. On a narrower scale, risk society reflects perceptions of how social ways and practices, once taken for granted, can no longer be deemed safe and predictable.

I do not agree, however. The human species are faced with a new hoard of self-created, potentially Apocalyptic, threats, but historically, other issues have played the character of the Grim Reaper, and were probably just as effective at creating the pervasive fears currently held. While the severity and scope of the potential for twentieth century Armageddon should not be understated, it is misleading to believe that the fears held today lack historical counterparts (Adams, 1995) as Beck would argue in his notion of 'risk society' (1992). While the potential destruction may cause damage beyond national boundaries, it is wrong to theorize assuming the worst case scenario of total annihilation. Many of the effects of environmental damage will undoubtedly encroach in a relatively slow decline rather than a sudden emergency. Furthermore, there is a tendency to blanket ecological risk as a single phenomenon with a single outcome. Instead, there must be more attempt to analyze the gradual impact of a variety of problems.

Risk, when theorized as a part of late modernity, fails to appreciate the range of social and political structures which will receive environmental damage. Some environmental damage, for example, that caused by a multiple detonation of nuclear warheads would affect nearly all of the planet's population and in much the same way. However, other issues will not be felt so immediately or in the same way; existing resources will allow some people to mitigate their suffering. While late modernity posits that individuals are freed from traditional constraining social ties, it is wrong to assume that there will be no differential mitigation following the effects of environmental damage; our social structures may have transmogrified but they have not evaporated.

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[14] For a broad selection of what is available see the 3 volume collection edited by Redclift & Woodgate (1995)

Environmental issues have brought about a reconsideration of rights and responsibilities of citizenship. In the late twentieth century, there has been discussion of the need to expand and refocus individual rights, partly through extension of the liberal gaze and partly through environmental issues which have forced the consideration of new citizenship issues. For instance, there has been a shift to broaden out these rights to incorporate considerations of young people and future generations. There has also been a suggestion that animals and nature itself have rights that should be considered (Singer, 1977).

Citizenship considerations which might be faced in the twenty-first century include questions of how rights can be afforded to global populations for protection from harms that spread beyond national boundaries; what are the responsibilities of citizens living in a ecologically damaged world; and should responsibilities incorporate life beyond human societies?

Van Steenbergen suggests the best extension of citizenship is one which:

> "emphasizes the importance of the planet as breeding ground, as habitat and as life-world. In that sense we can call this type of citizen an *earth citizen*, aware of his or her organic process of birth and growth out of the earth as living organism. The development of the city via the nation-state and the region to the globe is here not just a matter of an increase in scale. With the notion of the 'earth citizen' a full circle is made, the citizen is back to his or her roots; the earth as Gaia, as one's habitat" (1994, 150).

While van Steenbergen questions the degree to which citizenship can be applied to all living entities on the planet, he suggests that a real gain for the environment is to be had in pushing forward human citizenship responsibilities to include thought for non-human species rather than a global economic citizenship operating at the expense of the environment.

In late modernity, childhood has become more individualized and distinctive. For example, a greater variety of consumer goods focused on different groups of young people and youth cultures have become available. At the same time there has been increasing pressure to protect them from the risks associated with late modern society. For example, young people are often limited in moving about their own locale and certainly limited to moving beyond it, by parents who are worried about traffic or the 'stranger-danger' risk attached to unsupervised youth (Henderson, 1995). This is ironic because if young people are protected from the outside world,

they do not develop a strong independent competence, for example, in road safety (Hart & Green, 1995).

Late modernists, such as Giddens (1991), believe that the erosion of strong class ties has freed youth from traditional political allegiances and allowed them to follow single political interests, such as the environment, removed from partisan politics. However, Furlong & Cartmel (1997) do not support the view that people are making more individualistic choices. Instead they suggest that "young people do express collective concerns, but frequently seek personal solutions to problems which are largely a consequence of their socio-economic positions" (1997:107).

Furlong & Cartmel (1997) have attempted to negotiate, theoretically, late modernity and risk theory with the old structural tenets of modernity, such as class. They acknowledge the decline of subjective class identification but deny that changes in the social structure have freed people to the degree outlined by Beck (1992) and Giddens (1990, 1991). Instead they focus on how:

> "...some of the problems faced by young people in modern Britain stem from an attempt to negotiate difficulties on an individual level. Blind to the existence of powerful chains of interdependency, young people frequently attempt to resolve collective problems through individual action and hold themselves responsible for their inevitable failure" (Furlong & Cartmel, 1997:114).

In sum, theories of late modernity over-emphasize the degree to which social change has reduced social inequality.[15] Some change has occurred but it is still structured change, structured along the lines of old. While society and social structures are not static, it is wrong to assume that as they change, inequality will cease. Furthermore, they overlook the possibility that the view of 'unique lives and experiences' is a recurrent generational reflex which easily charts difference but blocks any connection of similarity to the past in terms of sentiment or experience.

Interestingly, whereas young people effectively lost their voice in modernity when they were removed from the public sphere and categorized as 'different' from adults, in late modernity there has been a move to grant young people greater consideration in decision making, better rights, and to reactivate their voice in

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[15]This line of reasoning is supported by statistics from the Joseph Rowntree Foundation (cited in Jacobs, 1996) that show the considerable growth of inequality in British society over the last 20 years.

society[16] Recent approaches to dealing with environmental issues have focused on young people as voices of the future. For instance, the international environmental summit in Rio (1992) remarked that "it is imperative that youth from all parts of the world participate in all relevant levels of decision-making processes because it effects their lives today and has implications for their futures" (Quarrie, 1992:193).

Attempts to include the young into current environmental decisions are somewhat paradoxical given the degree to which young people presently lack effective power. When they do get the opportunity to speak, young people are not always listened to, even by those who have made a point of requesting their input. Even at the Rio Summit, when the official youth representatives arrived for their allotted *hour* on the podium, they were silenced:

> "When they arrived, they were told they only had ten minutes. Two minutes in the TV cameras were turned off; reporters watching in the press room couldn't hear. When the youth tried to tell the eager press what they'd said, UN police arrested them for holding an 'illegal' press conference" (Children of the World, 1994, cited in John, 1996:7).

Young people must be accepted and integrated into the current political and social scene. As Radford notes:

> "The argument against consulting or involving children is usually that they do not have the information, understanding or maturity to make balanced judgments. Leaving aside the fact that this applies to many adults, children are often more aware of the local environment and its shortcoming than their parents, if only because they spend more time in it. If they are unaware of and uninvolved in options and efforts to change it, this may be because no one has bothered to inform and recruit them" (1995:91).

Consulting youth for their views on the environment is important and, if successful, would enhance their agency regarding what can be effectively done to

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16There have been other moves to improve the voice of young people in general with the call for the introduction of a Children's Minster (see Hodgkin, 1997) and regarding environmental issues. For example, in October 1995 Eastbourne held the first International Children's Conference on the Environment. According to the Kids Matters section of the Friends of the Earth publication, Earth Matters (1996, No. 29) 800 environmentally-active young people attended from 85 countries. The event was sponsored by various companies including Rover and British Airways. According to Debbie Simmons who attended the conference "the idea for this Conference came up at the board meeting of the Zoo that I am involved in. We felt that children's opinions were not being listened to and adults weren't taking enough action to solve the problem. Children don't have direct power to make changes but governments do - so it is up to the children to let the governments know what they want done." Incidentally, the conference title was "Leave it to us." I am not sure whether this is a request or a statement of intent.

ameliorate environmental degradation. Radford (1995) complains that young people are bypassed in decision making for environmental policy in the community, regardless of whether they themselves would like to take part. This is an example of Lukes' (1974) theory of power, because young people are not directly stopped from taking part but by virtue of their not being consulted, visible space is not made available for them.[17] For a large number of people, lack of consultation demotivates them to act, and allows their concerns to remain individual rather than building collectively with others. Thus they feel frustrated by their lack of effective ability to change things, or silence their own concerns as insignificant or unassailable.

EMPIRICAL AND PHILOSOPHICAL MODERNITY

The move into modernity was signaled by a growth in reason and science, with the "capacity to bring about a world free from prejudice and superstition" (McCarthy, 1996:85). The need to perceive life away from links with the spiritual world meant a decline in the force of religious dogma. There now emerged a desire to quantify and measure, to explore and understand the world on all levels; locating universal explanations with which to enwrap the world. As McCarthy summarizes:

> "This confident embrace of science as a progressive force for humankind's deliverance rested on the idea that scientific knowledge (itself a *universal* method) pursued universal laws whose discovery led all peoples toward their natural destiny" (1996:86).

Science afforded a whole system of monitoring and explaining life:

> "science represented impersonal reason ... science's truths did not depend on the personal or social traits of the scientist - nation, religion, race. These were, in fact, deemed irrelevant to the scientific enterprise and inimical to its goals...and [are] compatible with the operations and standards of democratic societies" (McCarthy, 1996:86).

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[17] Lukes (1974) suggests that the powerful can not only prevent things from happening or becoming an issue but can also suppress people's interests in issues which would benefit them, not only those interests knowingly suppressed but those which people have no awareness of: "A exercises power over B when A affects B in a manner contrary to B's interests" (1974:34). It could be added here that those asserting power (adults) may not realize that they are acting over others (children) by virtue of the hegemonically accepted age stratification within society, or that they may be doing it with the best intentions but the overall worst outcomes. As the research into children's road safety clearly illustrates, those children who have greater freedom outside have learnt a greater road competence than those who have been denied this experience (Hillman, 1993).

The development of science led to many breakthroughs such as improvements in agriculture, sanitation and medicine which aided the increase in life expectancy and a decline in infant mortality, partly explaining the huge increase in population during this time. Bureaucratic instruments were set in motion to classify and monitor the huge modern population for births, deaths and marriages, and enabled a new history of more, if not all, of the population, who had hitherto been largely ignored.

The empirical quantitative paradigm has been questioned consistently since the growing humanistic influences from the 1960's which have sought to understand a variety of meanings rather than finding a single 'truth'. New social movements seeking equality and freedom for those, for example, of 'Other' races, genders and sexualities, questioned existing versions of 'normality' by highlighting the variability of social life.

Kuhn's (1962) seminal questioning of scientific 'truths'; suggested that science is shaped by norms and expectations which are revolutionized, periodically, by paradigmatic shifts. Thus, science is "something historically variable. As with any other central feature of industrial societies, science changes, as does its place in contemporary societies" (McCarthy, 1996:89).

For example, as discussion of Aries' work earlier in the chapter illustrated how understanding childhood contextually has uncovered the variety of meanings over time. This is a clear example of the way in which what was once considered a formulaical certainty has now been deconstructed offering a broader range of perspectives.

The belief in the universal paradigm was irrevocably tainted by the ability of the social sciences to contextualize findings and so make them responsive to a particular point in time and situation, rather than determining outcomes axiomatically from universal laws:

> "In almost every branch of intellectual life, the twentieth century has witnessed a move away from the universalism and absolutism of modernist epistemology toward conceptions that emphasize particularity and concreteness. The linchpin of this move is the attack on the centrepiece of modernist, Enlightenment epistemology: "man," the rational, abstract, autonomous constitutor of knowledge. In opposition to this conception of the subject, many twentieth-century thinkers posit a subject who is embedded and situated, constituted by language, culture, discourse, and history" (Hekman, 1995:2).

The development of the social sciences has enabled the questioning of scientific claims about society because of their reflexive nature:

> "The discourse of sociology and the concepts, theories, and findings of the other social sciences continually "circulate in and out" of what it is that they are about. In so doing they reflexively restructure their subject matter which itself has learned to think sociologically. *Modernity is itself deeply and intrinsically sociological*" (Giddens, 1990:43).

The movement away from scientific rationality is linked to the focus on cultural influence (Robertson cited in McCarthy, 1996) in determining perceptions of reality rather than perceptions resting on essential qualities. As McCarthy outlines, " 'Culture,' understood as the changing, tenuous, and thoroughly human and contingent ground of experience and knowledge, has operated as the category that represents what universal reason is not" (1996:88).

In late modernity, knowledge has become separated from the universal categories that once made social life certain, predictable and comparable. The perception of scientific inquiry in advanced modernity is that it is "corrigible" (Giddens, 1994:87), and this causes a sense of anomie:

> "The consequences for the lay individual, as for the culture as a whole, are both liberating and disturbing. Liberating since obeisance to a single source of authority is oppressive; anxiety-provoking, since the ground is pulled from beneath the individual's feet" (Giddens, 1994:87).

Additionally, the image of science has suffered because of potential impact of its creations, such as nuclear weapons (Giddens, 1994) and nuclear power (Pepper, 1996) or pesticides (Carson, 1963). It is ironic that while modernist society has been infatuated with exploring the world, it has devoured some of its own potential for knowledge, for example, the hundreds of uncharted plant and animal species destroyed in the rich fauna of tropical rainforests felled for timber and grazing space. Furthermore, it may have permanently and fundamentally changed the natural materials it seeks to chart:

> "Synthetic pesticides ...have been recovered from most of the major river systems and even from streams of ground-water flowing unseen through the earth. Residues of these chemicals linger in soil to which they may have been applied a dozen years before. They have entered and lodged in the bodies of fish, birds, reptiles, and domestic and wild animals so universally that scientists carrying on animal experiments find it almost impossible to locate subjects free from such contamination" (Carson, 1963:31).

Entwined with the growth of cultural recognition is the rise of feminist epistemology which has challenged male-dominated scientific knowledge both for helping to exclude women as scientists and for ignoring them empirically, by drawing conclusions about women from data collected from men.

Like its treatment of the environment, sociology has long ignored childhood, as Lemert remarks "curiously, there are no children in most sociologies" (1995:39). In the twentieth century, much of the social scientific focus on young people has been grounded in developmental psychology. Research has been conducted under the psychological conviction that young people are developing minds, following a linear one-way developmental path towards adulthood, progressing there via stages of psychological development.

Growth defined as the progression through universal stages suggests that all young people follow a set pattern regardless of their background or experiences. As Burman suggests:

> "development is portrayed as either divorced from social and material circumstances, or within so over-simplified and scrutinized a conception of the 'social' that it diverts and proscribes critical evaluation and colludes in the pathologisation of individuals and groups on the basis of their failure to reflect the western middle-class norms that have structured developmental psychological research" (1994:187).

The focus on stages negatively stigmatizes young people who have not reached these 'natural' levels by a given age. Stages have been used, according to Burman as:

> "...an instrument of classification and evaluation, as a tool for 'mental hygiene', a euphemism for the control and surveillance of populations deemed likely to be troublesome or burdensome - working-class children, single parents, minority groups and poor people the world over" (1994:186).

This approach also suggests that young people are incomplete in relation to adults and works to control youth in their everyday worlds by having eclipsed other potential perceptions of them (Thorne, 1994). Concurrently, this perception implies that all adults have a perfectly formed, correct, static, achieved, and realistic view of the world, and that growth ceases upon reaching adulthood when all individuals will have achieved the same level of 'development'; this is clearly not the case.

Dominant views of childhood, especially from developmental psychology, are themselves constructed both within and by social structures. In seeing adulthood as a goal and youth as not yet fully competent, youth becomes secondary. The theory has been, and still is in many areas, hegemonic in building a 'normative' construction of what a child is like, making it difficult to challenge. However, looking at young people in history and across the globe radically illustrates that the idea of universal stages is merely a modernist creation seeking to promulgate the rational educated being to the loss of any other conceptions of childhood.

Sociology has used the work of psychologists to look at how young people become 'normal' adults and are socialized into adult society. For Parsons, socialization bequeaths social knowledge to the next generation thus ensuring the continuation of society.[18] Through his theory of socialization, young people become competent and mature adults as a result of childhood learning. Although he stresses that socialization is a lifelong process he does emphasize the relative significance of socialization during childhood. As he suggested in 'The Social System' in 1951:

> "The term socialization in its current usage in the literature refers primarily to the process of child development. This is in fact a crucially important case of the operation of what are here called the mechanisms of socialization, but it should be made clear that the term is used in a broader sense than the current one to designate *any* orientations of functional significance to the operation of a system of complementary role-expectations. In this sense, socialization, like learning, goes on throughout life. The case of the development of the child is only the most dramatic because he (*sic*) has so far to go" (Parsons, 1982:139).

A whole range of socializers have been suggested to enable young people's assimilation into the social world, primarily the family and school, but also the mass media and peers. However, these sociological studies have been criticized as they are not concerned with the *now* of childhood but with *how* youth are learning to be adult and take up their roles in adult society (Thorne, 1994).

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[18] Marxists would take a similar line albeit negatively aligned to the depersonalizing nature and needs of capitalism. Hence in this perspective there has been talk of cultural reproduction rather than socialization: how children are educated in order to fulfill the work-force requirements of capitalism. There has also been a link made between the advent of capitalism and the decline of youth in the market place. Thus the need of capitalism to have an educated and healthy work-force necessitated that young people remain away from the workplace for a longer period.

The problem with socialization theories is that they focus on the process of what a child *becomes* rather than the interaction taking place between a child and others in the *present*. Caputo notes that the "emphasis on passivity erases many aspects of children's lives including complex relationships of power. The passive model of the child promotes her as standing idly by waiting to be filled with adult knowledge" (1995:29).

Additionally, it assumes a one-way direction of childhood learning. Thorne (1994) is critical of socialization theories because the process of socializing is seen to be directed from adults to youth. Socialization theories predominately locate parents and teachers as the transmitters of information, and young people as its receivers. These theories rarely acknowledge that the young can socialize and enthuse. Kavanagh (1972) displays such a reversal of normative socialization theory in his research which illustrates how immigrant parents learn the new 'home' language from their children who have been schooled in it by the new host country. Thus, it is misconceived to assume that socialization pathways are uni-directional from adult to child. Instead there should be an acknowledgment of the part that young people can play in informing others, particularly in relation to the diffusion of information surrounding environmental issues.

CONCLUSION

Social change in modernity radically moved the location and organization of human settlement. Social groupings tightened, moving away from community, becoming more centred on immediate kin. The nature and type of work changed from agricultural and craft work to industrial factory production. Modernity developed institutionalized structures to oversee the effective control and organization of the growing population. Where once ancestry and tradition held social power, modern power relations became enstructured into institutions, empowered through normative social perceptions, framed by rules and regulations which defined the limits of action and access. The development of the mass media radically changed interpersonal, national and global communication and the diffusion of information.

Childhood became clearly separated from adulthood in modernity with the removal of young people's work, first from the household, and then from the factory, as schooling became compulsory. Young people became family members who did not contribute a full wage into the household. The state, through liberal legislation, and

the child-focused voluntary institutions of civil society, promoted a protective approach to young people.

Environmental problems in modern society have emerged following the intensification of industrial practices. By constantly demanding more of the earth's resources than it can naturally replace, the depletion never has a chance of reversal. Furthermore, the rhetoric of 'children as the future' leads pro-environmental action to become essentially stagnated as this rhetoric exists without the structures or precedent to include young people.

Media responses to environmental issues similarly do not encourage action or change at the structural level. Instead they promote individual solutions such as recycling which, aside from focusing away from institutional responses, works to disavow a collective conscience of those concerned about the environment.

In late modernity, young people have seemingly become less constrained than in the past by traditional structures of class or gender. However, I would argue that these structures are still in existence to a much greater degree than late modernists envisage. Whilst they may have altered from past forms of structure they have evolved rather than disappeared. Until effective tools for monitoring the complexities of constraints are developed, the reflexive thought of late modernity will not visualize such constraints.

CHAPTER 2
ENVIRONMENTAL ISSUES

There has been a variety of institutional responses to environmental issues operating internationally through environmental summits and agreements, and nationally, through policies which, for example, place environmental issues onto the educational curriculum. In addition to this, there has been a consumer response to environmental issues which focuses on individual action through purchasing choice. Additionally, the media have incorporated environmental issues into their output. It has been featured not just as news following of environmental accidents, but also as fictional programming.

Despite widespread acknowledgment and concern about environmental issues, policies towards their reversal and cessation are by no means clearly agreed upon or supported (Adams, 1995). The disparity of focus acts as a retardant for effective action on many levels. It stems, in part, from the differential levels of social development around the world:

> "Modernization on an intensified level and on a world scale brings new social and material scarcities which threaten the very principle of growth and expansion on which modern society turns...modern societies find themselves faced with an array of new problems whose solution often seems to lie beyond the confines of the traditional nation state. At the same time, the world remains dominated by a system of nation states of unequal strength and conflicting interests. The resulting impasse make the resolution of common problems very difficult" (Kumar, 1988:4).

That there has been international movement towards ameliorating environmental problems can be linked directly with the process of globalization. However, that modernization has also occurred unevenly throughout the world becomes strikingly apparent when nations attempt to reach global agreements and there is a clash between nations who have already advanced in their development and those who

are still far behind. For example, at the Kyoto Earth Summit II in December 1997 developing nations refused to be pushed to sign agreements when the US consumption was so high that they disproportionately contributed to global environmental problems, and they more easily had the means to avert the situation. Concurrently, the US were wavering about signing the treaty, as priority is given nationally to political aims and agendas rather than internationally to global environmental health.[1]

Overall, a variety of approaches have been adopted towards thinking about environmental rehabilitation. The official international response is 'Sustainable Development.' This approach was highlighted in a document entitled "Our Common Future," written by the World Commission on Environment and Development, under the chair of the Prime Minister of Norway, Gro Harlem Brundtland. The idea of sustainable development is to live within the limitations of "the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities" (WCED, 1987:8) without disrupting the needs of future citizens.

"Sustainable development" has been globally adopted by governments because it is a policy that has been established, agreed upon by many countries and works at preserving and maintaining the environment without too radical[2] a change to our existing social structure. However, this approach to the environmental crisis is not accepted by everyone who is concerned about the environment. For example, Brown, Flavin and Postel question its effectiveness:

> Time to get the world on a sustainable path is rapidly running out. We believe that if humanity achieves sustainability, it will do so within the next 40 years. If we have not succeeded by then, environmental deterioration and economic decline will be feeding on each other, pulling us down towards social decay and political upheaval. At such a point, reclaiming any hope of a sustainable future might be impossible" (1991:300).

Thus, although internationally the modern global bureaucratic states have attempted to contain and restrain environmental problems they do so from disparate aims and levels which marks the stark contrast of the degree of

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[1] See Christopher Cairns (17/6/97) 'Grubby Truth of American Dream' Scotsman Newspaper

[2] Indeed, some people (WCED/Brundtland, 1987) see the adoption of sustainable development as radical change!

modernization of various nations and draws a barrier around a united international environmental focus. The notion of sustainable development has worked to maintain the developments of modernity whilst sparing a radical change in that development. As Spaargaren & Nol suggest:

> "In political terms, sustainability deals with institutional developments in modern society with relation to its sustenance base. ... Economic growth and technological development, two important institutional traits of modernity, are therefore seen as compatible with and sometimes even as a condition for sustaining the sustenance base, rather than as the main cause of environmental destruction" (1995:619).

In a similar vein, other groups reject any notion of re-balancing the environment within the boundaries of current social structures. 'Deep Greens' argue that industrial society destroyed the Earth's natural equilibrium in the first place. They see no possibility of achieving sustainable development in current social structures, particularly when consumption is already so high. The Deep Ecology argument places the natural environment at its heart and "rejects the *dualistic* view of humans and nature as separate and different. It holds that humans are intimately *a part* of the natural environment: they and nature are *one*" (Pepper, 1996:17).

The contradictions between these two approaches have been summed up by Naess who notes:

> "(Deep Green) ecologically responsible policies are concerned only in part with pollution and resource depletion. There are deeper concerns which touch upon principles of diversity, complexity, autonomy, decentralization, symbiosis, egalitarianism, and classlessness ... [In comparison] The Shallow ecology movement ... [aims primarily for] the health and affluence of people in the developed countries" (1973:95).

While the effectiveness of sustainable development is questionable in the long-term, the short-term need to obtain international co-operation takes precedence over reconstituting the earth's natural environment. However, how quickly international co-operation will be found in the future for more radical policies is the crux to the future success of environmentalism via sustainable development.

ENVIRONMENTAL CONSUMERISM

The market response to environmental problems has been to create or remarket products rather than ceasing or altering their output.[3] Environmental concern has created a new consumer industry, the products of which are sold on the basis of their purported benefit to the planet.

McCormick (1991) notes the adoption of green values, re-marketed, by a disparate, and often unlikely set of companies, such as petrol industries owned by Shell and Esso. There has even been a competitive approach to advertising:

> "rival UK supermarkets ran full-page newspaper advertisements boasting of their haste in banishing CFC's from their new warehouse-cooling systems and of the environmentally-friendly practices of the farms from which their food was obtained" (McCormick, 1991:99).

While some positive educational benefits may be had for the consumer, for example, information provided by some businesses and shops such as the do-it-yourself chain, B&Q (Stephenson, 1996). Stephenson (1996) advises that this should not be seen as a completely altruistic act, given the ultimate profit motive of business. They have had to change in the hope that by being environmentally-friendly they will become even more consumer friendly.

Young people have also been targeted by eco-consumerism. Elkington & Hailes, authors of the famous Green Consumer Guide (1988) brought out a copy for young people which "set(s) out to show what *you* can do to help create a cleaner, greener world...Everybody can do *something*, and what we do now counts more than at any other time in history" (1990:6) and later,

> "You will be surprised how much power you have as a green consumer. Once you start to choose between things which harm our environment and those which are less damaging, you will be forcing the makers of harmful goods to change their methods. If they don't change, and if you still refuse to use their brands, then they risk going out of business" (1990:6-7).

Eco-consumerism has incensed some environmentalists because of its implicit acceptance of capitalism and its individualizing of pro-environmental actions which some feel place too much value on the ability of the individual to make much effective environmental noise in the global political forum (Pepper, 1989/90). For

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[3] Unless forced to do so by legislation, such as for CFC use.

instance, Yearley notes a Guardian news story of 'Green Shopping Day' in 1989 in which certain environmentalists said they were "favouring a no-shopping day" (1991:103).

EDUCATION

Calls were made at several international environmental summits in the 1970's and 1980's for a more formal approach to teaching about the environment. In 1972, at a United Nations conference in Stockholm, the establishment of environmental education in schools was proposed.[4] At the conference in Rio de Janeiro it was suggested that governments should quickly establish or renew their environmental education approaches in all levels of the school (UNCED, 1992).

Scottish Environmental Studies Curriculum guidelines "recommend that a minimum of 25% of the pupil's time, over the seven primary years, should be devoted to Environmental Studies." [5] While this sounds a considerable amount of time it is, in fact, not simply devoted to the environment *per se* but covers science, social subjects, technology, health education and information technology and other areas which cut across the curriculum (Scottish Office, 1993:9). This broad range of subject areas plans that pupils should:

> "achieve knowledge and understanding of the environment ... develop skills which will enable them to interact effectively with the environment; progressively recognize the knowledge, understanding and skills associated with Science, Social Subjects and Technology; develop knowledge, understanding, skills and attitudes associated with Health Education; develop knowledge and understanding of, and the capacity to use, Information Technology; develop informed attitudes and values relating to the care and conservation of the environment" (1993: 2).

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[4] The proposals made at this conference were built upon during several further conferences including; Belgrade (1975); Tbilisi (1987); Earth Summit, Rio De Janeiro (1992).

[5] The Scottish Office curriculum guidelines are careful to distinguish environmental studies form environmental education. They note that, "Environmental Education is concerned with the interaction between people and the environment. It seeks to promote concern for the needs of the environment and action to conserve and improve it. Environmental Studies plays a major part in Environmental Education by giving pupils the knowledge and skills to understand and interpret the environment. It should go further, however by encouraging and providing opportunities for the development of informed attitudes towards the environment. Such attitudes are related to the need to care for the environment in its immediate, local and global contexts and top the desirability of taking an informed position on topical and important issues throughout the world" (Scottish Office, 1993:2).

Despite the careful outlining of the curriculum, how it is applied in schools may vary tremendously. While some schools offer a holistic approach to implementing the cross-curricular environmental education within environmental studies, both within the formal curriculum and informal curriculum,[6] overall "implementation is patchy" (Smyth, 1996:14).[7]

Hicks and Holden see environmental education through the National Curriculum as inadequate as it "entitles pupils to preparation for 'the opportunities of adult life' and yet offers little guidance on what education, for a more sustainable society in the twenty-first century might look like" (1995:3).

Others critique educationalists for basing their work around the 'unacceptable' framework of sustainable development:

> "much of the dominant discourse in environmental education has been based upon a technocentric or instrumental rationality and approach to environmentalism, which aims to enhance environmental management and control by seeking scientific and technological solutions to urgent environmental problems...
> "any reconceptualisation of environmental education will have to be extended to analysis of the relationship between education and the reproduction of the environmental values and practices of capitalist societies. Trainer (1990, 1994) has argued that both the overt and implicit (hidden) curricula in schools play a major role in reproducing the ecologically unsustainable values of industrial affluent consumer society" (Firth & Plant, 1996, 197-199).

In contrast to the above critique, in some parts of the world the teaching of environmental issues has itself been criticized for being too radical. In the United States:

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[6] For example, an innovative primary school in Edinburgh plants a tree in the school grounds when a pupil first starts school. The idea being that the tree grows with them during their time at the school.

[7] In a recent article in the Times Educational Supplement (Scotland) the main headline read "Back to Basics for Curriculum: Primary heads applaud director's move to ditch time given to environmental studies." The article shows the down side of funding and time constraints was made plain when it was reported that, "one of Scotland's largest councils has taken a lead in breaking openly with the 5-14 guidelines on environmental studies and says this is the only way to implement ministerial policy on literacy and numeracy in the early years" (1997:1).

"Conservative and Religious Right groups contend that environmental education is creating a generation of 'eco-cultists', indoctrinated by 'emotionalism, myths and misinformation' from green activists, simply repeating the mantras of 'Save the World;' or "Green is Beautiful' without any understanding of the issues" (Helmore, 1995).

MONITORING THE ENVIRONMENT AND ENVIRONMENTAL CONCERN

Although historically, sociologists have made connections between society and the natural world, only recently has a direct evaluation of the environmental impact of human societies, particularly industrial societies, been developed. The connections that have been made have been done so anthropocentrically, favouring the human species at the expense of others on the planet in a blanket denial of the existence of other forms of knowledge and ways of focusing sociologically. As Martell suggests, because sociology itself was born out of the modern era, it cannot easily escape from such a fixed focus:

> "The sociology of industrialism is limited in ignoring, first, the environmental consequences of social processes - pollution, for example. Second, in a reverse direction, it ignores the range of factors which affect societal development which are natural as well as social - resource availability, for instance" (1994:16).

and later:

> "They fail to break out of that relationship to a conceptualization of the relations between industry and society on one hand and the external natural world on the other: how they impact on that external natural world with resultant effects back again and how that external world imposes constraints and limits in its own right" (1994:20).

In recent years there has been a re-examination of the sociology of the environment. For instance, Martell (1994) along with Benton (1989) and Redclift (1987) arguing from a Marxist position, have cited capitalism and industrialism to explain planetary environmental damage. This perspective questions the viability of sustainable development in a system which is itself seen as the problem.

From another perspective, Hannigan, amongst others, has played the social constructionist card suggesting that the approach to environmental issues should

be to look at how issues are perceived and presented rather than the actualities of the problem:

> "It is misleading to tar all those who adopt a social constructionist perspective on the environment with the brush of absolute relativism. For example, the assertion that global warming should not necessarily be taken at face value as an established scientific fact but rather be seen as something which is open to the social construction of scientific and popular knowledge does not constitute a denial that greenhouse gas emissions exist or that they might possibly have global impacts. Rather, what is being suggested is that the 'natural effects'... may be visualised in a number of quite different, even contradictory, ways and that in turn these interpretations vary according to a variety of factors: interests, cultural background etc. This is even more likely to be the case where these effects are not directly experienced but are knowable only in the form of scientific data" (Hannigan, 1995:188).

Whilst it is important to understand broad structural issues underpinning the decline of the environment, an appreciation of the perception of these issues is also vital. It is essential, both at a macro- and micro-level, to know, for example, how and why people become involved in environmental issues whether it be on a personal level or a political level. Knowing the values and attitudes that people hold means that there can be a targeting of issues which lack public support, and a deduction of how best to create a broad base of concern and knowledge.

Many studies have been undertaken to find the social type of person most likely to become involved in environmental action or be sympathetic to the environmental cause. A variety of social categories have been assessed for significance: gender, ethnicity, class (including occupation, educational level, income); geographical residence; age; partisanship, ideology and so on.[8] However, when the findings are taken together they do not draw any firm conclusions about social categories and environmentalism.

On the basis of gendered concern towards the environment, some eco-feminists see an essential characteristic of womanhood as being close to nature (Daly cited in Pepper, 1996) and suggest that they should therefore be more concerned about the natural environment. Similarly, extending the work of Gilligan (1982/1993) suggests that women may have different approaches to men when dealing with environmental problems. Gilligan believes that men and women use different moral

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[8] See van Liere and Dunlap (1980) for a comparative review of these studies.

reasoning in gender-specific ways: men will reason in abstract concepts of laws and principles, whereas women tend to think about each individual situation and its context, aiming to minimize hurt for all involved and to maintain connections with them. If Gilligan's theory is accurate, women might have different environmental convictions, goals and concerns than men.

The empirical work examining gendered environmentalism has been inconclusive. Van Liere & Dunlap (1980) provided an overview to many of the surveys carried out in the late 1960's to the late 1970's. They noted inconsistent findings for gendered levels of environmental concern: some surveys suggested greater environmental concern in females, others for males, and others still found no difference between the sexes. These inconsistent findings can be identified in more recent work. Lyons & Breakwell (1994) found that gender was not relevant criterion for predicting environmental concern amongst the 13-16 year old young people in their research.[9] However, Stern, Dietz & Kalof (1993), although suggesting overall gender inconsistency, report work by Mohai (1992) which emphasizes the different types of concern held by adults: women are more concerned with issues in their locale, men are more likely to take action beyond the household for the environment. Similarly, Hausbeck, Milbrath & Enright (1992) researching 16-19 year old young people in New York, found that whereas girls tended to be more environmentally concerned than the boys, it was in fact the boys who had stronger environmental knowledge.

Stern et al (1993) note the work of Blocker & Eckberg (1989) and others who discuss the effects of being a parent on environmental concern. Having children makes men concerned about the economic ramifications of environmental problems and women worry more about issues at a local level.[10]

Socio-economic background is another predictor of environmental concern which has been examined for influence. Here again the responses are equivocal. For example, Skogen (1996) found a positive link between class and environmental concern amongst the 13-19 year old people he studied, as did Lyons & Breakwell

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[9] Skogen (1996) makes a similar discovery with his sample (n=5624) of 13-19 year old Norwegians.

[10] As *Chapter 5* will outline, this can be potentially linked into Gilligan's (1982/1993) theory that women value maintaining connections and care, and men make moral judgments on the basis of instrumental reasoning.

(1994). On the other hand, Milbrath (1986) summing up a variety of research articles, suggests that, in fact, it is not clear because whilst "socioeconomic status is weakly related to expressions of environmental concern and...environmental protection; there is contradictory evidence on the direction of the relationship" (1986:113).

In a similar vein, parental occupation has been found by Skogen (1996) to be significant in relation to young people's environmental interest. His research suggests that young people whose parents work in the 'humanistic/social intermediate strata' are much more likely to hold membership of environmental organizations than if their parents work in the 'technical/economic intermediate strata,' declining even more when parents are employed as 'clerical workers, farmers/fisherman or manual workers' (1996:460).

Skogen (1996) has identified what could be considered 'cultural capital'[11] using Bourdieu's (1984) term. He found in the young people he studied, that ownership of items, such as books, had a positive relationship with membership of environmental organizations although he does also link this factor to class. However his overall findings show a more complex pattern, leading him to conclude that:

> "The findings demonstrate that class background influences attitudes toward the environmental movement and environmental issues. However, other factors such as education, cultural assets and gender, clearly have an impact on this relationship" (Skogen, 1996:465).

Looking at the whole of the adult population, Lowe and Rudig (1986) report in their review article that existing work has highlighted that those at the younger end of the age spectrum are more concerned than others. This can be explained by the fact that recent generations have lived during times of high environmental awareness and events. Alternatively, it can be seen as reflecting the opinions of those who have not been drawn into mainstream society and who do not hold conservative and traditional views. Milbrath, using a rather unconvincing argument, explains it more cynically as:

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[11] Cultural capital refers to the distribution of various cultural practices among different classes which, for example, enable middle class people to benefit over working class people in the school system.

"Simple self-interest helps to explain some of this relationship; undertaking several years of effort to clean up the environment can hardly be as important to someone who expects to live only another eight or ten years as it is to a person who is looking forward to sixty or more years of continued life" (1986:112).

Regarding young people, age has been found to make no difference regarding concern, in the 13-16 year old sample in Lyons & Breakwell's (1994) research. Whether these narrow age ranges will, at some stage, elicit age-structured differences of concern is impossible to tell without a longitudinal study.

Tanner (1980) and Palmer (1995) and Palmer et al (1996) in a novel direction, have been researching the variety of influences suggested by current environmental educators as important instigators or enhancers of their environmental concern. By surveying at three different age sets of environmental educators (under 30 years old; those aged between 30-50 years old; and those aged over 50 years old) Palmer (1995) found that although, like Tanner, outdoor/nature experiences were identified as the most importance influence for all age groups, in the youngest age group, the media were also cited as highly influential.

In an alternative explanation, Finger (1994) drawing on Habermas's notion of the 'life world'[12] connects fear to the environmental concern held by the Swiss adults that he studied. He suggests that fear increases the amount of knowledge and information that one will locate. However, in locating more information, Finger notes that people may fail to add any pro-environmental domestic behaviour or activism into their repertoire. Thus, beyond classic sociological categories of analysis, he suggests that it is environmental experiences and concern about them that lead people to undertake environmental behaviour.

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[12] Finger (1994:142-3) approaches meanings assigned by individuals as being "embedded in his or her life world, as opposed to seeing the individual as a more of less autonomous actor constantly negotiating his or her relationship with the (natural and social) environment," and is made up of life experiences, world views and behaviour "Significant life experiences shape one's world view and behaviour, and both, in turn, have an influence on the kind of experiences one can have." "In the life world approach there therefore exists different types of behaviour that go together with particular life experiences and world views."

The disparity of overall findings disinclines an explanation of environmental concern relating to the traditional social categories (i.e. class, gender, age), alone.[13] Witherspoon (1994) suggests that environmental concern in recent years has dispersed throughout the population. This adds into the work of Finger (1994) and Palmer (1995) who focus their research on other potential categorizing factors beyond the confines of traditional social categories. It is the breaking of traditional allegiances and life frames[14] which Beck (1992) and Giddens (1990, 1991) categorize as leading us, in late modernity, towards greater individualization and independent lifestyles and choices.

However, there is no certainty that categories such as gender and class do not influence environmental concern. Perhaps it is the complexities of concern that have not been effectively gauged. This suggests that more qualitative research should be undertaken in order to appreciate the complexity of locating who becomes concerned and why. As Hausbeck et al note:

> "Knowledge, awareness, concern, level of student, and exposure are so interactive and reciprocally causative that we can only say they form a learning system. Any attempt to isolate cause and effect would be more of a distortion than an informative explanation" (1992:32).

Van Liere and Dunlap, frustrated by the equivocal findings across a broad range of surveys into the social factors behind environmental concern, call for research to be issue specific to acknowledge and distinguish the broad range of issues under the environmental umbrella (1980:193).

Given the complex nature of environmental interest, values and concern, it is easy to mistake similarities and differences between surveys as adding to comparative findings when in fact they may all measure very different things. For instance, while gender may be found to be significant in two studies, it does not necessarily mean that genders react differently to environmentalism *per se*, as the two studies might be measuring vastly different types of environmental problem, concern and value systems. Although evidence of gendered reactions is found in both studies, the same

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[13] However this may instead reflect the limited ability of social categories to explain complex data.

[14] By life frames I refer to the life styles, experiences, expectations and chances available to people on the basis of their social class, gender, age and situation.

sympathies and concerns and willingness to act and change behaviour might not be present.

In addition to the variances in findings, there is the possibility of different interpretations of what being 'environmentally concerned' means. To some people, environmental concern will result in a huge change in behaviour and beliefs, challenging the very structures of society. To others, environmental concern means giving money or time to environmental pressure groups and careful consumerism through buying 'environmentally-friendly' products.[15] To others still, having 'environmental concern' has not led to any change in their behaviour.[16]

Factors compelling environmental concern may also be affected by perceptual responses which emerge beyond traditional social categories. In addition to emotional responses such as fear (Finger, 1994), recent work has suggested that there might be a "generational amnesia" whereby people think they are not affected very much, because the problem is not, for example, choking them (Kahn Jr. & Friedman, 1995). Thus, concern may be affected by one's perception of time in relation to environmental issues. Human time is very short in comparison to that of the planet. As Illustration 1 shows, Greenpeace made a very effective advert based on this perceptual gulf. The gap in understanding may create a distortion of the perceived severity of the problem both now and in the future and lead to people not being as concerned as they might be.

In conjunction with this, given the focus on wide scale changes and the devastation that they are forcasted to bring, people may be looking more for "acts of faith" such as large scale disruptive disasters and change, rather than a general (irreversible) accumulation of gases in the atmosphere which they cannot see and therefore believe do not place them in immediate danger.

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[15] Surveys have identified the most regular environmentally-friendly behaviour undertaken as the use of ozone friendly aerosols. Other 'environmentally-friendly' behaviours undertaken include (sorted from the most common down): pick up other people's litter, avoid pesticide use in gardens, take glass bottles to the bottle bank, cut down on the use of electricity, collect old newspapers for recycling, use an alternative mode of transport to car, use recycled paper, make compost for the garden out of kitchen waste, use unleaded petrol, buy phosphate-free washing powder. (Department of Environment, 1989).

[16] However, Krause (1993) has highlighted the ambiguity of survey responses regarding concern. When Krause asked people "All things considered are you an environmentalist" rather than "Are you an environmentalist" there was a move, in comparison to other studies, of a quarter to the "not sure' category.

ILLUSTRATION 1: GREENPEACE ADVERT

Planet Earth is 4,600 million years old.
If we condense this inconceivable time-span into an understandable concept, **we can liken the Earth to a person of 46 years of age.**
Nothing is known about the **first seven years** of this person's life, and whilst only scattered information exists about the middle span we know that only at the age of 42 did the earth begin to flower.
Dinosaurs and the great reptiles did not appear until one year ago, when the planet was 45. Mammals arrived only 8 months ago: in the middle of **last week**, human like apes evolved into ape like humans, and at the weekend the last ice age enveloped the earth. **GREENPEACE**
Modern humans have been around for four hours. During the last hour, we discovered agriculture. The industrial revolution began a minute ago. During those **sixty seconds** of biological time, humans have made a rubbish tip of Paradise.
We have caused the extinction of many hundreds of animal species, ransacked the planet for fuel and now stand like **brutish infants**, gloating over this meteoric rise to ascendancy, on the brink of the final mass extinction and of effectively destroying this oasis of life in the solar system.

Help improve this 46 year old's life expectancy   Join or donate to Greenpeace now. Call us on our credit card hotline, (071) 226 6010, (24hrs), or fill in this coupon: □ £14.50 Single   □ £19.50 Family/Household   □ Other donation £ _____   □ I enclose cheque/PO for £ _____   payable to Greenpeace Limited.
□ Please charge my Visa/Access a/c no. □□□□ □□□□ □□□□ □□□□ Signature _____   Expiry date _____
Name: Mr/Mrs/Miss/Ms _____   Address _____
                                                                    Postcode _____
Please return to: Greenpeace, FREEPOST, NU 944, Northampton NN3 6BR.   G6N023   I am a member of Greenpeace Yes □ No □

NATURE BECOMES CULTURE: THE ENVIRONMENT IN THE MEDIA

Media coverage of environmental issues over the last twenty years has been elastic (Downs, 1972), sometimes getting lots of coverage and sometimes barely a sound bite.[17] In recent times, as a former Observer newspaper reporter notes, although there is much less "political hard news" the "environmental dimension now pervades the features, health, science, business and even motoring pages to a degree unthinkable five years ago" (Ghazi, 1997:4). However, Gauntlett (1996) suggests that much of the environmental output of the young people's programme Blue Peter, while strong in the early 1990's has now receded off the agenda.

The perceived drop in television [TV] environmental media output both from the news and from young people's programming may possibly reflect a saturation of topics. For instance, once a documentary about the Greenhouse Effect has been broadcast, programmers will not seek another on that topic for sometime. Furthermore, the way a news schedule is structured means that even when an environmental piece is set for inclusion, other news 'breaking' stories' may replace it because environmental stories can be broadcast anytime whereas other news stories often cannot (Sellers and Jones, 1973).

Research has suggested that environmental news is often geared around reports of environmental disasters (Lowe and Morrison, 1984; Mazur, 1990; Linne and Hansen, 1990) or environmental events often created[18] by environmental pressure groups to gain attention (Lowe and Morrison, 1984). However, this results in the issues moving off the news agenda and so not being followed up, whether the environmental problem has receded or not (Molotch and Lester, 1975; Nature, 1993).[19] Additional problems encountered by journalists reporting on environmental issues are how to express scientific ideas clearly enough for a lay public (Farago, 1976; Nelkin, 1987) and how to make often dull information appealing. Journalists often adopt hyperbole, dramatic language (Nelkin, 1987) and the personalizing of stories (Mazur, 1990) for this purpose.

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[17] Although Nicholson-Lord (1997) notes that concern becomes higher and higher with each up-swing in media coverage.

[18] They are often filmed by environmental pressure groups and then sold to the media networks for inclusion in broadcasts.

[19] Other types of media output also fail to follow-up the issues that they tackle. Although some fictional output deal with issues in a lengthier manner though serialization, for example, Edge of Darkness (BBC).

The only news broadcast which makes a point of following up specific items of news is the BBC news programme Newsround which is made for young people and which places the environment at the top of its agenda.[20] The continual prioritizing of environmental issues on Newsround has, according to its editor, Nick Heathcote.[21] had significance in raising a consciousness about environmental issues amongst young people, even to the point of being so ingrained in the audience that they think about the issues quite "intuitively" (Gauntlett, 1996:63).

> "Newsround is a bit of a drip-feed, it goes out five days a week, it's now 24 years old, it's been going out a long time, and it's covered environmental stories *consistently*, not because it was fashionable, but on a consistent basis. I think that inevitably will have had quite a major impact in terms of people's understanding of the problems. That's what it's about, it's about making people aware of it, putting it art the top of the agenda. I think that's happened, I think it *is* now in the top of the agenda for most young people, as an issue" (Gauntlett, 1996, 62).

While the above research into the making of news has unpacked the problems encountered in turning and broadcasting environmental information into environmental news, it lacks insight into just how the final story is received by the public and if it works to activate environmental concern.

Some research has sought to find out whether there is a link between media content and public concern; whether the media have enough power to set the agenda on environmental issues. Researchers have made positive links between the environmental issues dealt with by the media and environmental concerns held by the public (Atwater et al, 1985; Funkhouser, 1973; and Protess et al, cited in Hansen, 1991).[22]

However it may be that some respondents might simply relate items they have heard about on the media rather than give their own concerns (Hansen, 1991). Furthermore, examination of a variety of studies, led Lowe and Rudig (1986; also see Hansen, 1991) to conclude that even when there is a low level of environmental

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[20] Gauntlett notes that BBC audience research has shown that "In fact 75% of the Newsround audience are adults" and that the programme's audience is larger than the combined number who view Breakfast News and Newsnight (1996, 60: footnote 12).

[21] Nick Heathcote was interviewed by Gauntlett (1996) during his time as editor of Newsround (1989-1996).

[22] This links to the media theory of agenda-setting which proposes that "the media may not always be able to tell us what to think, but they are strikingly successful in telling us what to think about" (Cohen, 1963:16).

reporting, public opinion is consistently high. Thus, public concern about the environment does not decline as a result of less reporting. To dispel the argument that the media create environmental concern, Sellers & Jones (1973) found that sources of environmental media alter depending upon how environmentally concerned one is. They suggest that those most concerned refer to several sources for their information about the environment. Thus the 'agenda setting theory' of media is inadequate as it fails to appreciate the complexity of audience concern, reception and their use of other sources of information.

Despite the mass media being the greatest sources of environmental information, for environmental educators, media output may not in fact enhance their work because they are not integrated with any other educational material:

> "Even though the fact that the mass media act as major sources of information on the environment is internationally seen as a welcome trend...it should be noted that the type of information being provided and the ways it is provided need to be carefully assessed as well as its suitability to certain groups" (Filho, 1996,101).[23]

Media researchers are now assessing the ways in which the audience decode environmental information from the mass media. Recognition of the ability to read texts in a variety of ways, stems from Hall's (1985) appropriation of Parkin (1972). Hall found that media texts could be said to be read by the audience either along the lines intended by the programme makers (dominant); partly taking what the programme makers intended and partly taking a different interpretation (negotiated); or by reading it differently to what was intended by the programme creators (oppositional). Morley (1980, 1986) and subsequent work on audience reception has further analyzed these categories by adding variables such as gender and ethnicity as influences on textual readings.

This research has led to the acknowledgment of the diversity of audiences and the variety of readings that they may make from a text. As Thompson notes:

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[23] A similar concern has been raised by Samuel (1993) who notes that because school teachers pick up a lot of their knowledge about the environment from the media it does not help them achieve an overall and full understanding of environmental issues.

"Interpretation, as Gadamer would say, is not a presuppositionless activity: it is an active, creative process in which the interpreter brings a set of assumptions and expectations to bear on the message which he or she seeks to understand. Some of these assumptions and expectations may be personal, that is, unique to a particular individual from whose life history they stem. But many of the assumptions and expectations that an individual brings to the process of interpretation are of a broader social and historical character. They are the common assumptions and expectations that are shared by a group of individuals who have broadly similar social origins and trajectories. They constitute a kind of implicit background knowledge which individuals acquire through a gradual process of inculcation, and which provides them with a framework for the interpretation and assimilation of what is new" (1995:41).

Audience reception studies of environmental media have been conducted by Corner et al (1990a, 1990b) who examined audience reactions to several documentaries about nuclear power; and Burgess et al (1991) who examined reactions to a documentary about the plans to build a theme park on land local to the respondent's home. This research has been important because as Burgess notes "there has been very little substantive research to support or refute assumptions about the impacts and effectiveness of environmental communications on difference audiences" (1993:51).

Burgess et al (1991) found, akin to Sellers & Jones (1973), that audience responses to the documentary varied in relation to people's interest in environmental issues. For example, the focus group of people who were interested in the environment suggested that, "media coverage of the environment...provided continual stimulation for ... commitment to keep fighting and to campaign for change" (1991:506).

Furthermore, whereas those interested in the environment brought wider issues, such as political reaction, into their discussion, and could use "their knowledge, experience and ideology (to) make it possible for them to render the abstract real" (Burgess et al, 1991:505), those who were disinterested kept their conversations focused on the television programme.

Despite a relatively large amount of research looking at the environment as news or documentary, little research has been conducted upon young people as consumers of environmental information and the breadth of media items aimed at them. For example, the late 1980's and early 1990's witnessed a surge of environmental

storylines placed within existing young people's media along with newly created environmental media, such as cartoons.[24]

My MA research (Grundy, 1993) identified the themes of these environmental cartoons and concluded that it was the individual who was shown to be responsible in solving environmental problems and this focus far outweighed the attention to the widescale structural causes of the issue.[25]

The BBC youth programme, Blue Peter, has adopted green issues into its programming with a similar focus on individual responsibility. The editor, Lewis Bronze feels that:

> "Blue Peter is very largely about empowerment, about making children realise their own worth as individuals, and enabling them to do things. And the environment has a big part to play there. You can actually make a difference in your own life, to the way you live your life, and you can benefit the environment around you. And children - who can't vote, who can't drive, who can't get on a plane and go abroad on a holiday, who don't have large amounts or even small amounts of disposable income, but they can, you know, [...] use a bike instead of going in the car, they can say let's use the car less, they can turn lights off. I mean these are all small things, but to a child these are effective things. [...] Tiny things, but I really do believe they make a difference" (Gauntlett, 1996:58-59).

While environmental media programming can offer awareness at an early age, such messages are not gathered in isolation. Instead, they are viewed within a context which may or may not support media treatment of the issues. It is therefore wrong to grant special reforming power to these messages, particularly without asking young people who view these programmes what they think of them.

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[24] These included cartoons such as *The Smoggies; Toxic Crusaders; Swamp Thing; Captain Planet and the Planeteers; Uncle Jack and Operation Green; Fern Gully - The Last Rain forest; Freddie as FRO7; Once Upon a Forest.* Many of the cartoons are based along the Superman genre implanted into an environmental hero who solves environmental crises in each episode, often with the help of concerned children. The cartoons emerged with the usual supply of children's cultural items linked to the programme such as storybooks, clothing, action dolls and so on.

[25] For example, the catch-phrase of the cartoon of 'Captain Planet and the Planeteers,' which is repeated throughout each episode, is "The power is yours." Furthermore, each episode is ended with a 30 second talk to the audience about how their behaviour can help the environment. Thus the emphasis is placed very much on the individual rather than society or the state.

In an innovative piece of research, Gauntlett (1996, 1997) chose to locate the types of environmental messages that groups of 7-11 year old people made when provided with a video-camera. This approach allowed young people to become actively involved in the research and to be creative, to a certain extent, away from the adult gaze. Gauntlett found that young people tended to make videos on local rather than global environmental issues, and settled on topics that emphasized the need for individual action rather than industry or government action.

CONCLUSION

This chapter and the preceding one have set the context with which the four data chapters (*Chapters 4-7*) will be embedded. Recent sociological explorations relating to environmental issues have ended a relatively long-standing neglect of the natural environment and begun to reconnect culture and nature from having been so strongly separated since the onset of modernity. Marxists, for example, have focused on the industrial or capitalist cause of environmental issues. Social constructionist thought has sought to discern how environmental issues are perceived and expressed rather than the issue itself. It is crucial to our understanding of environmental issues to know how they are perceived, and what works to shape our perceptions. Indeed that is what this thesis revolves around. The existence of structures as the cause, control and information about such damage is also vital to comprehend. Citing both these approaches as relevant, rather than choosing one, may seem incommensurable, but they are different sorts of knowledge which can add to our understanding of the whole. As Hekman notes of her own focus:

> "It does not embrace relativism but moves to an epistemological stance that displaces the absolute/relative dichotomy. It does not define knowledge as *either* absolute *or* relative, but, rather, as situated, connected, and discursively constituted" (1995:32).

Institutional responses to environmental problems have included a series of international conferences concerned with monitoring and combating environmental problems. Their solution has been to develop a policy of sustainable development which seeks to prevent depletion of the earth's resources beyond their natural capacity of replenishment.

Critics of sustainable development argue that this approach is inadequate because it operates within the social structures causing environmental problems in the first

place. To these critics, sustainable development and consumerism are untenable responses and should be replaced by more radical actions.

Other institutional responses have been to place environmental issues on the school curriculum to enable the next generation to emerge with a clear and broad understanding of the issues. Consumer goods have also appeared to 'help' solve environmental issues. Since the 1980's a gamut of goods have been marketed on the basis of their environmental friendliness.

Other sociological work surrounding the environment has sought to establish the type of people that become interested and active in environmentalism (See van Liere & Dunlap, 1980 for a summary). The overall findings of this work have been inconclusive, suggesting that the picture is a great deal more complex than can be solely accounted for by traditional social analysis categories such as gender or class.

Media research has examined the role of the mass media in diffusing information about the environment. In recent years, media studies have moved from focusing on the content of environmental media to seeking an appreciation of how that content is put together and shaped by organizational procedures and how audiences receive the output. Work examining audience appreciation of environmental issues has suggested that those who are most concerned about environmental issues use media programmes in very different ways to those who are disinterested (Burgess et al, 1991).

CHAPTER 3
RESEARCHING YOUNG PEOPLE

This research studies 28 pupils from a Primary 7 school class[1] of young people (aged eleven to twelve years old). Such a small sample is common with the inductive qualitative framework and exploratory nature of the research. The data were collected using several methods: interviews, focus groups, and questionnaires.[2] In selecting these methods I aimed to establish a broad comprehension of the respondents' environmental information sources, environmental concerns, experiences and behaviours. As the media are by far the most commonly cited source of environmental information[3], this research sought to identify what the respondents thought about selected media texts containing environmental themes. Young people's reception of environmental media is an under-researched area, and one that I have been interested to explore following my MA dissertation research (Grundy, 1993) which examined the themes contained within selected cartoons dealing with environmental issues.

This chapter argues that researching young people, although not requiring special methods *per se*, requires some different emphases in comparison to most adult participants because young people lack certain rights which adult status confers. These considerations have less to do with the person being researched and more to do with the political and social shaping of childhood which identifies young people as needing protection for their own good or against the intrusion and dangers of adults and broader evils in society.

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[1] Primary 7 is the final year of primary school in Scotland.

[2] The research began in January 1996 with a questionnaire. This was followed by 6 focus groups relating to the cartoon, then 12 individual interviews, and finally, 6 focus groups relating to the documentary. After this, in June 1996, the parents were sent their questionnaire (sent twice - a month apart to try and improve completion rates) and I interviewed the Head Teacher.

[3] See for example Waterton & Wilkinson for the Scottish Office (1991); MORI for the Nature Conservancy Council (1987).

The impact of these concerns necessitates considerations of power, access and ethics when researching 'minors'. The different *power* levels between researcher and researched can easily become accentuated when collecting data from young people. *Access* considerations back-up these power differentials. Who should be asked when one wants to research young people: teacher, parent or their child? What happens if one refuses but another does not? *Ethically*, to what degree are young respondents aware of the ramifications of their taking on the role of respondent?

RESEARCHING YOUNG PEOPLE

EPISTEMOLOGICAL FOUNDATIONS

Moving away from such rigidly defined biological notions of childhood (as outlined in *Chapter 1*), recent work in the sociology of childhood follows Hardman's notion of young people as a 'muted' group (1973:85) who need a direct focus in research. This approach draws heavily upon interactionist, anthropological and ethnographic epistemology. It looks in-depth at childhood from the eye-view of the individual, much as an anthropologist would in seeking to understand people from a different culture. It is interactionist because it looks at the micro-level of young people's lives, often using ethnography to draw rich seams of qualitative data in contextualized settings. Of importance in the philosophy that Hardman brought to her research was, "...a shift in perspective which not only gave to children an agency which hitherto had been lacking, it also permitted the dismantling of the monolithic category of 'the child'" (James & Prout, 1996:45).

Interactionists have given youth agency by making them the 'subject' rather than the 'object' of research. James (1993) suggests that young people understand their 'selves' partly through interacting with social construction by other people: "children might be thought of having multiple identities and subjectivities, each both *an effect and a cause* of the environments within which they engage" (James & Prout, 1996:48, my italics).

How they are socially constructed depends upon who is doing the constructing and in what context (Mayall, 1994). As James notes of her own children:

"They are learning to be 'children' through confronting and negotiating the definitions of childhood given to them by me, as their mother, by their father, their teachers, their grandparents and their friends; through the books they learnt to read, the television programmes they watched and the advertisements they knowingly enjoyed. I began to see, through this mothering experience, that although children do actively carve out their own childhoods they do so within and between relatively fluid cultural constructions of what that 'childhood' could or should entail" (1993:19).

James and Prout have redirected the sociological study of childhood by emphasizing young people as active agents in creating their own identity; as people in the present with real lives and experiences, having some degree of power rather than wholly structured from without. Thus:

"By the 1990's...the study of childhood had moved from being the study of children as passive beings structured by the social context of the family or the school to the study of children's active part in that structuring. In essence a shift away from an emphasis on structure to one on agency...to be understood through children's own experiences of it" (James & Prout, 1996:45).

However, while focusing on a micro-level, these studies over-emphasize their conceptualization of individual agency, bypassing the inclusion of a strong structural dimension in the equation. They do acknowledge the existence of the structure but under-emphasize it in order to place young people at the centre:

"Despite our recognition that children are active social beings, it remains true that their lives are almost always determined and/or constrained in large measure by adults and there are few instances of children becoming organized at 'grass roots' level to represent themselves independently" (Prout & James, 1990:30).

No matter how active young people are viewed within research settings they cannot escape from the constraints imposed on them which make certain actions more difficult than they would be for adults. Thus, while interactionist theory can help describe the different experiences of childhood, it offers little explanation for the ways in which childhood is socially structured. In this sense the interactionist approach offers no broad socially critical account of childhood which might help to liberate young people dwelling at the bottom of the social hierarchy.[4]

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[4] As Eden (1993:1754) notes, "cultural structures are boundaries within which agency can operate. However, agency also differs across groups where individuals are nearer or farther from the boundaries of culturally structured behaviours, so that the effects of the structures is relative to the individualization."

In order to maximize our understanding of young people and begin to give them more power and agency, perhaps we, as adults and researchers, should stop emphasizing the 'categorical passivity' by theorizing in terms of 'child' and 'children'.[5] After all, these are fundamentally biological terms which expose a dependency that children have to their parents. It does not express the other worlds inhabited by young people as individuals away from their dependency on and power of their parents. Instead, it constrains our understanding of the variety of a young person's experiences.[6]

SPECIAL METHODS OR SLIGHT EMPHASIS?

Much of the existing research on young people has been collected via their parents and teachers, not even "requesting the children's consent or listening to their versions" (Alderson, 1995:79). It has been assumed in the past that young people cannot give a full account of their behaviour, thoughts and feelings and whatever they could say was seen as irrelevant (Williamson & Butler, 1995). However moving on from the anthropological work of Hardman (1973) and James & Prout (1990),[7] there has been a surge of research focused upon young people's point of view rather than what adults who know them identify. This is an important step because as Caputo's research experience illustrates, adults do not always know their charges as well as they think they do:

> "I was interested in collecting songs from children that they had created for themselves and then passed from child to child. After contacting local schools, several teachers attempted to discourage me from spending the time to collect songs that they claimed 'children no longer sing'. They were convinced that children did not retain the repertoire that they were sometimes familiar with from their own childhoods. They argued that technology and the media had all but destroyed the singing tradition. After working in many schools, it was thus to the great surprise of some of these teachers that I was able to collect over two hundred songs after only six hours of contact" (1995:29-30).

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[5] As Durkheim notes "Childhood, in the strict etymological sense, is the age when the man (sic) to be cannot yet speak (from the Latin *in-fans*, not speaking)" (1982,146).

[6] In this thesis I have spoken of 'children' only when young people are being discussed in relation to their parents.

[7] While researchers such as James and Prout (1990) have done much to highlight a youth centered perspective they are by no means the originators of research directly with young people. For example Himmelweit (1958) when looking at the emergence of TV into the home researched youth directly. Similarly Willis (1977) in his seminal work effectively linked micro ethnographic research with a Marxist approach.

Academics interested in childhood battle with the 'double hermeneutic' (Giddens, 1984)[8] a conflict of perception between the interpretations made by the observer and those of the observed: in this case, what it means to be a child. This clash occurs because we were once young and so think we know the experience of youth, we look from without but also believe that we can look from within, whereas in fact childhood, and indeed ourselves, are not static: what we see looks familiar but it has changed (Jenks, 1982; Thorne, 1994). As Solberg notes:

> "Like other researchers sharing a culture, we risk being ethnocentric. Because we are positioned within that culture as occupying adult roles, notably in families, we may have difficulty in obtaining the necessary distance to reflect on adult ways of conceptualizing children and childhood" (1996:53).

Whilst this is indeed a valid notion to contend with, it is ironic that academics do not go to such lengths of consideration when researching adults. Theorizing about conducting research with young people highlights 'differences' between the socially-created categories (e.g. baby, child, teenager, adult) in a way that is often ignored for research with adults. When researching adults many of the assumptions that researchers are trying to escape from when researching youth go undetected by underestimating the differences between people who have reached adult status. Any special methods which have been suggested for conducting research with young people seem to me to be highly applicable to research with adults. Subsequently, some of the considerations discussed for interviewing young people, as will be detailed in this chapter, must be considered reflexively when researching adults. Thus youth research focuses on issues that often become eclipsed when adults research adults.

Researching young people is, in the main, just the same as researching adults (Solberg, 1996; Barbour et al, 1995) but with some slight deviations of emphasis emerging because of their low social status. This is methodologically interesting as it raises the question of how young people can be effectively researched to equalize their participation with the research process while tapping into their experiences as people who have a refracted position within society. Special methods should be avoided as young people are often very aware, and rightly suspicious of measures to 'get down to their level' during research (Barbour et al, 1995).

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[8] Holmwood & Stewart (1991:36-7) argue that Giddens (1984) is mistaken in pursuing a 'double hermeneutic' because the clash is merely one of single hermeneutics within the same "meaning system" rather than distinctive systems occupied by the observer and the observed.

POWER

Power relations become foregrounded as an issue when researching youth by the very fact that so much of their lives are subordinated through low social status and a dependency on adults (and it is adults who do the researching).[9] As I will outline, there are several ways that differential levels of power can affect the research situation.

Concerns are often raised about the type of answers received from young people, particularly in the school setting, because they may be shaped by the usual pedagogical 'right answer' requirement. Subsequently, while people may feel obliged to give the answer that they perceive the questioner wants to hear, this may be far removed from the actual answer they would naturally respond with. While the school structure may create a distortion in responses from young people, adult respondents also distort their answers to what they perceive is the 'right answer' for a variety of reasons. This suggests that any research cannot necessarily escape responses which are 'distorted' through attempts to 'impress' the interviewer.

Power is held by the researcher during the research process through their ability to control proceedings, for example, to decide when to start and finish the session. Furthermore, the imbalance of power when researching youth is aggravated by the fact that they are often much smaller, physically, than their adult researchers (Thorne, 1994; Siegal, 1991). To lessen the effect of physical height difference, Alderson (1995) suggests adopting a position at eye-level with the young people during research. However, it should not assumed that this is always the case particularly once young people have reached puberty and may in fact be taller or larger than the researcher.

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[9] In order to reduce the potential misshaping of responses caused by young people's lack of social power, researchers advocate power-enhancing methods to enable them to speak freely, unhindered by the regular distribution of power (individual, institutional) in their lives. Recent developments in researching youth have begun to train younger people to do the research. For example, in a project into the drugs information required by young people aged between 12-16, volunteer youth workers aged between 18-25 years old were trained as researchers (Fast Forward, 1994). Similarly, Barnardos trained young people aged between 15-17 years old to do research on people aged 10-12 years. They found that "the young interviewers were perceptive, sensitive and efficient. They recommended that they should have been consulted when the project and training were being planned, and that young people should provide the training for similar projects in future" (Alderson, 1995:94).

Despite concerns about interviewing young people, they are not the only group who may be inhibited by the embodiment of the researcher. There are instances of adult populations, for example, elderly people, who may feel inhibited by the size or appearance of the researcher. Indeed, all adult respondents must to some degree shape their responses from the social dynamic and what the researcher looks like. As Kitzinger (1994) notes, research is not done in a social vacuum, and subsequently all sorts of dynamics, even appearance, can shape people's responses as they do in everyday social encounters.

One of Caputo's (1995) suggestions for reducing perceived researcher power during dealings with young participants is to make them feel more equal by sitting on the ground. However this does not always work.[10] In the first focus group that I held, I positioned myself on the ground, lower than the young people who were seated. They looked on in astonishment and made me think that this manoeuvre merely added to the unfamiliarity of the research process.

Similarly James (1993) tried to neutralize her adult status and show that she wasn't a teacher by being known to her respondents by her first name. While I thought this was an excellent idea, when the class teacher asked me how I wanted to be referred to by her pupils, she warned against me using my first name as it would encourage people to be cheeky to me. This suggestion made me remember similar situations during my own school days when my class would be calling a complete stranger (trainee teacher, researcher) by their first name while our much more familiar class teacher was known by a formal title. Not only did it bring about cheek but it also felt an odd way to relate to a stranger.

So, whereas I can see the need to reduce factors which emphasize respondents' lack of power, some 'solutions' are more of a hindrance by adding to the strangeness of the process. Additionally, if some research devices are pitched wrongly they will be spotted by the respondents and this will jeopardize the researcher's rapport with them.

Caputo (1995) suggests the use of technology to empower young people in the research process, giving them the choice to decide what is recorded as data and when. With similar intent, David Gauntlett (1996) supplied groups of young people

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[10] She actually advocates to sit on the floor with the young people rather than below them. So she could be seen to be arguing that so long as all is equal then it is okay.

with video cameras and asked them to make a video about the environment. I see this as a very positive step towards not only empowering young people but also to making the research process more interesting, rewarding and creative for those involved.[11]

It should not be assumed that the researcher always has greater power than the respondents or, as Watts and Ebbutt suggest, that individuals and group dynamics do not operate freely:

> "The myth exists that the interviewer controls the proceedings - a view that under-acknowledges the power of interviewees to shape events, tailor discussion and veto information (Watts & Powney, 1985). ... Groups are less amenable to influence, particularly since the aim is to provide opportunities for a free-flowing and interactive exchange of views. As such groups have a much greater potential to usurp the moderator, so that the chemistry of the interaction feeds the shape and direction of the conversation" (1987:32).

Therefore, despite their lack of power in a wider setting, young people during research do at times seize control of the situation by a variety of means.[12] There were many times during my focus groups that incidents can be seen as examples of those in the group displaying or seizing power. For example, two boys, Frankie and Johnny, in their cartoon focus group, decided to swap identities and play one another. The rest of the group obviously knew of the switch and towards the end of the session they start getting tired of the boys' joke and begin to give hints to their real identities. By subverting the focus group, the boys managed to control some of the proceedings. In the second round of focus groups they very effectively sabotaged proceedings for a second time:

> SCG *do you think /people will experience problems in the same way / people in the developing world will /experience and cope with the /Greenhouse Effect in the same way as people in the developed world?*
>
> Belinda *could you repeat that?*
>   *Laughter*
> Johnny *it all depends on if you can swim*
>   *Laughter*
> Frankie *I can swim but (...) let's get a conversation going about swimming.*

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[11] I am sure older people would also enjoy the opportunity to do similar research as an alternative to group divisions, interviews and questionnaires.

[12] As I will suggest in the second part of this chapter, this is hopefully encouraged during the outlining of the research to participants.

Throughout the second half of the same group, Johnny started cracking the joints in his hands, arms, shoulders and knees. Little by little, joint cracking came first to punctuate, and then to dominate, proceedings. The transcript reflects this:

SCG   *ahha / and did you agree with it [the documentary]?*
Belinda   *Yes some /most of it*
Frankie   *I've never heard most of it*
Belinda   *(laughing) you fell asleep*
Frankie   *I was busy cracking ma joints*
          Laughter followed by joint cracking

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SCG   *so what can governments do to help?*
[Johnny does a loud crack of his joints and the group react]

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SCG   *what can governments do to help the Greenhouse Effect?*
[some more discussion of bone cracking]
SCG   *I can see I'm going to have to type up 'noises of cracking bones'*
          Laughter

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SCG   *What do you think you can do to help the Greenhouse Effect?*
Johnny   *click more*
          Laughter

Humour or 'imaginative' answers create laughter and may move the conversation away from the topic at hand. I myself used humour in the focus groups to keep the atmosphere light and relaxed. Others however use it to subvert the proceedings. For example, Dubberley's research of pupils at high school (aged 15-16 years old) in a working-class mining community, used humour to undermine and resist school and teacher power structures. He remarks that, "Humour highlights power in particular by its ability temporarily to distort social relations and structures and point to their absurdity" (1993:91).

In my focus groups, humour was often used when responding to questions or statements. For example, in the cartoon focus group, Suzanne causes laughter when she tells James that he looks like one of the protagonistic cartoon characters. There was also a great deal of 'humorous' storytelling, for instance, about sheep getting run over , or exposure to environmental hazards (see *Chapters 4 & 6*).

The grey area of researching young people where special methods may be necessary is for those people who cannot be effectively researched owing to different competencies of language and experience between themselves and the researcher. However, while I am advocating a careful consideration of the ages of young people being studied, I do not presume that young people above a certain age need a different research approach to that of adults, apart from an emphasis shaped by their lack of social status and rights as 'minors'.

Different language competencies are more likely to occur between researcher and youth rather than adult respondents. During research, either party may not comprehend what the other is saying, or if they do understand it on one level, may interpret it on another very different one. Thus, differences in interpretation and actual experience of certain words, images or situations, may complicate acquisition of meaningful responses and analysis deriving from them. However, this potential comprehension gap is not unique to adult-child conversation but the gap is probably wider between adults and young people with regards to the level of knowledge of the meaning of certain words and the cultures of communication that may arise in the peer groups to which the researcher enters. This is rather like an interviewer researching in a different language and failing to see the nuances of the respondents reply or failing to comprehend specific words.

Difference speech conventions between respondent and researcher may distort communication. Alderson suggests that when researching young people of they "do not seem to answer the question or seem to ramble, do not correct them, or dismiss what they say. Rambling might introduce highly relevant issues which you had not considered" (1995:31).

However what Alderson suggests is not so straightforward (and is rather patronizing). When, and to whom, is people's 'rambling' relevant? Should adult respondents be given the same sort of freedom?[13] Although Alderson is correct in

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[13] For example, in a previous research project, I interviewed business owners about their businesses. In one interview, the executive told me she was very busy; she answered questions quickly, without moving off the subject at hand, taking just 35 minutes. In the same series of interviews another executive was not busy. She responded in a very long-winded fashion, frequently leaving the topic. As I was not in any particular hurry to finish the interview I let her ramble (although to be honest, I frequently couldn't get a word in edgeways). The interview took just over two hours. Although I gained much more information from the second interview the divergences were such that none of it added to the research.

attempting to gain further insights from respondent 'ramblings', because they indeed may constitute meaningful discourse, when should one stop the respondent because s/he has left the point and in whose estimation has s/he left the point? Whose right is it to move the respondents on? Should we as researchers be concerned that highly structured research does not let the respondent 'ramble'?

To increase mutual communication and comprehension between researcher and respondent, Alderson notes the need to speak clearly, fairly slowly and not too loudly when researching young people (1995:31). However this again is something about communicating with people rather than specifically youth, and it should not be done to the point where normal speech patterns are lost. Additional problems may emerge when people are unfamiliar with the accent or dialect of the researcher (or *vice versa*). This is potentially acute in young people as they have met fewer people with different accents. However, the commonplace use of television and film, and the increase in geographical mobility, means that different accents are encountered more regularly than at any time in the past.

ACCESS AND CONSENT

Gaining access for research with youth is problematized because childhood is commonly identified as a time of innocence, when an incomplete understanding of the 'adult' world is held. Legally, young people do not hold the sole social and legal rights to decide fully their participation in research. Much of the literature on research methodology takes it for granted that participants in social research will be over eighteen years old and so have the sole right to grant permission for their participation in research[14].

Gaining permission to research children from their parents has further ethical ramifications because those young people who do not receive parental permission may want to participate in the research. Care should be taken to ensure that no penalty will be ascribed to the person who does not take part in research, especially because the person who does not join the rest of the school group may experience implicit penalties.

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[14] There are groups of adults whose rights to make decisions about their own research participation are denied or altered through their incarceration in institutions such as asylums and prisons.

When I showed my letter for the parents of Primary 7 members to the Head Teacher, she told me that parents would not respond to it, not because there was anything wrong with the letter but because they did not respond much to the school when it had sent out letters in the past. Although I accepted the Head's assurances that she would deal with this matter, I felt that I had lost control over part of my research. Thus, I had to accept her assurances that I could refer to her in situations of parental confrontation or disagreement about my research. Ultimately, I do not know if letters, or any communication about my research, were received by parents.

Thus it is important, indeed some would say central to good research practice, to obtain consent from an individual who knows exactly what they are consenting to (Burgess, 1989; Keith-Spiegel, 1983). This is particularly relevant to young people when research takes place in schools because it is often assumed that their presence in school allows all decisions about the content of their day to be made by teachers.

While young people can make up their own minds about whether they want to participate in research, the possible ramifications of such participation may not be apparent to them, as is also true of adults. For example, they may not realize that their responses could be published verbatim, or the research conclusions may lead to the changing of policy (for example see McKee & Bell, 1986), in some way or another, which could ultimately lead to a negative effect for them. Such issues need to be carefully dealt with so that when people give their consent to participate in research, they do so with a clear idea of what exactly they are consenting to. However, it is difficult to know what the outcome of research will be before it is collected, which makes it difficult to explain fully what the ramifications are.

Much of gaining informed consent from young people is also a matter of familiarizing them with the research process. For example, Alderson suggests empowering youth with the response 'No' (and practicing using it before the research starts) when questions arise which they would rather not answer (Alderson, 1995). However, this point also applies to research with adults who are themselves not used to taking part in research and might feel obliged to answer all the questions put to them, rather than realizing that they can simply opt to remain silent whenever they choose.

I was careful to spend time at the start of each research session explaining to the respondents that they did not have to take part, answer, or be filmed, if they did

not want to. On some occasions people tested me on this which I was pleased about. This was aided by the fact that the class was only once involved in a whole group research session, making it easier to opt out without feeling marginalized from the whole group.

ETHICS

Ethical considerations faced when designing, conducting and publishing research operate to set standards of behaviour and general parameters of what is deemed 'right' and 'wrong' in research. Ultimately, ethical decisions relate to questions of power and control within and beyond the research process (Alderson, 1995). Ethical concerns for young people partly exist to protect them from possible harms which may occur as a result of taking part in the research. This is particularly the case when research topics have the capacity to be traumatic such as recounting violent physical or psychological abuse. While people of all ages may find such research participation traumatic, adults are deemed to have more 'maturity' from which to draw upon and more power to decide when they do not want to take part in the research.

Alderson (1995) notes ten ethical areas for consideration when studying youth which might arise throughout and beyond the research process. These include questions about: whether it is ethically right to do the research in the first place; whether costs and benefits will be incurred by the participants; whether confidentiality will be maintained; whether financial considerations will affect the research; whether participants and their families will receive information about the research, and to what degree; whether consent to participate in the research will be obtained, and from whom; whether publications from the research will be made; and whether conceptions of young people and personhood will be affected by the research. [15]

It is important to establish trust with the respondents, so that they feel sure that if they give you honest reactions or answers they will not suffer. This type of trust is particularly important to gain when research is being conducted in schools because

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[15] Despite the significance of Alderson's suggestions, doing them justice in the field is quite difficult. In my research while I did explain my research and what I was going to do, during the course of my research, I often got questions from the respondents about what I was doing and what was it for, which made me question whether I had effectively outlined my research.

the researcher must establish that they are not a teacher; that all responses will be treated confidentially; that there is not a right and wrong response to the questions; and that they are not being assessed or tested.

In most research, it is important to maintain the confidentiality of respondents' identities and their discussion. This is to maintain respect for people's privacy (Homan, 1991) and to protect them from being damaged in any way by their disclosures during research. While my research topic cannot be said to be particularly controversial, I still thought it important to maintain confidentiality, given that being careful was better than finding out later the effects of public exposure of the research. Furthermore, I felt that I did not have the right to ask for non-confidentiality and actually did not see the point, nor desire to have it otherwise.

I was intrigued to see that Gauntlett (1996) did not see this as an issue, naming all the schools and people involved in his research, adding photographs of some of them in the book. While I cannot imagine any harm will come by this, I feel that overall, this is the wrong way to proceed. While I am in no doubt that Gauntlett asked his respondents' permission for open inclusion, I would have erred on the side of caution and not consider this an option. This is particularly so given the potential conflict if, for example, the school and some of the pupils agreed to open naming, while some pupils did not. A compromise that I would consider next time would be to get the respondents to choose a name they would like to have as a pseudonym in the published material from the research.

In my own research, I felt that I weakened the rapport and the trust that the respondents had with me because I was unsure of some individual's names. It also brought potentially troublesome times for analysis of the data. For instance, during one session of individual interviews the three boys I was going to interview decided unbeknown to me that they would go in a different order because one of them was in the middle of project work. While this is admirable because it shows a certain comfort with proceedings, it became troublesome for me when the person I thought I was interviewing asked me who I wanted to come next and I responded with his name! Similarly, the two boys in the focus group who swapped identities were playing with my lack of knowledge of them. This could have been averted by spending more time setting up the research and connecting with the respondents.

The research ethos that I developed was strictly non-authoritarian and aimed to maximize the respondent's feeling of comfort during the session. Such an approach may have reduced the amount that was spoken because, for example, I would move onto another question if no response was given, often after rewording the question if it failed the first time. To this end, I tried to maintain a fine balance between giving them the chance to respond fully to both my questions and to the other group member responses of other group members, while not leaving uncomfortable pauses.

Mauthner (1997) suggests that the young people in the research that she was involved in would become irritated when group members dominated the conversation. In my research I found more regular expressions of the opposite: when people were not taking part and one or two were answering most of the questions, those speaking would try to get the others to respond or be critical of those silent. However, as my ethos was non-demanding, I kept on maintaining the empowering ethics of the research by saying - "nobody has to say anything if they don't want to." Some group members seemed to feel embarrassed, or even proud, when the group were being unresponsive and say things like "do you have this problem with the other groups?"

Thus despite attempts to establish a clear policy that young people do not have to take part and will not be penalized if they choose to opt out, it is difficult to control the expectations that others in group research have of their fellow members. Although I always supported people who preferred to remain silent, the pressure placed on them to speak by other members of the group was difficult to deal with in a satisfactory manner. This is particularly so because the group already knew each other well, and so the research tapped into an existing dynamic which allowed people to be themselves and for more 'natural' responses and relations between people to emerge.

In my research, not being authoritarian allowed people to get away unchecked, when replying to myself and others in the group in cheeky or sarcastic ways. Certain groups thrived on this, especially by the time of the second focus groups when they were more relaxed having seen me in a research scenario at least three times. This allowed certain individuals in the group to take over and sometimes divert the session away from what I had intended (often taking the others with them). The good side of this is that the respondents could feel comfortable with the research proceedings, and this maximized their own power over the situation.

I rarely intervened in a powerful way to stop things from happening. Once I supported a girl, Marie, who was challenged by others in the group because she was "always asking stupid questions." I explained why the question she had asked was pertinent despite the fact that by doing this I risked placing myself in a pedagogical role and taking her side might have alienated me from others in the group. However, as Marie had already spent much time asking me direct questions, I had already, to a certain extent, been pulled into that role. Before this challenge, I had tried to reorient the session away from her questions to focus on all the group members thoughts and feelings of the documentary. Despite this, when the challenge to Marie was made, I felt obliged to support her, even though, to some extent, they were expressing what I had already been feeling, and trying to avoid.

When people decided to give me responses such as "the aliens will come and save us" I did not ignore their response or berate them. On one occasion, the teacher told me that I should have sent a particularly 'silly' group back to class but this would have failed my 'active respondents' belief and would have brought adult power structures and meanings to bear on the respondents.

Mauthner reports that a researcher in one of the pieces of research she was involved in:

> "Though she did not attempt to discipline them when they were uncooperative she did lose her patience when they were 'being silly': hiding under the furniture, talking loudly and all at once during the recording" (1997:22).

This seems to be against the ethos which researchers should be striving to encourage. Talking all at once is commonplace in group work and can be reduced by explaining why it is best to listen to what others say before speaking. It may indicate that the group would have benefited from being smaller, but ultimately, should not have led to a loss of patience on the part of the researcher.

There were times when, in trying to show myself to be non-pedagogical and non-oppressive, I left myself open to looking unsure about what I was doing. In one instance, I decided to try to deepen the level of discussion in the individual interviews with Belinda, whom I knew was comfortable about doing the research and knew a fair bit about environmental issues. However, in doing this I went too far and received no response from her. In an attempt to support her silence by

showing that it was OK not to answer, I said "Oh that's another tough one. I seem to be thinking of tough questions for you that I haven't thought of for other people." This openness and flexibility later backfired on me. Firstly, Belinda decided that she didn't want to take part in the second series of focus groups. I was pleased in one sense because it meant that she was making use of her rights. However I was also worried that this might have stemmed from the 'tough questions' issue in the individual interview. When the very last session of the second focus group took place, I noticed that, as well as there being one person absent, that Belinda's friend Ruth was in the group. So I asked Belinda if she now wanted to take part, which she did. However, the issue of my capability was still apparent when towards the end of the focus group, Belinda asked:

Belinda	*Are these questions that you just made up or have you wrote them?*
SCG	*well I kind of wrote them*
Belinda	*hmm*
SCG	*they're written down and made up.*

In opting to be a non-authoritarian figure in the research room, I also opted to have people silent throughout the whole research if they chose to be. Some people therefore said very little in some of the groups whilst others dominated. It was interesting to find that some people gave fuller accounts of the cartoon during the individual interviews, leading me to assume that not everyone spoke of all they could have during the cartoon focus group. Watts & Ebbutt noted that in their research:

> "In some instances, one dominant person in the group can be an asset in that he or she can forward opinions and begin to shape and sharpen ideas so that the discussion begins to take off. On the other hand a dominating and opinionated person can inhibit others in the group, either by simple volubility or by force of argument" (1987:28-29).

Watts and Ebbutt (1987) in an attempt to provide more comfortable proceedings and fuller responses, suggest the possibility of providing a list of questions prior to the research and then giving respondents full control over what they record as data. While this is a good idea, surely the spontaneity of the response would be flattened, especially if the questions are discussed amongst group members, and more room would be potentially given to sculpting an answer. Also, depending upon the topic this would be very difficult. As my focus group research centered on the reception of media texts, then taking on board Watts and Ebbutt's suggestion would

necessitate providing them with the flexibility and opportunity to watch the video, when and with whom they wanted to.

I have spoken in detail about how researching young people is just the same as researching adults. However, in my research I have not had to contend with researching very young people with whom I would share a wide gap in our different competencies, for example, verbally. Obviously, depending upon the topic of research and the age of the young people there is a sliding scale of how much the researcher and the participants can successfully communicate with one another. In these situations, researchers must assess if there are special considerations needed when planning the research.

As the next section will outline, some of the focus groups went smoothly and operated with equal participation. In these groups, members felt comfortable enough to laugh at themselves whilst being able to have serious conversations with one another. Other groups were asymmetrical in response and instead of having discussion amongst themselves just briefly answered to me and did not pick up points that others had made, which other groups did.

THE RESEARCH

RESEARCH RATIONALE

The overall research design inclined itself to a qualitative multi-method focus because of the participants (a group of young people), the research location (school), the area of focus (relating to viewing responses and attitudes), time constraints (the school structure), the methods of analysis (categories developing from the data). The basic design involved gathering baseline data (using a questionnaire) from a whole school year group followed by more targeted focus groups and interviews which integrated more specific and in depth forms of data. The focus groups were specifically an occasion to observe and investigate young people's consumption of environmental messages from videos. Two videos were used in the research: a cartoon and a documentary. They were shown to the same groups of people (six groups of 4-5 people) on both occasions (see Appendix 1).

The questionnaire was chosen as an initial method of data collection as it enabled a baseline of data from which to build, particularly as it included individual

information on the respondents. I very quickly collected information about their environmental concerns, level of concern, their home and social environmental behaviour and so on. These data were then used to select the focus groups placing together respondents with a similar level of environmental interest. The questionnaire data also enabled the construction of interview questions based upon information given by the respondents. The questionnaire also provided the opportunity, in conjunction with the questionnaire to parents, to compare parents and their children on environmental issues and behaviour. On reflection using a questionnaire provided the young people with a chance to become acquainted with the research process and an opportunity to get used to my questioning before they undertook the more direct methods of focus groups and individual interviews.

The method of using groups of respondents to access responses to media texts has been very successful (Morley, 1980, 1986; Corner, Richardson & Fenton, 1990a; Buckingham, 1993a) because "the consumption of meanings in media texts is an active, social process" (Burgess, Harrison & Maiteny, 1991:502). Thus, the focus groups were chosen as a method because they provided a clear way to locate a group response towards environmental media texts, particularly as the group were already familiar with one another through school. Alternatively, respondents could have viewed the media individually, but this would have been very time consuming and would have prevented the emergence of responses reflecting group culture.

The individual interviews enabled an in-depth follow up to the focus groups and worked to supplement information obtained through the focus groups and questionnaires. They provided the opportunity to see if the respondents had knowledge of recent issues in the news. This was particularly important as it enabled a monitoring of responses away from the group to locate personal accounts of recent environmental issues. Also, it afforded the opportunity to check whether people had a memory of the cartoon. Furthermore, they offered the opportunity for a 'cosier' one-to-one dynamic which enabled data collection from those less inclined to speak in a group. I randomly selected a boy and a girl from each group and spoke with them, individually, for about half an hour. I spoke to 3 people every visit, seeing one after another. In total, I individually interviewed 12 people.

The use of multiple methods means that rather than collecting a flat image, a more layered and multi-dimensional view develops. Instead of seeing people once to gather all that they know and feel in one session, using multiple methods means that

not only does a research relationship build, but that if certain attitudes and feelings do not emerge through one method, they have the opportunity to be brought out in later sessions of the research. As Gauntlett found in his research:

> "Children who had seemed indifferent to the environment in conversation were found to have quite strong views on some issues (particularly where related to the quality of their own lives), whilst others who had emerged from the focus group as keen environmentalists were found to be rather less committed where significant amounts of actual effort would be required" (1997:18).

Delving below initial data collection to locate fuller responses is partly enabled by participants becoming familiar with the researcher and the research process. Multiple research strategies afford the opportunity for the respondent (and the researcher) to become more confident and relaxed, and the researcher to gather expressions of any previously unspoken views. In addition to this, social dynamics affect the research process and mean that different sorts of data may emerge from various combinations of respondents, as May notes:

> "[it is] possible to gain different results from using one group and individual interviews. Group and individual interviews may produce different perspectives on the same issues. ... interaction within groups ... affects us all in terms of our actions and opinions" (1993:95).

In my research, some people were more comfortable when interviewed alone whereas others were more vocal in the group format and became quite shy in the individual interviews. Similarly, the first focus group were quiet when interviewed, possibly because not enough rapport had been established between the group and myself, and possibly because they were the first group selected and so lacked feedback from other class members as to what exactly happened in the research.[16]

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[16] This is a shame because this group was formed on the basis of individuals being 'very interested' in the environment as selected from data collected from the questionnaire. Thus I do not have a very 'rich' transcript for the group who said they were most interested in the environment. Actually (and somewhat ironically), I don't have one at all because this was subject to (researchers) 'mechanical failure'. Despite being quiet during the focus group, two individuals took me aside on the way back to the classroom to talk about their interest and connection to environmental issues. The next time I researched this group they were much more relaxed and talkative, even getting very giggly at some points.

SELECTING AGE TO BE STUDIED

I initially planned to compare young people in distinct age groups. For example, I was going to examine how four, seven, and twelve year old young people's perceptions of environmental media, compare and contrast. I decided studying this range of ages was unfeasible in the time available. The differences between each age group would have necessitated the creation of alternative research strategies and made comparison, especially on such a small scale of research, difficult. Instead, one age group studied in great depth seemed a stronger way to explore a set of young people's views on the environment and environmental media without any constraints of comparing age differences. I opted for the final year of primary school because I felt that this was a particularly important transition point in their lives and so enabled the establishment of all the environmental education provided by the school.[17]

SCHOOL LOCATION

Although in planning the research I considered a variety of locations such as family setting, youth groups and various festivals held throughout the year, I felt that the school was ultimately the best place.[18] Here I could gain access to a set of young people on a very regular basis who were delineated by age, and where their parents felt them to be relatively safe. As the school also had a need to set aside a specific period for teaching about science and the environment, my research topic seemed to add to rather than detract from school activities.

Although the school setting might constrict answers and behaviours during research, the benefits are that it is a place in which it is easy to assemble a group of people who know one another and who share a culture by virtue of their experience in school together. Also, researching in the school means that the settling is more familiar, and therefore less daunting, to those being researched.

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[17] Ironically, I found that the school had taught very little on the formal curriculum and so this became a very small focus in the overall research.

[18] The school I actually conducted my research in gathers pupils from mixed socio-economic backgrounds, although there are slightly more from working class backgrounds. The school is amenable to research and luckily has the space available for research to be carried out that many other schools do not.

TIME

I was aware that all the time the young people spent with me was time out of the classroom. The teacher said she actually welcomed having a few less bodies in the room, especially certain bodies! Additionally, I was aware that at some points in the term some individuals were glad to be away from the classroom and occasionally seemed to be making proceedings drag on longer than necessary.[19] In another direction, I was also aware that some people did not always desperately want to leave the classroom especially when the classroom activity was enticing such as painting, particularly once my novelty had begun to wane.

It was important to keep the research session within a certain time so that people would not become bored or lack concentration. When some people began to fidget this signaled to me that they might not be fully enjoying or focusing on the group. I kept my eye on the clock, asking another question if I felt that the discussion had been off the point for too long. I tried to keep the discussion sessions relatively short (30-40 minutes) given that each video was about 30 minutes long.

APPREHENSIONS AND THE PILOT STUDY

I was actually very scared about the fieldwork section of my PhD to the extent that I left the job of making field connections until the last possible moment. The whole of my first year while I was planning my research, at the back of my mind was the thought that I would have to go out and speak to young people! This feeling of fear seems quite ridiculous to me now but at the time it was very real, partly created by my having had no experiences of people significantly younger than myself.

My first foray into the field was for a pilot study. Even that was shaped partly by apprehension because I was running out of time and so only had time to conduct one test before starting the research proper. Immediately afterwards, I felt that the pilot had gone terribly badly, but weeks (and a few whiskies) later, when I was reading the transcript I decided that it had actually been a real success.

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[19] This happened especially at the end of the session. I would show them a part of the videotape I had just made of them speaking. This was, to some who were concerned about their impending return to the classroom, an opportunity to drag out the proceedings. These people would ask me to find certain bits in the tape or ask if they could watch the whole of it.

The pilot study gave me the experience of using the equipment, and pre-armed me with knowledge of the pressure experienced when getting it all running, in the right room, at the right moment, even before the research session itself had started. It made me consider how I would inform respondents about the research in order that they knew what was going to happen and knew that they could leave when they wanted to. Overall, then, it gave me some idea of what awaited me in the field.

IN THE FIELD
QUESTIONNAIRE

The questionnaire was the first data collection method used in this research. I tried to make the questionnaire look relatively accessible, visually stimulating and as clearly expressed as possible (see copy in Appendix 2). The questionnaire contained questions which were open ended, asking respondents to write-in their responses freely, along with questions which asked them to rate their own thoughts in terms of a Likert Scale.[20]

It was completed, simultaneously, by the whole of Primary 7 in their classroom. Before the questionnaire was completed I emphasized that if they did not want to answer any of the questions, they did not have to, and that I was not looking for 'right' or 'wrong' answers. Both the teacher and I walked round the room to answer any questions that the young people had. I tried to ensure that those who finished the questions before others did not disturb those still completing theirs. Everyone seemed quite content when they were completing the questionnaire and there did not seem to be too many problems. Although I had been concerned that they might find the questionnaire too long, I was reassured later in the research when someone referred to it as a 'quiz'.[21]

The questionnaire consisted of 23 questions contained in 7 pages of A4-sized paper. The first question after writing their names (Qu. 1) asked them to write down some of the things that they liked to do when they were not at school (Qu. 2). This aimed to orient them to answering the questionnaire. The first page also asked

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[20] It must be noted that the Likert Scale does not necessarily allow clear intra-class comparisons as it is subjective and eclipses potential gaps between people who, on paper, may rate themselves in the same category but feel very different (Zimbardo & Ebbesen, 1969).

[21] Although this might imply 'right' or 'wrong' answers.

the respondents to write down up to three environmental problems that they knew about (Qu. 3). This question was positioned prior to the questions that asked them to rate a series of local and global environmental problems for their severity (Qu. 7 & 9) so that they would write down issues which they had genuinely heard of rather than being directed by a list of issues. The next questions established how concerned they were about environmental issues (Qu. 4) and their sources of environmental information (Qu. 5).

Questions 7 & 9 asked the respondents to gauge a series of local and global issues for their severity. The lists of issues was developed from the MORI survey (reported by Church & Summerfield in 1994 and by MacDonald in 1994). In the list, a series of bogus items were included to check that responses reflected young people's actual opinions and knowledge; that they were considering issues rather than ticking any box just to complete the questionnaire. These 'bogus items' included: 'too many plants'; not enough roads'; too many animals'; and, slightly more debatable, 'not enough plants'. The respondents lowly rated these items in comparison to the 'real' issues. They were predominantly placed in the 'not a problem', 'not a serious problem' and the 'don't know' category. Sometimes they were left blank. The idea for the placing of bogus items emerged from the work of the Fast Forward (1994) drugs research in which a questionnaire given to young people asked them to select from a list the drugs that they took. Even though some of the itemized drugs were bogus, they were purportedly taken by some of the respondents questioned.

There was also a space left to note any additional environmental issues which I had omitted. Question 8 and Question 10 enabled the respondents to say why they thought that the issue they considered most severe occurred, and how it could be solved. This worked to some degree although some people wrote more generally about all environmental issues.

Questions 11 asked for a single response to who should help environmental problems. A selection of possible answers were given along with space if the respondent had a different response. This question sought to determine whether the respondents felt that environmental issues called for individual or institutional responses. However, despite being asked to make just one selection, many people ticked more than one box.

Questions 12 to 15 asked questions relating to environmental activity at home (Qu. 12), and when shopping (Qu. 14 & 15). It sought to identify who, if anyone, was environmentally active in the home (Qu. 13). Through these questions I expected to ascertain an initial appreciation of the level of environmentalism encountered or undertaken by the young people in their homes.

Questions 16 to 19 sought to identify people who were active with their friends (Qu. 18 & 19) or who had friends who were concerned about the environment (Qu. 16 & 17). These questions worked to establish whether young people potentially gained inspiration for pro-environmental activity from their friends. Similarly Questions 20 to 22 asked for details of environmental information gained during time spent away from the family in youth groups. Question 23 sought to establish whether the respondents thought that environmental problems in the future would improve or worsen. This question emerges from the work of Hicks & Holden (1995) who asked young people aged between 7-18 years of age to write about their thoughts of the future. This question was asked throughout all the research stages to monitor the consistency of responses.

Finally, an additional space was left at the end of the questionnaire for people to write down anything that they thought had been omitted or that they wanted to tell me about.

There were problems with some parts of the questionnaire. Some of the questions that did not work very well were ignored at the analysis stage of the research. Question 6 is adapted from part of Tolley Jr's (1973) questionnaire research with 8-14 year old people about the Vietnam War in which he asks for the young people's emotional responses to war. In Question 6, I asked for their emotional reaction to environmental issues. Responses to this question were inconsistent with stated levels of environmental concern and I decided that I was not convinced that the question had been interpreted by enough of the group in the same way for comparison, and that analysis of it would not add to the thesis.

Another problem was that not all the questions could be easily split into local or global issues and there was some evidence of people identifying issues as local rather than global and vice versa. For instance, BSE was placed in the global category whereas on reflection it was better suited to the local issue even if it was a national issue at the time.

The range of choices of severity was far too broad moving from 'very serious' to 'quite serious', to "slightly serious', to 'a minor problem' to 'not a problem' and 'don't know'. At the analysis stage I collapsed the columns 'quite' and 'slightly' into one and also 'a minor problem' and 'not a problem' into one. This error was particularly noticeable given the small number of respondents.

Furthermore, when people had to indicate what they considered the most serious local or global issue (Qu. 8 & 10) they sometimes chose an issue which they had marked as 'slightly serious' when in fact they had marked others as more serious. The explanation for why this problem was considered most serious also suffered from miscompletion. When asked to identify in writing why they thought the environmental issue which they thought was the most serious, occurred, and how it could be prevented, some of the responses related to general environmental issues, whilst others related to problems other than those highlighted as the issue 'most concerning' the respondent.

Given that the audience were captive in the classroom, I easily managed to get a 100 per cent response rate to the questionnaire. Despite expressing the ability to be free to make up their own minds whether or not to do the research, the fact that the questionnaire was being conducted in their classroom, with the teacher present, and in class time, meant that there was an implicit pressure on them not to refuse, regardless of my assurances. Additionally, given that the research espouses confidentiality at all times it was an oversight to have the teacher there giving help because this jeopardized this promise.

FOCUS GROUPS

The focus groups tapped into a shared culture of the respondents who had, for the most part, been together since they were 4 or 5 years old, were of the same age, had lived through the same events, lived in the same area, many in the same community, and knew each other relatively well. I was also following the reception analysis work of media academics who had focused on media audiences by asking groups of people what they thought of certain programmes (for example, Morley, 1980). By talking in a group, audience reaction to media becomes bounded within the cultural systems which draw meanings from the individual to a shared, negotiated perception.

The benefits of the group knowing each other well go some way to dispelling concerns about the effect of researching within a power-laden institutionalized context as peer group culture can operate to bolster the power differentials between themselves and the researcher. As May suggests "group interviews can provide a valuable insight into both social relations in general and the examination of processes and social dynamics in particular" (1993:95).

Furthermore, Kitzinger suggests that group work provides the opportunity for a broader range of responses than might appear from individual interviews partly because of its natural social dynamic, "group work is characterized by teasing, joking and the kind of acting out that goes on among peers" (1994:108) and that:

> "Tapping into such a variety of communication is important because people's knowledge and attitudes are not entirely encapsulated in reasoned responses to direct questions. Everyday forms of communication such as anecdotes, jokes or loose word association may tell us *as much*, if not *more*, about what people 'know'. In this sense focus groups 'reach the parts that other methods cannot reach' - revealing dimensions of understanding that often remain untapped by the more conventional one-to-one interview or questionnaire" (Kitzinger, 1994:109).

Hillcoat et al (1995) note the usefulness of focus groups to identify and comprehend people's feelings towards the environment. In my research, focus groups helped to unearth a whole range of environmental actions and sentiments, because alongside discussion about the media there was a more general discussion centered on people's environmental concerns and actions.

I tried not to control group discussions, but the questions I asked structured the conversation, albeit asked in an order that naturally linked to the topic of conversation or used to move on the conversation when silences arose. I aimed for a balance between not asking too many questions and letting them speak within what they saw as their own terms of the debate, while keeping the group focused and discussant on the topic. As Watts & Ebbutt reflect:

> "The interviewer wants to allow free discussion and yet at the same time keep the thread moving in a particular direction so that the needs of the research design are met" (1987:28-29).

The focus groups in the main research were of either four or five people in size and had either two boys and two girls in them or three girls and two boys.[22] The focus groups were roughly an hour and fifteen minutes in length. This time was made up of 30-35 minutes for the video and the rest spent talking.

The size of the group had initially been determined following Morgan's (1988) advice of 6-8 people, but when I conducted the 8-person pilot study, it became apparent that this was too ambitious and exhausting a number. Fewer numbers in the group meant that there were not too many people trying to speak at once and that everyone got a chance to contribute.

The groups were selected using respondents' individual questionnaire responses to the question which asked them to rate their level of environmental concern. However, this was also shaped by trying to get an even gender balance throughout all of the groups. Those who were unsure of their level of environmental concern were distributed throughout the groups.

There were some unforeseen problems stemming from the composition of the groups (see Appendix 1 for an overview of the groups). Firstly, I selected group members without knowledge of what sorts of dynamics might arise from the pre-existing shared group culture. Some of the groups worked very well together in the sense that all the people in the group were happy talking. Other groups did not seem to connect with one another in the same way. For example, in the first session, Kelly said very little; when in the second session of the focus groups she had moved to a different group, she spoke throughout. I think the first time round she was greatly intimidated by the people in the group whom she may have not liked or felt comfortable with. This would make me consider selecting groups on the basis of friendship, in future research. However, there are problems associated with asking people to name their friends because this could create disputes of friendship: one person might choose someone who has not included them. An alternative might be to ask the teacher whom she considers are best friends but this would not necessarily be up-to-date with the comings and goings of youth friendship groups (James, 1993).

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[22] The exception to this I one group where I selected a name thinking it was a boy when in fact it was a girl. So this group had four girls and one boy.

Although group culture might, as potentially seen in Kelly's case, inhibit free discussion of some of the interviewees, this is not always the case as Kitzinger notes:

> "...it should not be assumed that groups by definition are inhibiting relative to the supposed 'privacy' of the interview situation. In fact, depending on their composition groups can sometimes actively facilitate the discussion of otherwise 'taboo' topics because the less inhibited members of the group 'break the ice' for shyer participants or one person's revelation of 'discrediting' information encourages others to disclose" (1994:111).

Furthermore, any researcher using focus groups should not be aiming to get to the heart of an individual's responses:

> "It should not be assumed that the individuals in a focus group are expressing their own definitive individual view. They are speaking in a specific context, within a specific culture, and so sometimes it may be difficult for the researcher to clearly identify an individual message" (Gibbs, 1997:3).

Some of the groups were very talkative and others were dominated by one speaker. One of the criticisms that Kitzinger (1994) raises about much of the existing research using focus groups is that they do not appear to be interactive but end up as Watts & Ebbutt note, as 'multiple single interviews' (1987:32). While interaction is a great asset of focus groups there is no way, given the ethos of unenforced participation, that you can make people speak, let alone interact. Indeed, much of this will depend on group dynamics which are themselves difficult to predict. To counteract this, combining several methods of data collection has, in my research, ensured that even if some people are not very vocal in the focus groups, I do still have some data on them.

I recorded the focus groups using a video camera, as I decided that in order to be able to disentangle the different voices from a recording, I would need to see their faces speaking, rather than trying to tune into them from an audio recording.

The video equipment had its good and bad points. Young people are often identified as being more technologically literate than older people: many young people can often work the video recorder when older people in the same household cannot. Sometimes if I was having difficulties with the equipment group members would make suggestions as to what might be the problem. The young people were

fascinated with the equipment and it became common for them to ask to look through the eye piece of the camera, or watch the video of the group at the end of the session. I felt that this was of particular benefit in building rapport with the group and letting them see what I was collecting from them.

Initially, I did not handle the recording machinery very effectively. On one occasion I failed to switch the video camera on correctly and so recorded nothing. The next time I failed to switch the microphone on. While these tales are probably familiar to most researchers, I felt that it was particularly wasteful of the respondents' time and mine, especially as I would never be able to repeat the session. It is very frustrating, given the small sample size, that I have no data from two out of the twelve focus group sessions. After the failed recording of the second group, I did manage to write up notes immediately afterwards but they are still not anywhere near as complete as a transcript.

MEDIA VIEWING AND THE FOCUS GROUPS

The aim of showing media texts to the young people was to locate their thoughts and feelings, not only about the piece of media they had just viewed, but hopefully linking into other aspects of their connections to environmental issues, and other environmentally-themed media.

Discussion of the media in the focus groups combined with questions during the individual interviews that looked for the respondents reaction to recent news stories. This was important to gauge what the young people were receiving from exposure to environmental events on a daily basis. Additionally, as I was slightly concerned about the artificiality of the media viewing in the focus groups, talking in the individual interviews about recent material, which had been viewed in a natural setting, dispelled this concern and enabled a stronger sense of their natural reactions to environmental issues in the media.

I also took the opportunity in the individual interviews to ask about their memories of the cartoon they had viewed in the first focus group. This was done to enable people who had not spoken, or spoken as much as they would like, to respond, and offered the chance to see how much of what had been previously viewed was remembered. In doing this I found that some people summed up the environmental

issues of the cartoon very clearly while others had a limited recollection; some even had no idea whatsoever.[23]

Media texts do not contain one meaning which will automatically upon viewing find its way into the minds of the audience. They are in fact polysemic in the degree to which they can be received. Whilst the general framing of the programme may compel certain readings more than others and may aid the closure of the readings possible from it by the way it is framed, the audience are still open to taking from it what they will. In a study on adult perceptions of a documentary about the environment, Burgess et al concluded that:

> "People weighed the evidence presented in the documentary through their frameworks of local knowledge and experience, and it was on the basis of their concrete, practical knowledge of the locality that more abstract arguments were evaluated" (1991:508).

The cartoon was chosen from a group of environmental cartoons I had previously examined for my Masters dissertation in 1992-3. These cartoons were assessed for length, environmental themes, setting of story and so on. A episode from the series Captain Planet and the Planeteers[24] was chosen partly because it is the most prolific and enduring of the recent environmental cartoon genre.

The specific episode "Off Road Hoggs" was also chosen because its main theme of off-road vehicles damaging the desert, was unfamiliar in the lives of the young people and had received little media coverage. The cartoon also contained more general issues such as car pollution. This is an issue which has had more publicity and is recognized widely as being damaging to the environment. Pollution was a more salient theme to the groups than damage to the desert top soil. Although the desert was the key theme in the cartoon, discussion of pollution dominated the focus groups, possibly because the information on the desert was unfamiliar to them and pollution made more dramatic visual sequences in the cartoon.

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[23] This might have reflected the research context, particularly as the question was more a test of memory which might have inhibited some people.

[24] For more information about this series see the Captain Planet pages on the Internet: http://www.turner.com/planet/context/index.html

Not everyone was interested in the cartoon and so may not have been constantly focused when the video was playing.[25] As a result of this, it may have failed to inspire reading the environmental themes and thus hindered making connections with their own environmental habits and interests.

There was resistance to the cartoon from many of the group members as they thought it too young for them. For example, in my pilot study, group excitement about what they were going watch was somewhat quashed when they found out that it was an episode of Captain Planet and the Planeteers. To reduce this resistance in the main body of the research, I asked the young people how they thought those in Primary 1 or 2 would regard the cartoon. Asking the respondents their thoughts on what younger people would make of it removed an initial blanket of resistance and empowered them with a sense of responsibility. This allowed me eventually, to ask what they thought of it. The displacement of reception onto younger viewers also worked well because many of the respondents had watched the cartoon when they were younger. Some had younger siblings who currently or previously had watched it. Therefore some relatively recent memories of viewing the cartoon shaped some of their responses.

This complements work by Buckingham (1993a) and others who have shown examples of young people speaking with a sense of authority and responsibility over younger viewers, for example, in discussions of the effects of violent TV which they identify as safe for them but a danger to younger viewers.

In the cartoon focus group, I asked questions relating to whether they enjoyed the cartoon, if they watched it at home, what they thought of the characters, what it was about, what sorts of environmental themes it contained, and whether they thought it was educationally useful. To gauge their impressions of some of environmental issues covered in the cartoon I asked a question relating to the story-line such as "Do you remember at the end of the programme there was a flash flood, what do you think caused it?" Similarly, early on in the cartoon there was a scene when one of the Planeteers, Kwame, ran in front of off-road vehicle to prevent a tortoise from getting killed. The desert guide, Josh, with whom he was with ran down to pull Kwame out of the way of the approaching vehicle, and the tortoise was shown to have survived by burrowing down into the sand. I wanted to know

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[25] Although this reflects how 'normal' viewing at home is often conducted (Collett & Lamb, 1986).

whether they thought he should have run down the hill. I wanted to understand what the respondents thought about the dilemma between saving the animal and putting oneself in danger.

As cartoons are often criticized as the worst sort of media for the young, it seemed a valuable inclusion to compare a cartoon with a documentary text more formally acknowledged as having educational value.

The documentary was a little harder to select. Unlike the cartoons I do not own a video stock of previously broadcast environmental documentaries. Selections were therefore made from text descriptions in a variety of video catalogues using the same sorts of issues that drove the selection of the cartoon. These included: to locate a text which was not longer than thirty minutes; to find an environmental theme distinct from the issues dealt with in the cartoon; to locate a theme that the young people would be familiar with (in comparison to the desert theme in the cartoon); and preferably an environmental issue that the young people would have heard of but which they would not have direct experience of. These aims were satisfied by the video of Greenhouse Effect: 'Can Polar Bears tread Water? - The Greenhouse Effect.'

The documentary was made for the 11-14 age group. It was made for schools by the World Wildlife Fund for Nature (WWF) in conjunction with the Television Trust for the Environment (TVE). As it had to be selected from a catalogue I could not view the documentaries beforehand in order to make a selection. Instead, I had to read carefully the descriptions of all the available videos. The documentary was devised to be shown in the classroom, a section at a time, in conjunction with teaching materials about that segment of the video. Thus, whilst it is not a documentary broadcast on evening TV, like a series such as Nature Special or Horizon, it was viewed in one showing in the focus groups in much the same way. From this, the responses in the focus groups, rather than being a comprehension of what had been seen in each section, were hopefully a more personal selection of interest, importance and comprehension; albeit channeled by some of my questions.

The questions that I asked following the documentary were similar to those asked for the cartoon, and linked to the programme they had just seen. I asked what they thought of the documentary in general, what the environmental problem was, what causes it, what can be done, who should help, whether they thought that it would

affect them, whether they had heard about it before; whether they thought that the film was biased, and if they considered it educationally effective. Following the work of Uzzell (1996) who found that young people displace environmental issues onto places beyond their country of domicile, I also asked whether they thought that environmental issues were worse in particular parts of the world.

Referring to footage from the film relating to the effects on the Greenhouse Effect on two farmers - one in Ethiopia and one in North America, I asked who they thought would be worse hit by environmental change. Here I was trying to ascertain whether they felt that farmers living in wealthier countries where farming is a commercial venture would be just as badly hit as those farmers growing for subsistence.

TERMINOLOGY

Throughout my research there were problems of misunderstanding and confusion resulting from the terminology. These sometimes surfaced in answers to the questionnaire and sometimes in the focus group discussion. For example, I should have thought about the interchangeable ways of talking about the Greenhouse Effect as global warming. The documentary film on the Greenhouse Effect did mention global warming, but did not really emphasize the similarity. I was very concerned that this had created a false impression of the issue, particularly that this might have caused the group who thought, as later outlined, that the Greenhouse Effect was something that happened to greenhouses. However, even before seeing a video discussing the Greenhouse Effect, certain group members expressed such misconceptions. Other misconceptions occurred when people confused different environmental issues. For example, James in Group 5 wrongly associated the hole in the ozone layer and the Greenhouse Effect:

> James   *I've heard about the ozone layer getting holes in it but I*
>   *never knew it was called the /Greenhouse Effect.*

Such misconceptions may warrant future research to focus on young people's ideas of what specific environmental problems are, possibly obtained through written responses.

This is not to say that older people understand all the word meanings used in a conversation or that a lack of understanding, in any age group between speaker and listener, is made known. Stannistreet & Boyes (1996) note that even among

university students studying ecology there are misconceptions about environmental issues.[26] Therefore, it should not be assumed that respondents make the same connections between terminology that has the same or a similar meaning; researchers should think through possible alternatives to key words when planning research.

INDIVIDUAL INTERVIEWS

In the individual interviews basic questions focused around the respondent's own individual concerns and actions, often following up information obtained in both the questionnaire and the first focus group. I asked the young people about their knowledge of recent environmental issues, and of their memory of the cartoon.

I went into the individual interviews with an interview guide and the completed questionnaire of the person being interviewed so that I could tailor the questions to the individual. Like the focus group, some of the questions in this part of the research developed over the course of interviews. For example, half way through the individual interviews, I began to ask how respondents would react if they had to make a decision about building a bypass road through a forest in which a rare species of bird lived. This question linked into discussion of the Newbury Bypass and sought to locate interviewees' stance on whether rare animals took priority over human needs. While 12 responses to this question would have been more beneficial than just the 6 to whom the question was asked, the responses of these 6 still give an interesting insight into their priorities relating to human construction disturbing the natural environment.

It is interesting to note the effect of interviewing people on their own after you have spoken to them in a group. Some people remained the same; others completely changed becoming much more confident; whilst others still became very quiet after they had been the lead speaker in the focus group. Thus interviewing people alone offered me the chance to collect data within a different set of social dynamics, and to obtain more information about a particular individual than obtained solely from working with a group. Obviously each method has a value in its own right:

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[26] Even Giddens may have made a mistake, although it could be poor expression and over-compression which may suggest an error: "the 'greenhouse effect' deriving from atmospheric pollutants which attack the ozone layer, melting part of the ice caps and flooding vast areas" (1990:127).

"Instead of disregarding data from group settings we need to acknowledge the different types of discourse that may be expressed in the 'private' and 'public' arena, or with peers versus with an interviewer" (Kitzinger, 1994:117).

PARENTAL QUESTIONNAIRE

The questionnaire (see copy in Appendix 4) given to the parents allowed a counterpoint to the responses given by their child. The questionnaire for the parents was similar to that which their children had completed albeit supplemented by several other questions. Some of these new questions were taken from existing surveys. In addition to what their children had been asked, the parental questionnaire looked for reflections on their child's pro-environmental behaviour, parental work changes, parental activism and opinions on who they felt should be teaching about environmental issues.

Both the Head Teacher and the class teacher did not hold out much hope for the successful collection of parental data especially when the questionnaire was to be returned in the mail. In the past when the school has sent out letters they have got little response back from the parents. I sent the questionnaire out with self-addressed envelope. Despite the potentially daunting length of the questionnaire, I received twelve back the first time round and another two back from the second mailing. I was very pleased with this response rate. However, as 7 of 14 returned were from parents who reported that they were 'very concerned' about the environment , there was a definite skewing of responses.

The majority of the 14 parents who completed the questionnaire were women meaning that the overall parental responses are further skewed by gender. Thus, if there is a gender difference in adult levels of concern, then this would further compound the skewing of results.

Interestingly, of the 14 parents who completed the questionnaire, 5 were returned from all those with children in the top reading group in class and 3 were from the parents of the bottom three class readers, leaving 6 from the rest of the reading levels. Thus, parents whose children are doing very well or very badly have responded whereas the parents of a large number of young people in the middle reading range have not responded to the questionnaire.

The parental questionnaire offered an opportunity to collect more information about the social background of the young people. For example, Questions 1-8 asked for personal details such as age and number of children. Questions 44-52 asked for details of education and work in an attempt to locate the socio-economic status of the research participants. However the information provided proved inadequate to establish firmly socio-economic status and on reflection, seemed to be inappropriate with such a small number of respondents, accentuated by the even smaller number of parents who responded to the questionnaire.[27]

Questions 9-11 sought to determine general levels of environmental awareness and concern. These responses fed into more detailed information on local (Qu. 12-15) and global (Qu. 16-19) environmental concerns similar to those asked to their children. Question 20 & 21 asked respondents who they thought should help environmental problems. Question 22 asked where they heard most about environmental problems. These questions were practically identical to those asked of their children, and provided good sources of comparison. Question 23 was new, drawn from a question that I had asked the young people in the focus groups regarding whether they would like to know more about environmental issues.

Questions 24-30 requested information on environmentally-friendly behaviour at home and when shopping regarding both themselves and their children. This allowed interesting intra-familial comparison on what they thought was done in the home to help the environment, enabling an appreciation of whether household members act pro-environmentally together. In future I would ask if they considered any of their behaviour as environmentally-damaging and in need of amendment. Leading on from this, I was also interested to know if parents had been prompted by their children to act environmentally. Often socialization theories assume a one-

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[27] During my data analysis I tried to isolate class differences between the responses, for example, with environmental interest, but the results showed no distinctive groups: those who are very interested and slightly interested in the environment hail from all the classes represented. While the lack of findings of class differences do support Gauntlett's (1996) research with 7-11 year old people, the small size of sample means that it would be impossible to say anything firm about class differences in the data. Of the children whose parents I have been able to code into occupational status groups 5 are from a middle class intermediate managerial, administrative or professional group; two are from a lower middle class group of supervisor or clerical and junior managerial, administrative or professional group; 3 are from a skilled working class group of manual workers; 2 are from a working class group of semi- and unskilled manual workers and 5 represent groups of unemployed couples, single parents and pensioners.

way direction of learning from an adult to the young. I was keen to see if this simplistic model could be challenged.

Questions 31-35 sought to identify whether parents thought that environmental issues were controversial and whether they thought their child should learn about environmental issues at school, at home, and through the media. Questions 36-37 related to friends' concern for the environment and parallel the questions asked of the young people about their own friends. Questions 38-39 were important as they helped to establish whether the parents actively supported or helped the environment and in what ways. Furthermore, I wanted to see if the young people who had active and concerned parents were more aware, interested or active than those young people whose parents who had little interest.

Question 39 was drawn from work originally by MORI's[28] Robert Worcester (1994) and later used by Corrado & Nove (1995) in their Scottish Environmental Survey. Worcester sought information on whether people had conducted any 'environmental' activities over a 24 month period. These ranged from 'watching a TV programme about nature or the environment' to 'considering voting for a national political party because of their Green policies'. For Worcester, environmental activism is signaled when a person has done five or more of the activities. I adapted the table by adding certain questions and changing others. I looked for activism within a twelve month period. Obviously this table like the other figures cannot be statistically monitored to see if the figures are significant but they do allow an enriching of the data on an individual and household basis. Question 40-41 asked whether parents thought their work had changed because of environmental issues. Question 42 asked if they thought that the future would become better or worse environmentally. The final question before the second battery of personal details was to ask whether there was anything else that the parents wanted to impart to me about environmental issues and their involvement. This question sought to locate any areas that I had overlooked in the construction of the questionnaire.

TRANSCRIPTS

I typed up both the recordings of the individual interviews and the focus groups. I used a transcription machine to listen to audio tapes made from the video tape or

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[28] MORI - Market and Opinion Research International

from the audio taping which I began to use for insurance after my early mechanical failures. Because I had video taped the focus groups I was easily able to identify the speakers by viewing the video recording after it had been transcribed.

Although I was intending to type up the transcript after each of the focus groups, I very quickly found myself behind schedule. It was all I could do to get to the school every week with my equipment recharged and knowing who was to be seen this week. In future research using interviews, I would be much more organized in getting the transcripts done quickly following each interview. This would enable greater reflection about the data collection during the overall process.

As Table 3.1 shows, I noted a variety of speech acts in the transcript. Initially, I spent a lot of time listening to extract every last spoken sound from the tape, including those points where there was nothing spoken. Silence was relayed in the transcript by adding a back slash '/' for each two seconds. After a while it became apparent that I did not need the transcripts to be so detailed. Rather than fastidiously counting and checking the length of pauses, I began to count in my head marking as time passed, every two seconds of pause. Similarly I did not spend so long on trying to decipher words that I could not make out from the tape or video. After several tries I learnt to move on and accept the omission. For patches of the discussion which had moved well away from the environment, I placed three vertical dots, to show that not all of what had been said in the interview had been transcribed. As Table 3.1 shows, I noted when two people spoke at once, and the point at which the second person started speaking. When a first speaker was interrupted and later continued, I noted this to indicate that they were speaking after having momentarily paused to let the other speaker finish.

TABLE 3.1
Transcription Notation

=	*Two people speaking at the same time - usually an interruption by a second speaker.*
/	*Pause. Each slash represents 2 seconds.*
. . .	*A note that a large section of the text has been omitted because it was deemed to be very unrelated to the discussion at hand.*
(&)	*A note that the speaker has continued what they were saying after a short break or pause.*
...	*Words omitted as irrelevant or indecipherable.*
(........ ?)	*Writing into brackets what I think the indecipherable word is.*

I had hoped to type up Scots language when it was spoken during the research. Although I managed to identify some words, I could not always distinguish Scots from English and automatically converted the words into the English spelling or version.

Finch (1986) suggests sending interview transcripts back to the respondents to allow them to add or remove statements which they might feel are inaccurate. While this is an important suggestion, having done focus groups would make the process more problematic. However, I can see the benefits of doing this for interviews with individuals although my research ran too closely to the end of term to get back to the respondents particularly as I had not managed to transcribe much of the interview data before the research collection finished.

ANALYSIS

I had decided that to do the analysis 'properly' I would need a computer qualitative data package. I looked at several but decided that I had too many queries about using the packages. I was concerned that I would not have time to begin learning the package and then abandon it if I still was not happy with it. In the end I decided that I felt much happier analyzing my data without the aid of a computerized analysis package.

Actually, what was pivotal for the analysis was getting to know the data inside-out becoming familiar with the range of responses. It was from this, and from looking back at the question areas, that the categories of response emerged.

Relevant pieces of transcript were highlighted with some multi-coloured sticky paper which I wrote notes on, ordered by colour for each category, and stuck throughout the body of data. Then, working with the word-processed transcripts from the focus groups and individual interviews, I set about ordering them into areas of discussion and from these could clearly see across the whole range of responses.

Occasionally, I used the word processing package to give me additional information. To gain knowledge about an individual speaker in the focus group I sorted all of their responses into a new word processing document. This allowed an overview of their input into the research session. On another occasion I counted all

the utterances made by each individual class member in the focus groups. This allowed an appreciation of the level of interaction occurring in the group, highlighting when one person dominated the group or when group discussion was very equal. I also used the word processing package to search for certain words which I felt had cropped up regularly in the discussion or as an aid when I was searching for certain sections of the text.

To analyze the questionnaires, I put them onto a spreadsheet computer package and set about looking at cross tabulations and the means of responses. This package allowed me to compare child and parent responses directly, analyze respondents on an individual level, and to compare a whole range of variables to see if anything unusual or outstanding emerged.

I tried to locate patterns of responses between, for example, parents and their children; girls and boys; those very interested in the environment and those not; different socio-economic groups (where possible); and those who had directly experienced the effects of environmental problems and those who had not. Despite my attempts, it was difficult to locate any really successful instances of differences in the data. The most striking differences, especially given the small sample size, was gender.

Putting the qualitative and more quantitative data together allowed me to fill some of the gaps where, for example, additional information gained in the individual interviews added to questionnaire material.

I wanted to check, given the richness of the data being collected whether the young people were consistent in their responses. To this end I as so asked certain questions several times over. Questions such as "do you think that environmental problems will get better or worse or stay the same in the future" were repeated in every research collection point. Interestingly, the majority of responses to this question remained the same although I would suggest that focus groups encouraged a swaying of opinion for some people.

Ritala-Koskinen (1995) believes that analyzing data from young people is particularly problematic given their 'difference' to adults:

"What a researcher can do is to take the context into account and try to make visible the different cultures and so ... try to reach children's worlds. In any case I see that an effort to reach some kind of authentic world of children is impossible. Instead different versions of children's worlds can be found in different contexts" (1995:314).

While I would agree that it is important to locate data within the context it has been collected in, I would argue that all data can suffer from misunderstanding, especially if the research is undertaken with prescribed expectations about the group, for example, what it 'means' to be an adult.

Obviously, the conclusions in this work are arrived at from a very small sample and in no way can they be said to be generalizable to the rest of the population of young people aged between 11 and 12. However, they do begin to untangle the complex picture of environmentalism in a day-to-day context and should be fruitful for future research in this area.

CONCLUSION

Young people do differ from adults but they also have much in common with them. Indeed, at times and in certain situations, some young people will find that they have more similarities with certain adults that they do with some of their peers. Young people may share distinctive experiences by virtue of living in a particular historical epoch and they share opportunities to create distinctive cultures in their age groups as they have a relatively structured day-to-day existence. Young people's relative dependence on adults is also a distinctive relationship to society in which some adults share: those lacking strength - the sick or the elderly; those lacking rights - captive groups such as those in asylums or prison; those lacking financial control - the large body of people now dependent on state benefits; those with a different physicality - the many people who do not physically fit the image of the 'normal person'. Over-awareness of difference when studying young people turns into under-awareness when studying adults. Thus, previous research involving young people assumes far too little competency, and with adults, far too much competency.[29]

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[29] I advocate for re-estimation of research with adults, seeing them as more of an unknown to researchers than previously considered. It should not be assumed that mutual adulthood ensures a strong connection between researcher and participant.

Different power relations potentially influence data collection. This means that thinking of ways to reduce power is an important consideration when planning research. One suggestion for maximizing young people's power in research is to give them some control of the research equipment as Caputo (1995), Gauntlett (1996) and Watts & Ebbutt (1987) have done. This way, young people can potentially do research in their own space, when they choose to, and can return it when they are ready to.

The mixed methods used in this research aimed to discern a broad picture of environmental concerns and everyday actions, along with an appreciation of what young people think about environmental media.

My findings could have been a fuller account of everyone in the group, rather than those who were willing to participate in the focus groups. Achieving this however, by using, for example, more structured research methods, would have compromised my research ethos. It would also have caused its own set of problems surrounding the authenticity of responses either from unwilling people or because the research agenda was not flexible enough to take in their version of events. Instead I opted to test the consistency of responses by asking certain questions throughout the research.

Thus, when researching young people about the environment and the media, it is vital to assess their responses in the context within which they were made: within modernity; within power relations on macro-, meso-, and micro- levels; within the institutions and organizations that help frame and structure perceptions of young people, the media, and the environment.

Ultimately, these methodological issues stem from the growth of the humanistic paradigm and the reduction in quantitative approaches to a single 'truth'. Following the break up of the universal developmental canon, young people's experiences have been recognized as far more complex and context-bound than previously thought: knowing what one 11 year old person thinks does not presage the responses for all of that age.

CHAPTER 4
ENVIRONMENTAL CONCERN

This chapter explores the respondents[1] interest in environmental issues, and highlights which environmental problems are considered serious on both a local and global level. Their thoughts on the causes and solutions of environmental problems are analyzed, along with who they feel is ultimately responsible for handling them. Strategies for dealing with environmental issues such as protesting and campaigning are considered for their effectiveness by the young people. Their thoughts on the future are exposed and contrasted with levels of environmental interest. In addition to these analyses, questionnaire data collected from parents are compared with data from their children.

As revealed in *Chapter 3*, during the data analysis I tried to isolate class differences between the responses, to correlate them with environmental interest, for example, but the results showed no distinctive relationships: those who are very interested and slightly interested in the environment were represented in all socio-economic groups. While the lack of findings of class differences do support Gauntlett's (1996) research with 7-11 year old people, the small size of sample means that it would be impossible to say anything conclusive about class differences from the data. There were clear gender differences, however. While this chapter will describe gendered responses from the group, this issue will be taken up more directly in *Chapter 5* where it will be considered in the light of Gilligan's (1982/1993) theory of the 'different voices' of distinctive moral reasoning based on gender.

LEVEL OF ENVIRONMENTAL INTEREST

Numerous surveys have shown that both adults and young people are highly concerned about environmental issues. For example, a large scale project conducted by Filho and colleagues (1996) studied 20,000 young people, in 16 European

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[1] See Appendix 1 for a list of the respondents and their groups.

countries. When averaged, they found that 62% of European youngsters stated that they were 'very concerned' about environmental issues. Only 7% from across all the countries said they were not concerned. A MORI survey of English 8-15 year olds conducted for the Department of Environment (1993) found similar results.

My findings are comparable to larger quantitative surveys. As Table 4.1 highlights of the 28 people in the group, 21 (75%) are either 'very' or 'slightly interested' in the environment. Only 1 person said that he was 'not interested' in the environment. Of the 17 girls and 14 boys taking part in the research, the highest percentage of interest for both boys and girls was in the 'slightly interested' category, although girls were somewhat more interested than boys. This level of greater interest is also reflected in the categories of 'very interested' and 'not very interested'. Here, more girls than boys were 'very interested' in the environment, whereas more boys than girls were 'not very interested' in the environment.

TABLE 4.1
Level Of Environmental Interest By Gender

Level of Env. Interest	Research Group (n=28)	Girls (n=17)	Boys (n=11)
Very Interested	6 (21%)	5 (29%)	1 (9%)
Slightly Interested	15 (54%)	10 (59%)	5 (46%)
Not Very Interested	4 (14%)	1 (6%)	3 (27%)
Not Sure/Don't Know	3 (11%)	1 (6%)	2 (18%)
Total	28 (100%)	17 (100%)	11 (100%)

Data from questionnaire completed by the young people.

PARENTS

Questionnaire data received from parents[2] found strong environmental interest: 7 of the 14 respondents said they were 'very interested' in the environment and environmental problems; 3 said they were 'slightly interested'; 2 said they were 'not very interested'; 1 said they were 'not sure' how interested they were, and 1 did not respond to the question. As detailed in *Chapter 3*, not all the parents returned the questionnaire (14 out of 28). Therefore, it seems likely that those parents who completed the questionnaire would be more interested in the environment than those who chose not to. This suspicion is supported by the overall level of interest held by the parents.

As Table 4.2 depicts, when comparing the interest of children and their parent, 6 of the parent/child pairs had a similar level of concern. In 5 cases, parents were more concerned than their children. Four cases could not be established as one of the party was 'not sure' of their environmental concern. There were no definite cases where the child was more interested than his/her parents.[3] While this might be explained by the skewing of parental results, it might also indicate that contrary to the rhetoric of "youth as defender of the environment," parents are in fact more environmentally interested than their children.

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[2] When looking at parents' interest in the environment, as with their children, no discernible socio-economic pattern emerges. However, by looking at the age group of the parents there appears to be stronger interest in the environment for older parents. In the 35-49 age group (n=9), 6 people were 'very interested' in the environment as opposed to 1 from the 25-34 age group . This younger age group (n=5) were more likely to be 'slightly interested' (n=3) or 'not very interested' (n=1). There were no significant educational differences between those who were 'very interested' in the environment: of the older group, two had degrees, two had passed Scotvec Modules and two had no qualifications. The younger person who was 'very interested' highest academic qualification was O'Levels. Of the rest, who were slightly interested or disinterested, there were similar levels of qualification - albeit none had degrees - the highest qualification being Scotvec's or O'levels. The notable differences between level of interest may be due to the lack of free time and money experienced by young families. However, the sample is far too small and lacking in the life style information to firmly draw such conclusions.

[3] Of the parents who did not respond, 3 had children who were 'very interested' in the environment, 10 had children who were 'slightly interested', 1 had a child who was 'not very' or disinterested, and two had children who were 'not sure' how interested they were.

TABLE 4.2
Contrast Between Parent And Child Environmental Interest

Parent (n=13 Pairs) Child	Very Interested	Slightly Interested	Not Very Interested	Not Sure /Don't Know
Very Interested	3	-	-	-
Slightly Interested	2	2	-	1
Not Very Interested	1	1	1	-
Not Sure /Don't Know	1	-	1	-

Data from questionnaire completed by the young people and their parents

LOCAL ENVIRONMENTAL PROBLEMS

In the questionnaire, the young people were asked to rate their perceptions of the severity of a range of potential local environmental issues. As Table 4.3 shows, cumulatively, litter was the most serious issue, followed by dog dirt, traffic and wildlife in danger.

It is obvious that the perceived severity of local environmental problems varies depending upon locality. However, perceptions are shaped by a variety of environmental information sources such as school, media or family members. In some respects, it is not surprising that litter was the problem given the highest severity rating. It is an issue that has been in constant discussion in the school. All pupils have been given the responsibility for cleaning up litter in a particular part of the school grounds. Those deemed the best 'litter patrols' in the school are periodically awarded certificates of merit. Additionally, litter is a far more familiar and visible everyday problem than, for example, wildlife in danger.

While these findings have a local context, a MORI survey (cited in Church & Summerfield, 1994)[4] of 8-16 year old people found a similar level of concern. For example, 11-12 year old people in the MORI survey identified litter as the most

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[4] Details of this survey can also be found in the Independent (1994) 'TV generation with a 'green' conscience' by Marianne MacDonald.

serious local issue, followed by traffic fumes and then danger to wildlife. Dog dirt came sixth on the list, following factory pollution and oil/sewage on the beach.[5] While the issues identified by the people in my study resonate with these more broadly researched findings, it is interesting that dog dirt is much more of a local problem in my research context than deemed by those in the MORI study.

TABLE 4.3
Perceptions Of Severity Of Local Environmental Issues

LOCAL ENVIRONMENTAL CONCERNS (N=28)	VERY SERIOUS	SLIGHTLY SERIOUS	TOTAL
Litter	13	9	22
Dog dirt	10	8	18
Wildlife in danger	12	3	15
Traffic	9	6	15
Noise pollution	7	6	13
Factory pollution	9	2	11
Water tasting bad	5	3	8

Data from questionnaire completed by the young people.

There was a space left on the questionnaire for the young people to indicate other issues that they might identify as local environmental problems but which were not provided in the list of problems. Six people did suggest alternative issues: sewage on the beach; too much traffic; too much glass; too many nasty people; vandalism; and smoking. This list is noteworthy because it highlights a broader interpretation of what is deemed to be an environmental problem. Furthermore, it indicates an attachment of blame to individuals, for instance, those who are seen as nasty, smokers, or vandals. Here, environmental issues have become personified as those perceived as 'dysfunctional' individuals within the community.

All issues considered serious by the respondents were rated such regardless of gender.[6] However, with the exception of the category 'wildlife in danger,' girls were slightly more likely to rate issues severer than boys.

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[5] Pollution at the beach and in the sea was not an issue raised in the questionnaire.

[6] I tried to ascertain any links between the severity rating of a given problem and the level of interest a person had in environmental issues. The theory being that those who are not interested in the environment would be less concerned. However as the numbers involved in the study are very low, I only had one respondent, Frankie, who was not interested in the

As Table 4.4 illustrates, the issue most considered to be 'very serious' was litter, when looking at gender differences in responses, boys, in fact, rate 'wildlife in danger' as a more serious local issue than 'litter,' by a single vote.[7] However, it was an 'either-or' concern for both genders.

TABLE 4.4
Severity Of Problem -Wildlife In Danger

Wildlife In Danger	Very Serious	Slightly Serious	Not a Problem	Not Sure
Boys (n=10)	5 (50 %)	1 (10 %)	4 (40 %)	0 (Zero %)
Girls (n=16)	7 (43.8 %)	2 (12.5 %)	6 (37.6%)	1 (6.3 %)

Data from questionnaire completed by the young people.

Table 4.5 reveals a gap between girls and boys in the perceived severity of local issues in the figures for factory pollution. Overall, the girls saw it equally as a 'very serious' concern or as 'not a problem'. Taken together, boys saw it first as 'not a problem' and then as a 'very serious' problem. While this may have arisen because some of the group live near a factory, this does not account for the gender difference in perceived severity

TABLE 4.5
Severity Of Problem - Factory Pollution

Factory Pollution	Very Serious	Slightly Serious	Not a Problem	Not Sure
Boys (n=11)	3 (27.3 %)	0 (Zero %)	7 (63.7 %)	1 (9.1 %)
Girls (n=15)	6 (40 %)	2 (13.3 %)	6 (40 %)	1 (6.7 %)

Data from questionnaire completed by the young people.

environment. Looking at his responses he did often mark issues as "not a problem" but so did people with other, higher, levels of interest. He stood alone in thinking global warming a slightly serious issue and nuclear power not an issue. Interestingly, he was the only person who thought that over-population was a very serious issue.

[7] While I do not want to make too much out of these figures, it would be worth extending this study with these 'potential' differences in mind.

MOST SERIOUS LOCAL PROBLEM: INDIVIDUAL CHOICES, CAUSES AND SOLUTIONS

In the questionnaire, following the table of local environmental issues, I asked people to indicate the problem which they thought was the 'most serious' by placing a star next to it. I then asked them to write down why they thought this particular problem happened and what they thought could be done about it (see Appendix 3).

Of the issues starred, 5 were for wildlife in danger; 5 were for litter; 2 were for dog dirt; 2 for traffic, 1 for pollution and 1 for smoking. The 5 people who starred 'wildlife in danger' were all girls. This is somewhat curious given that, when the figures are taken together, the boys rated this as the most serious local environmental problem.

Alison thought that wildlife was in danger "because some people don't think of what they are doing and just go ahead and shoot animals, for instance, the elephants which are getting killed for their tusks." While the sentiment of people not thinking may be her main thoughts on why local threats to wildlife exists, the example of removing tusks suggests that she was thinking beyond her local environment. Thus, caution must be taken here, as *Chapter 3* suggests, because differences may have arisen from inconsistencies in the interpretation of what 'danger to wildlife' means, and in what locale.

Other causes mentioned for 'wildlife in danger' were simple and unspecified, such as Catherine's "because we are not perfect" or Lucy's belief that "because some people are bad and some are good." Kelly asserts that "the problems start because nobody cares about the environment."

Kelly's suggested solution to this problem is that "if people took care of the environment and never put rubbish everywhere wildlife would not be in danger." Alison and Catherine suggest a more general solution that people should think more carefully about what they are doing.

Litter, a salient issue for many in the group, was considered to occur "because people just throwing it away in the street" (Mary); through lack of bins (Arthur); because of dogs tearing rubbish bags in the night (Tina); and because "people are too lazy to find a bin" (Carol).

The solutions to litter were more constructive than those for wildlife in danger which may again reflect the greater saliency of litter as an issue in comparison to local wildlife in danger. Arthur and Mary thought that there should be more bins; Carol thought that the road sweepers should do a more efficient job, and Tina felt that people should go out with their dogs so that they cannot tear open rubbish bags.

The solutions to the other problems mentioned were similarly expressed either through rules and penalties (Darren, Nicholas); changing one's behaviour (James, Ian, Belinda, Beth) aided by more education (Wendy); or by correcting the damage, for example, by planting trees (Frankie).

From the data, most of the causes for specific environmental problems stem from individual people being thoughtless or careless. No governmental/industrial causes were mentioned at all. The solutions offered were more diverse and concrete suggesting the necessity of an organizational structure, such as: changing rules, offering education, or rebalancing the environment.

GLOBAL ENVIRONMENTAL PROBLEMS

As Table 4.6 indicates, global environmental issues were rated as 'very serious' environmental concerns to a far greater degree than local environmental concerns. Therefore, perceptions of global problems are far stronger than those of local issues. This suggests the importance of mediated environmental information sources such as television or newspapers. For some global environmental problems, there is a gap between the problem and the experience of it at a local level. Furthermore, certain issues will be perceived as local to some people whereas to others they will not.

The concern cumulatively rated as the 'most serious' global environmental issue was ocean pollution, followed by damage to the ozone layer, unclean drinking water and animal extinction. A MORI survey of 11-12 year old people (cited in Church & Summerfield, 1994) found very similar results whereby ocean pollution was reported as the most serious global environmental issue, followed jointly by deforestation and damage to the ozone layer, and fourthly, animal extinction.

TABLE 4.6
Perceptions Of Severity Of Global Environmental Issues By Gender

SERIOUS* GLOBAL ENVIRONMENTAL CONCERNS	GIRLS N=17	BOYS N=11	TOTAL
Ocean pollution	15	11	26
Ozone hole	16	9	25
People not having clean drinking water	13	11	24
Animal extinction	14	10	24
Starvation	14	9	23
Ill-treatment of animals	13	9	22
Nuclear & toxic waste	13	9	22
Rainforest destruction	11	10	21
BSE	14	7	21
Global warming	13	6	19
Acid rain	9	8	17
Nuclear power	10	3	13

Data from questionnaire completed by the young people.
*Very serious or slightly serious.

In the section at the bottom of Question 10 where space had been provided for alternative global environmental issues that I had overlooked (See Appendix 2, Qu. 10; and Appendix 3), several issues emerged: war (2 mentions); sea sewage; traffic pollution; the wasting of paper; the African water shortage; tree felling (all 1 mention).

The table of global environmental concerns when viewed by gender creates some different readings as to which problems are the most serious. As Table 4.7 below shows, when ranked, boys rate three issues as equally serious whereas girls rated one. The issues of ocean pollution, animal extinction and destruction of tropical rainforests were considered of equal severity for all boys (100%). Interestingly, girls ranked the issue of the destruction of tropical rainforests as tenth, well down on their list of global environmental issues.

For girls, BSE was a comparatively more serious problem than for boys: they placed it joint fourth (93.3%) whereas boys placed it tenth (70%). Similarly, girls felt that the ozone layer was the second most serious problem (94.1%) whereas the boys placed it sixth (81.8%).

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TABLE 4.7
Ranking Of Severity Of Global Environmental Issues By Gender

ENVIRONMENTAL CONCERNS	GIRLS (N=17)	BOYS (N=11)
Ocean pollution	1	=1
Ozone hole	2	=6
People not having clean drinking water	=7	4
Animal extinction	3	=1
Starvation	=4	5
Ill-treatment of animals	6	=6
Nuclear & toxic waste	=7	=6
Rainforest destruction	10	=1
BSE	=4	10
Global warming	7	=11
Acid rain	11	9
Nuclear power	12	13
Damage to the Desert	13	=11
Over-Population	14	14

Data from questionnaire completed by the young people.

Other issues received an equal or close rating from both the boys and girls. These included: ocean pollution; starvation; nuclear and toxic waste; ill-treatment of animals; nuclear power and over-population.

MOST SERIOUS GLOBAL PROBLEM: INDIVIDUAL CHOICES, CAUSES AND SOLUTIONS

The written discussion in the questionnaire of what respondents considered the most serious global environmental issues (see Appendix 3), was similar to that of the cause and solutions of local environmental issues. There was much focus on individuals as causing the problems. Individuals were blamed for hurting animals just for fun (Sarah, Suzanne); for not looking after the world (Tina, Steve); for using too many sprays which are tested on animals (Alison); or for generally not looking after animals to the point that they become extinct (Lucy). Other, slightly less individualistic, responses included Beth's suggestion that global environmental problems are the result of a combination of "pollution from factories and cars all over the world and from sprays containing CFC's". James suggested that these

things happen "because people start wars and they get very greedy and lots of people get not enough to eat."

The solutions suggested were mostly targeted at the individual to restrict their behaviour such as using the car less and using ozone friendly sprays (Beth). Lucy, in a similar response to her solution for local issues, suggested the need to "turn man and woman good." Other responses again advocated the infliction of rules and penalties to dissuade people from damaging the environment. Steve, for example, suggested the cessation of killing animals and the removal of factory pollution. Nicholas favoured a downright ban on toxic chemicals.

These responses can be problematic because in some instances, it is difficult to tell who is being targeted as an environmental solver. When Ian and Kelly write as a solution "Stop polluting" who is it that they feel must stop? Similarly, some solutions can only take place through groups at a national and international level but they are not expressed as such, for instance, James says that "people should stop starting wars." While he is seemingly referring to individuals alone, he may in fact be expressing organizational levels of response. Furthermore, when Alison suggests that people should stop testing products on animals I do not think that she is referring to people in general. The responses of 'people' are rather nebulous in that it is difficult to know whether the people being talked about are people generally or certain people. It would seem for some issues however, that the causes and solutions of environmental issues are personified rather than using broader concepts such as government, the developed/developing world or business. Thus, similar to Gauntlett's (1996, 1997) finding that most responses for solutions that the young people gave are seemingly on an individual level, this might be better explained as an expression used by the young people that misleads adult researchers into believing that they are offering individual solutions alone.

When asked where global environmental issues were severe, all but one of the people who answered thought that problems were worse in countries other than the UK. Two people thought that problems were equally bad the world over (Belinda, James). This supports work by Uzzell (1996) who noted that young people were more likely to think of environmental problems as distant events. The exception was Steve who said in the individual interviews:

> SCG   *OK / and how about / I mean do you think / this country has more environmental problems than other places in the world or /less or about the same?*
>
> Steve   *I think it's more / because / all the pollution in this country and that ...Like abroad they wouldn't have the pollution*
>
> SCG   *Why / why wouldn't they have it?*
>
> Steve   *I don't know it's just / when I go abroad I've na'er seen like / a big power station that's / got smoke coming oot ... It's just in this / big city that's got loads of buildings like that and it's/ it's horrible.*

In her individual interview, Carol suggested that Africa has serious environmental problems because of the climate. Later, in the focus group, she thought that pollution was not too much of a problem in Africa because,

> *"Well it isn't so bad in Africa cos there's hardly anything like that / they cannae afford anything in Africa/ like that/ so it wouldnae be so bad there/ but it'd be quite bad here / probably."*

Other places that were singled out for mention because of their environmental problems were India and China (Arthur mentioned prior to viewing the documentary), and America (Johnny and Ian), which was chosen by Ian because of the large number of cars there. However, Brian said in the documentary focus group, that America did not suffer too badly from environmental problems because they only really had a small population in comparison to the size of China. Suzanne also mentioned China although both Suzanne and Brian's responses probably reflect its mention in the focus group film of the Greenhouse Effect.

Albania suffered from environmental problems according to Johnny because "Well /all their/ all their streets are ruined and everything's just like/ all rocks and all that" suggesting a link to the amount countries have developed when rating their level of environmental damage. Caitlin thought Australia and America were bad. She had seen a photo of Boston, America taken by her Aunt who lives there. Also, she had seen or been told by her Aunt about "a little bird a little sparrow or something got trapped in a can." Suzanne mentioned the detonation of bombs in another part of the world but could not remember where and Lucy mentioned the war in Bosnia. Nicholas thought that the nuclear testing in the Pacific and the war in Israel were places that suffered from environmental problems, linking war into environmental damage. Steve thought that too much focus had been placed on the war in Bosnia at the expense of the rest of the troubled planet:

| Lucy | *I think in Bosnia cos they've never had/they never even had anything / food/nothing, water.* |
| Steve | *But people are caring about them now it took them long enough to get people to care about them and then the world started to erm get destroyed now and people are caring about them and other people and they're not really caring about the world now.* |

There were a wide range of responses to the question of where in the world suffered most from environmental problems. Some responses related to recent news items such as nuclear weapons testing and ongoing wars. Other choices were made on the basis of own or another (known) person's experiences of another country. Some people expressed a location on the basis of their knowledge or perception of that country whilst others chose places but could not explain why they had made that selection.

TALKING ABOUT PLANT AND ANIMAL ISSUES

I was curious to discern how the young people felt about animals and plants and whether they showed any signs of feeling interconnected with all living things. Of the environmental concerns raised in the questionnaire, animals were rated highly by both girls and boys, and in both local and global contexts.

Overall, there was much more discussion about animals than plants, particularly through stories either that they had experienced or through the media. Many of the young people had pets and so had direct experience of animals. In addition to this, and despite many of the young people living in inner-city areas, they had some experience of plants as part of the informal curriculum at the school.

Their talk of animals was wide ranging. Obviously, the conversation was geared more to 'animals under threat' and so their inclination would have been to discuss the more negative side of what animals experience rather than their own positive memories of animals.

Subsequently, there was much talk of animals in trouble. As outlined in *Chapter 7*, in many of the individual interviews in the discussion of the Milford Haven oil spill many of the first, and often the only, expressions of concern were related to the animals and birds of the area. Similarly, discussion of deforestation often led on to talk of the loss of animal habitat. In the focus groups there were expressions of how

we should look after animals and there were conversations and stories about neglected or unwanted pets.

There were many discussions of animal extinction, sometimes leading onto talk of the human use of animals parts. Some of these expressions were at a general level, such as Carol saying "just find another way to make things ... instead of having to destroy animals to do it."

In group sessions, people tended to list endangered animals and, sometimes, why they thought that the animals were being killed to the point that the species would become extinct:

SCG	*So I mean do you think animals are treated badly in real life or I mean do you think*
Nicholas	*=Sometimes*
Carol	*The endangered species are*
SCG	*Which ones do you think are endangered?*
Carol	*The elephants*
SCG	*The elephants, yeah*
Brian	*Tigers because they want the/they want their bones for the medicine*
Carol	*And lions for the coats and things*

Arthur was concerned about the use of ivory and thought that they should simply remove the ivory rather than killing the animal for it. Nicholas made a similar statement but thought that people should not be allowed to remove ivory. Ian thought that alternatives should be found rather than using endangered animals, for example leather and not snakeskin jackets. Steve expressed his anguish for the cattle in the widespread slaughter following BSE. He was concerned because some of the cattle were healthy animals.

There was also talk of seeing animals dead or maimed. These discussions were not always very sympathetic to the animals. For example, in the focus groups people told animal stories where nature was at fault or out of control and so caused the problems. There was also an aspect of discussion which focused on weird, bizarre and cruel animal stories. These stories place animals in a novelty category based on their unpredictability and emphasized their separation from human beings:

Nicholas	Philip in our class says that er one of his cousins or friend go a hammer and killed a hamster with it
SCG	=ahh cruel
Sarah	=aww
SCG	Was it for any reason or because they were just being stupid?
Nicholas	I don't know he just said it
Sarah	And Wendy in our class she said that her sister's friend got the hamster and it kept biting her so she threw it at the wall in it splat
Nicholas	Splat!

Mary	When my grandpa was younger he was driving back from his work and he was /going through this er path and it was quite dark and there were sheep in the field on the other side and/ one of them had got out and he/ran it over/with / and he couldn't stop /erm /and when he got back to the house my nanna says 'what's wrong with you' and he was awfully quiet and he says 'I ran a sheep over' and my nanna just said 'oh well squidgy sheep then'
	laughter
Ian	make up a coat
	laughter
Marie	me and my dad was in the car and my mum/nan was sitting in the back and there was a dog sitting in the middle of the road and so my dad pressed the horn and he went MOVE because my dad was just sitting there //five or ten minutes because he wouldn't move and so my dad went into the road and said GET and he wouldna get so erm my dad said 'go and give it a packet of crisps' so I gave him a packet of crisps/ I gave him a crisp and he went away and we could go past
Alison	Do you know where the park is on the way to the supermarket
SCG	OK, yeh
Alison	Well erm /I was /erm going there /with my mum and erm/we were / we were walking past cos that's the way from my house to the supermarket and it's the quickest way so we were walking past and we saw this cat and it looked really really weird /and it had like/ it looked like a skunk /and/erm and it had purple on it as well/ then we walked on a bit further and my mum said don't pat it cos it might be a wild cat and so we went a bit further and we saw this dog and it was shaved up there and erm and its tail was white and black /and erm/ it had like / its paws were not like that/ they had like five fingers and it looked really really weird.
	[discussion about car crashes in the snow and about cats getting run over]

Some discussions regarding the need to care for animals led to expression of the tension felt from the human consumption of animals:

Lucy	*They shouldn't really kill the animals/ you shouldn't /shouldn't really kill the animals to eat them.*
SCG	*OK*
Lucy	*Well/But it's bad enough using/some of the animals are used to make stuff like sponge /(....).*
Darren	*And like erm/ but if the coats for coats .*
Steve	*It's not a waste of time but cos if we kill them they're going to die anyway if we didnae eat them.*
Lucy	*We could live off vegetables.*
Steve	*Na (...)*
Wendy	*You have to kill the animals to eat because that's just the fashion simply (...) erm cos if you didn't the world would be over-run by animals so you really have to kill them at one point.*

Plants were discussed much less often and it was usually trees which were discussed rather than any other sort of plant. This is partly the result of the fact that I asked more questions focused on animals. However, discussions of both plants and animals did create the general feeling that, overall, plants were seen as less important than animals and that they were primarily sources of houses and food for animals rather than being worthwhile because of their very existence (Arthur, James). For example, James talks about why we should be concerned about elephants and not trees,

SCG	*Can you think of ones we should be worried about?*
James	*Like elephants and that / but not really just trees and that/ you don't really think about that*
SCG	*Right what do you /what do you think the difference is?*
James	*= Like // if they were cutting trees down in Africa it doesn't really harm us*
SCG	*OK*
James	*(&) and things like that*
SCG	*Right/ and how about elephants / why should we be worried about elephants*
James	*Don't know*
SCG	*Don't know*
James	*Just like / animals/ endangered animals / for like zoos and all that*

There was quite a lot of discussion about the need to recycle paper and that every tree removed from the soil should have another one planted in its place. There were some expressions of regret (Steve, Suzanne) about the two young Scots pine trees that had been planted by the pupils in the playground which had been vandalized in the school holidays. There was also a suggestion of planting trees in unused fields

and open spaces (Carol) which highlights the emphasis on trees rather than any other species of plant.

WHO CAN HELP?

I asked, on several occasions, who the young people thought should be helping environmental problems. Sometimes these questions were more specifically tailored to an individual environmental issue. Discussions of 'who should act' in the focus groups following the documentary, led to references from the film and so are not free of influence; however these are useful as they show what was selected, given that the film gave examples of what both the government and individuals could do.

The issue of who should help was also raised in the questionnaire, where respondents could choose from a list of suggestions or add their own choice. The questionnaire revealed that although the majority of the group thought that we all should help environmental problems, girls were more likely than boys to opt for an 'all of us' response.

TABLE 4.8
Who Should Most Help Environmental Problems By Gender [8]

	All of Us	Grown Ups	Govern- ment	Blue Peter	Env. Groups	Perpet- rators	Police	Don't Know	Multi Answer
Boys	3	2	1	-	-	1	1	1	2
Girls	9	-	1	2	1	2	-	-	2
Total	12	2	2	2	1	3	1	1	4

Data from questionnaire completed by the young people.

Analysis that contrasted young people's thoughts on who should most help environmental issues and both their level of environmental interest and their parent's response to a similar question, failed to find any connections.

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[8] Other choices on the questionnaire were: No-one; Children; Local Community groups; United Nations; Industry and Business; or space so that they could write in another answer. Tabled questionnaire choices actually read 'John Major and the Government'; 'Greenpeace and Friends of the Earth' for pressure groups; 'People who cause environmental problems' for perpetrators.

The above findings must be taken in conjunction with the responses to a general inquiry in the interviews into who is responsible for dealing with environmental degradation. Here, there were many more responses of 'government' or 'the council'. 'The government' was selected to deal with unspecified environmental problems (Carol, Lucy, Arthur, Johnny, James, Ian, Beth, Brian) and also specific issues such as trees (Johnny), BSE (Steve), and the focus of the documentary, the Greenhouse Effect (Ian, Belinda). When directly asked what the government could do, Kelly mentioned a Newsround story showing how in America, people have to divide domestic rubbish into different recycling bags, failure to do so resulting in fines. She thought this should be adopted by the government here. James suggested an inventive idea to ration energy in relation to the amount recycled by each household:

> *"Like they could do like if they/you/ however much recycling you do the more energy you could use/ and then that would/ just like people would only use/recycle lots and say you use/ loads of/ electricity you'd have to recycle/twice as much as that and then you'd be (...fixing it like that[?]...)."*

Carol said that the government were working on the problems of the ozone layer, possibly suggesting a faith that the really serious, imperceptible environmental problems are being dealt with.

The government was not always seen as offering assistance for the environment, indeed, some people suggest that they were acting hypocritically and not responding to environmental problems in the global political arena. For instance, Wendy suggested that "the government realize what's going on but they're aren't doing anything to help it ... cos the government are just doing it for money." James said that the government does nothing to help the environment. He drew on the film at one point, recalling a brief shot of an environmental summit where the world's leaders were sitting around a large wooden table:

> *"and like they say the government and /they say //they say like they're not wasting trees but /have you seen the size of the table was massive on the video. I mean how many trees did that take?"*

The young people also suggested that the council should deal with environmental problems, both as a whole (Carol, Lucy, Caitlin), and for specific local problems: litter (Carol, Caitlin), sea pollution (Caitlin), oil spills (Nicholas), vandalism (Nicholas), and even the desert (Christine).

In the interviews, a few other groups were suggested who could deal with environmental problems. These included the RSPCA and the police (Suzanne) car manufacturers (Ian), and people who know about the problems (Lucy).

This section has explored who the young people in this research felt were responsible for dealing with environmental issues. For those issues selected in the questionnaires as the most serious at a local and global level, individuals are blamed for the environmental damage but solutions moved beyond the individual level. In the interviews, the young people commonly stated that the government or the council should help. This would suggest some awareness of the available resources and working of these two institutions. The young people did not mention at any point environmental pressure groups although some had heard of them.

ACTION OR ACCEPTANCE OF THE SITUATION?

Despite acknowledging that certain people can help environmental problems, there was often acceptance that environmental problems would happen regardless of any ameliorating intervention. This led to environmental problems being spoken of in a 'taken for granted' way. For instance, Ian, talking about the Milford Haven oil spill said, "if it's an accident it cannae really/ be avoided" and later when talking about environmental problems in the future said, "you cannae really stop the future can you?" A similar set of 'resigned' responses came from Carol, Suzanne, and also from Steve who suggested that the Newbury Bypass was 'unstoppable' despite the protests, "nah cos they have to build it." and Johnny who thought that "it shouldn't [be built] but they've got the government on their side so it'll probably run."

An explanation for this sense of inevitability emerges from the work of Hicks & Holden who acknowledge that while young people receive much of their information from the media, the content is not always a great source of motivation or optimism because, "people are not shown as active agents of their destiny but rather as reacting to the inevitability of 'human nature' or 'technological progress' " (1995:13).

Johnny's expression of powerlessness and inability to prevent the occurrence of environmental problems was expressed by others, for instance, James in Focus Group 5:

SCG	and do you think do you think that more should be done to help them (Animals in danger of extinction) ?
Pause	[James, Suzanne, and Kelly nod, Douglas shakes his head]
Laughter	
James	aye, yeah probably
SCG	and who do you think should do it?
Kelly	don't know
James	you cannae you can't really help them that much
SCG	right

Some discourses suggested preventative and rectifying actions. These ideas were not focused on changing social structures to stop the problems from happening but on mitigating their effects. For example, when Lucy was discussing the use of trees for making paper, although she suggested ways to reduce the use of trees, overall, she still accepted the use of trees for making paper.

| Lucy | Well I suppose everybody needs trees to make paper but you can recycle paper / and stuff you can recycle a lot but erm /if they were to cut down trees then they should plant more and like cos there's lots of country areas that are just like / wide fields and stuff that they could plant trees in. |

On other occasions people could not think of any ways around the problem we were talking about (Ruth).

While for some people environmental problems happen by accident, for others it is nature itself that is the problem. For example Alison said that:

"Sometimes it's the animals own fault if they get run over because like /when I was /going on my holidays/ I was/ in my car and my Auntie was driving and erm/my mum was in front as well/ and then / this rabbit as soon as we got there it was sort of like that and then the rabbit just crossed as soon as we went in and she ran over she was wanting to stop but there was a car coming and it was just a one lane road /and/ she was want / she couldn't stop and then she says well it was the rabbits own fault and there was lots of them//erm they were like at that one side of the road waiting for at that side if the road and it was a shame really/we heard the thump."

Another group also expressed this inability to control nature.[9]

SCG	and do you think it's going to get better or worse or stay the same in the future/ the Greenhouse Effect
Carol	well you can't really help the /you can't really help the weather
Brian	it'll probably stay the same
Carol	(&) so it'll probably just stay the same

[9] However it must be noted that this is the group who thought that the Greenhouse Effect was something that happened to greenhouses alone - See Chapter 7.

Overall there is a definite sense of powerlessness and inevitability about the environmental problems we discussed. This is expressed by both girls and boys, although the boys were slightly more pessimistic and less likely to see a way round the problem. Hillcoat et al (1995) in a study of 15-17 year old people found a similar feeling of individual helplessness coupled with a sense that those groups with power were acting ineffectively. However, there was some optimism amongst Hillcoat's respondents that as they got older they would be able to tackle issues from a "grass roots" level and by having some political power (1995:169).

ACTIVISM - MARCHING FOR CHANGE?

There is actually very little that young people can do to express environmental concern and to take action to any great degree: they have limited spending power, they cannot vote, they do not have the freedom to go and join a demonstration, a political party or an anti-road camp. Their action is particularly limited without the consent, support and encouragement of an individual adult or adult created groups and institutions. Despite this, young people, albeit young adults, have been featured in the media recently following a variety of environmental protests to prevent roads and runways being built. Here, unlikely figures such as Daniel Hooper (or 'Swampy') have emerged as environmental heroes. I was interested to know whether the young people thought that protesting would make a difference to the environmental cause.

Members of the school staff, some parents and their children had recently been involved in a protest march in the centre of Edinburgh to complain about financial cuts made to the education budget. Using this as a contextual base, I asked them whether or not they thought a protest march would be a legitimate and useful device to complain about environmental damage and campaign for action. As in the previous section, most of them were pessimistic as to the impact that such a protest would have. Only one group were vaguely optimistic about the ability of writing letters and marching to make a difference but even this was tempered with uncertainty and Lucy's expression that, "they've probably got enough people nagging them to do something already." Belinda thought that "it's just causing trouble." This is a rather surprising point of view given that she had been very innovative to help the environment creating flyers about animals and putting on plays about litter. Johnny thought global agreement was needed saying "you could write a petition but you'd have to use all the countries in the world." There is a

sense from this that marching and complaining is rather out of their realm, and that doing so will not affect outcomes.[10] This was expressed as a general feeling of helplessness in the majority of the groups:

> *Group 5*
> *SCG*   *a petition// I mean do you think that would that would be useful to complain about the environment*
> *Douglas*   *Yeh*
> *James*   *I don't know because people said they were marching for nothing*
> *Laughter*
> *James*   *(&) that's what the government did*
> *SCG*   *ahha / so you/ you don't think it can help effect / no*
> *James*   *probably not*
> *Suzanne*   *some people don't care about the environment*
> *Douglas*   *do they not?*
> *Suzanne*   *nah*

ACTIVISM - KNOWLEDGE OF ENVIRONMENTAL PRESSURE GROUPS

There was a great deal of vagueness when I asked, in the individual interviews, about their knowledge of environmental pressure groups and what they do to help the environment. Some had not heard of pressure groups such as Greenpeace and Friends of the Earth (Caitlin, Suzanne, Carol), some, although having heard their names, did not know what they did (Ruth, Steve). Others knew what they did or managed to talk or guess (rightly or wrongly) about their activities (Johnny, Belinda, Nicholas, James, Mary, Arthur, Ian):

> *James*   *"Erm when / they were stopping/ like the trees were getting cut down ... And they were /chaining themselves to the trees."*
>
> *Belinda*   *I think they come to schools like what you're doing and /asking people what they think /and/ trying to help the environment /and /just things like that.*
>
> *Mary*   *Yeah I've heard of them but I'm not really sure what they do I know they do stuff like / campaign against pollution/... and trees and stuff/ but I'm not quite sure what they do exactly.*

More realistic answers came from James who spoke of the Brent Spar incident and Ian who thought they went on strike and complained about the environment.

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[10] This is somewhat in contrast to the policy of the school they attend which has encouraged pupil participation in decision-making.

In a 'way off' response, Nicholas gave an insight into his later documentary responses regarding the need, because of global warming, to reduce heat loss from the house.

> SCG   Do you know what sorts of things they [pressure groups] do?
> Nicholas   Like /global warming and all that
> SCG   ahha and what sorts of things do they do to help global warming?
> Nicholas   Making windows to prevent heat going out ... / putting central heating in houses so people aren't cold/ in the winter.

It is surprising that the respondents are not more fully versed in pressure group behaviour and activities. Pressure groups often create events to draw attention to environmental problems which would not normally be included in the news. Such issues are normally omitted from receiving journalistic coverage because as ongoing issues they are never deemed to be 'breaking news' and so worthy of inclusion.

FUTURES

Effective environmental protection requires a future orientation. When asking people for their thoughts of the future, Baird (cited in Stevenson, 1992) found that respondents had the same expectations of the future regardless of the time scale they were asked to think on, i.e. 20 years - 5,000 years. In their research of 7-18 year old people, Hicks & Holden (1995) asked respondents to discuss, in writing, their thoughts on the world in the future. They found that those young people of 11 years old were fatalistic about the future, fearing wars the most, followed by pollution, poverty and then other disasters.

In my research, I asked my respondents on several occasions for their thoughts on environmental problems in the future. Generally, the responses given by people remained the same each time, although one or two individuals changed their mind from the questionnaire to the interviews. The focus groups seemed to accentuate 'worse case' scenarios.

The questionnaire, as Table 4.9 reveals, offers a broad range of responses with 'worse' slightly ahead of the rest of the choices for both boys and girls. It is interesting that there are no strongly clustered views as to the future of environmental problems here. I could not locate from the questionnaire data any relationship between level of environmental interest and thoughts of the future.

TABLE 4.9
Expectations Of Future Severity Of Environmental Issues

	Much Better	Slightly Better	Stay the same	Worse	Much Worse	Don't know
Boys	2	2	2	3	2	-
Girls	2	3	3	4	1	2
Total	4	5	5	7	3	2

Data from questionnaire completed by the young people.

Without the constraints imposed by the questionnaire, the interviews gave the opportunity to discuss thoughts about the future. Some (n=8) thought it would get worse. There was some straightforward shouting out of 'worse' in the focus groups but occasionally 'better' or 'stay the same'. Several people (n=4) thought that it would get better although one of these thought that this was because the human race would be wiped out, therefore the planet would get a chance to improve:

Arthur	(Better) because /they'll/destroy everything and there won't be anybody to stop it
Kenneth	So a bit better
Beth	There's no denying that it'll get worse and then the world will blow up and then

[Someone makes world blowing-up noises]

Beth	(&) there'll be nobody to /do any harm/ and then it'll all get better again and they'll be nobody here to ruin it."

Steve thought that in the future, "I think they'll get better...cos people are more caring and... thinking and that."

The same debate was held by Group 5 in both of the focus group sessions. In this group, some members thought that environmental problems would get worse in the future before they got any better; that they will worsen before something effective is done. In other group discussions, people (n=5) suggested that the future is dependent upon what government action is undertaken. Carol acknowledges that government action is also dependent upon people taking heed of them:

Carol	"probably just getting there... cos the government have still got to tell everyone...to keep it clean...and they're forever telling you in the backs of packets of crisps and chewing gum wrappers/ to bin them and people just don't take notice"

There was also an idea that if we all work together, the future will get better (James, Kelly). Others thought that something needs to be done now before it gets any worse (Lucy, Belinda). Belinda suggested that if nothing is done her own (potential) children will be affected. A few thought that the problems would stay the same. Group 3, the group who thought that the Greenhouse Effect happened to greenhouses, thought that the Greenhouse Effect would remain the same in the future because it was beyond human control as the weather cannot be determined! Some (Sarah, Lucy, Carol) thought that certain problems would get better and certain ones would worsen. For example Lucy says: "I'm not sure but like most people like do do stuff and it's getting quite better now but in other places it's getting worse." Another (Ian) did not know, saying "that's the future to tell/ I'm Mystic Meg!" [pretending to look through a crystal ball].

For whose who changed their minds as they spoke, there was a definite lack of assured responses about the future (Suzanne, James). There seemed an assumption that if environmental 'damagers' are stopped then everything will be all right again.

Some thought the future could be improved with the aid of technology. For example, in the individual interviews some of the boys talked about possibly new inventions,

| Nicholas | *"They might get worse in the year 2000 but when they'll (sort it out?) with all the new inventions coming out."* |
| Johnny | *"worse...like if they don't come up with a new/car idea it'll just get worse and worse and it'll keep on going for years"* |

I was interested to learn whether there was any compatibility between parent and child in their thoughts of the future. As Table 4.10 indicates, there were few similarities. In fact the opposite is true: where parents thought the environmental problems in the future would worsen, their own children felt that they would improve. For parents, thoughts of the future seem connected with their own level of environmental interest. Out of the 7 parents who were 'very interested' in environmental matters 5 thought the future was going to get worse while 2 thought it was going to get slightly better. Of the remainder, those whose environmental interests ranged from 'slightly interested' downwards, thoughts of the future spanned right across the scale.

TABLE 4.10
Parent And Child Comparison Of Expectations For
The Future Severity Of Environmental Problems

CHILD	PARENT
Not Sure	Better
Much Worse	Worse
Not Sure	Worse
Much Better	Worse
-	Worse
Better	Worse
Not Sure	Worse
Better	Worse
Better	Better
Better	Better
Much Better	Worse
Much Better	Worse
Same	-
Worse	Better

Data from questionnaire completed by the
young people and their parents.

Overall, the young people felt that in the future there will be a gradual deterioration of the environment. There was some optimism that effective action would enable the outlook to improve. However, this was undercut by a feeling of inevitability and resigned powerless that nothing will actually be done in time, and, even if it is, it may not be enough.

> Ian   "I think they'll get worser//cos/things will be more advanced then eh? They'll have to use up more things/ they could hardly use more cars and that (SCG - And do you think there's a way to stop it getting worse?) Not really/ if / [Long pause] you cannae really stop the future can you?"

This is something which Hicks & Holden found in the seven to eighteen year old young people that they studied that:

> "They fear that the world will be essentially the same or worse than today. Whilst some pupils feel that they can act on a personal level to help create a better future, many do not" (1995:112).

CONCLUSION

This initial data chapter has established the respondents' level of environmental interest and registered which environmental issues they see as severe on a local and global level. As with large scale survey findings, the majority of the respondents were interested in the environment. Girls were slightly more interested than boys. Results from the parental questionnaires suggest that over half the parents were 'very interested' in the environment. While the parental sample is potentially skewed in favour of those who are environmentally concerned, it is interesting that not only is there no connection between parent and child interest in the environment, but that there are no findings where children are more environmentally-interested than their parents. This is surprising given that young people are often described as 'the future' and portrayed as having more environmental knowledge and interest than the majority of adults.

All respondents acknowledge the existence of both local and global environmental problems, and many have rated them as serious. The most serious local issues were litter, dog dirt, traffic and wildlife in danger. Boys overall thought that wildlife in danger was the most serious local issue whereas for girls it was litter. Despite the local context, these findings are very similar to much larger survey findings of concern.

Global environmental issues were consistently rated as serious problems by the group. The most serious global issues were ocean pollution, the hole in the ozone layer, unclean drinking water and animal extinction. The mass media undoubtedly play a part in promoting awareness of global environmental issues. For boys, the most serious concerns were shared between ocean pollution, animal extinction and rainforest destruction. All of the boys thought these three issues of very serious concern. Girls however thought that the most serious issue was ocean pollution, followed secondly by the hole in the ozone layer, then animal extinction and human starvation.

Data on the causes, potential solutions and solvers of environmental problems suggest a complexity of approaches. In the questionnaire, 'all of us' was the predominant response to the question of who should help. However, in focus group conversations and individual interviews, a more complex picture emerged with some emphasis on the council and the government as having the ability to act effectively even if they do not seem, in the minds of most of the research group, to

put their power into practice. These organizationally based suggestions of responsibility and solution contrast to those made in Gauntlett's (1996, 1997) research. Gauntlett noted that in the videos made by the young people in his research, "responsibility for environmental damage was seen to lie with individuals, rather than companies ... or the government" (1996:139).

Government action was generally considered with scepticism by the respondents in this research. This is in keeping with research of 8-14 year old young people in Norway by Sørgaard & Lyngstad who note:

> "almost all of them meant that environmental problems could be solved if politicians decided to, but they expressed little confidence in politicians' and adults' ability or willingness to take action" (1994:16).

In the reasons written in the questionnaire of why those issues considered most serious occurred and what could be done to prevent it, local problems were noted to happen because individuals are careless, or, more philosophically, because of human weakness. No government or institutional causes were mentioned here, although I believe the frequently used phrase 'people' in all the written responses may express action beyond the individual realm.

There was much focus on individuals causing global environmental problems through greed, stupidity or thoughtlessness. Here it was suggested that local problems could be solved by creating rules and penalties for environmentally-damaging behaviour, changing this behaviour, education, and by correcting the damage. The solutions focused on what actions people themselves could do to help, coupled with rules and regulations. For these issues there seemed to be slightly less inclination to think that groups at a wider social level should do something.

There was an overall feeling of helplessness and inevitability about environmental problems. Even potential public demands for action such as marching, signing petitions or the activities of pressure groups were not seen to accomplish much. Many of the group were not even clear as to the type of activities undertaken by pro-environmental pressure groups. This may reflect the structured constraints of political or social action amongst young people. Furthermore, as *Chapter 1* outlines, Furlong & Cartmel (1997) suggest that although people may be equally concerned and be from similar socio-economic backgrounds, such connections are hidden in

late modernity leading to a perception of individuality at the expense of collective action and consciousness.

The future was seen in a wide variety of guises, but slightly more of the boys than the girls saw it pessimistically as having worsening environmental problems. There was a slight tendency for the focus groups to promote a stronger group statement of worse case scenarios. Parents thought that environmental issues in the future would worsen to a greater degree than the young people. The parents who imagined a grim future were predominantly those who were 'very interested' in the environment.

This chapter has shown that the young people in this research are in the main, interested and concerned about the environment. They offer a complex set of causes and responses to environmental issues. On the one hand they suggest, following much of the media rhetoric, that we all should be involved with preventing and ameliorating environmental issues. On the other, they recognize the power of government and other institutions and organizations to act effectively and combine this with a scepticism that it is not in the government's interest to act quickly. Finally, without effective political action, the environmental future is envisioned by many of the respondents in a downward spiral.

CHAPTER 5
GENDERED ENVIRONMENTAL VIEWS

As *Chapter 4* indicated, there are some gender differences within the group that I studied. This chapter will assess the data further for gendered responses by looking at the work of Gilligan (1982/1993). Can Gilligan's theory of gendered morality explain and predict how girls and boys respond to environmental problems? I was interested to learn whether there were gendered expressions of environmental interest in relation to: the level of concern; the type of solutions suggested; where in the world they felt a responsibility towards; how they talked about animals, nature and humans; and whether they saw different planetary species as equally matched or placed within a hierarchy.

Gilligan (1993), suggests that girls and boys have different moral reasoning capacities: girls' reasoning maximizes care of those involved, while boys' reasoning emphasizes rights and the application of rules. If Gilligan is correct, then boys and girls should have very different rationales for being environmentally concerned and active. At the most basic level, this theory would tend to suggest that women are more likely to be environmentally engaged than men. As Auerbach et al sum up:

> "Female moral characteristics of interconnectedness, nurturance, and the emphasis on responsibilities to others are seen as reminding us of the next generation, our relationship to nature, and the shared interest we all have in preserving human life" (1985:158).

Is this indeed the case? Are females more likely to relate to the environmental crisis with a sense of care and connection? Will males express environmental concerns more in terms of the principles and rules of saving, for example, endangered species?

Although Gilligan suggests that, "moral problems are problems of human relations" (1993:xix), they increasingly need to be thought of with a wider planetary scope

because of the species-wide effect of human created environmental degradation. This is already being incorporated by some groups, for example, deep greens and animal rights supporters, who include in their morality, responsibility to the non-human members of the living earth, believing that the world is an interconnection of all that is living and that by affecting one part you are affecting all parts. As will become clear in the course of this chapter, this system of interconnection would fit well with Gilligan's theory of how girls and women deal with moral situations by thinking in webs of contextualized connections, rather than in a ranked hierarchy of categorical and independent problems, as would men according to the theory.

Furthermore, Gilligan's theory has great implications for the tackling of environmental problems as the two different ways of thinking would lead to very different solutions:

> "Thus it becomes clear why a morality of rights and non-interference may appear frightening to women in its potential justification of indifference and unconcern. At the same time, it becomes clear why from a male perspective, a morality of responsibility appears inconclusive and diffuse, given its insistent contextual relativism" (Gilligan, 1993:22).

The implications are made apparent by Auerbach et al who note that:

> "although male moral development explains how we got to the current life-threatening state of affairs, female moral development tells us how we can (and must) break out of it" (1985:158).

GILLIGAN'S DIFFERENT VOICE

Gilligan's work marks a distinct break with previous psychological theories of human moral development. She challenges the work of previous scholars who, without using female subjects, have isolated elements of male moral development and universalized theses findings to the whole of humanity. For example, Kohlberg, (1981) established a series of stages of moral development (see Appendix 5) in the young which he devised from longitudinal research with a group of boys over a period of 20 years. Kohlberg postulated three development levels of six stages. The first level is characterized by following rules to avoid being punished (Stage 1) or because it suits one's own interests (Stage 2). Level 2 is distinguished as acting because of others expectations of you (Stage 3) or following basic social rules and laws (Stage 4). Stage 5 in Level 3 is reached when an individual acts in terms of principles critically developed by society. Stage 6 "transcend(s) the agreements of a

given social contract. They are universal principles of justice, of the reciprocity and equality of human rights, and of respect for the dignity of human beings as individual persons" (Hersh et al, 1980:132-3).

Kohlberg found that most males do not get beyond Stage 4: the development of a focus on laws to solve moral problems. When girls have been studied using his schema they generally only achieve Stage 3 which is represented by 'seeking approval' from others when making decisions. Through this schema, girls are deemed to be morally inferior to boys. This is problematic because as Gilligan notes:

> "...as long as the categories by which development is assessed are derived from research on men, divergence from the masculine standard can be seen only as a failure of development" (1993:70).

Gilligan argues on the basis of her research[1] that women develop a different way of moral reasoning to men. She found that when she spoke to women about moral questions their responses did not neatly fit Kohlberg's developmental schema. However, rather than interpreting these findings as females being less morally developed than males, she sought to isolate the differences and redefine the developmental schema. For Gilligan, girls are not less moral, their reasoning is simply outwith Kohlberg's scale, and thus the scale, not the girls, is inadequate.

Gilligan believes that faced with a moral dilemma, men will reason in abstract concepts of laws and principles, whereas women tend to think about each individual situation, contextually, aiming to minimize distress for all involved. These two different ways of moral reasoning have been termed the 'concept of justice' and the 'concept of care.' Gilligan (1993) observed that in a research situation having been given hypothetical moral problems to solve, men would think abstractly, whereas women would always try to find out more information regarding the situation to help them solve the dilemma:

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[1] Three projects are given in 'In a different voice' as evidence to support her argument: 1) Researched 25 women when they were university students and then five years later. 2) Researched 29 women considering abortion. 3) Researched 144 men and women, divided and matched into groups of 8 for factors such as age, class and occupation. Questions related to ideas about moral behaviour and beliefs.

> "The moral imperative that emerges repeatedly in interviews with women is
> an injunction to care, a responsibility to discern and alleviate the "real and
> recognizable trouble"[2] of this world. For men, the moral imperative appears
> rather as an injunction to respect the rights of others and thus to protect
> from interference the rights to life and self-fulfillment"(Gilligan, 1993:100).

Even at an early age, girls are solving problems in different ways to boys. Gilligan highlights this using Janet Lever's (1976) work which showed how boys and girls used different reasoning to resolve playground game disputes. Here, boys are fascinated by the rules of the game and will negotiate, should any disputes arise. Girls, on the other hand, tend to finish the game rather than negotiate, avoiding the possibility of falling out between friends (Gilligan, 1993).

Gilligan suggests that girls and women are implicitly taught to think in terms of others before they think of themselves:

> "This psychological seclusion of girls from the public world at the time of
> adolescence sets the stage for a kind of privatization of women's experience
> and impedes the development of women's political voice and presence in the
> public world. This dissociation of girls' voices from girls' experiences in
> adolescence, so that girls are not saying what they know and eventually not
> knowing it as well, is a prefiguring of many women's sense of having the rug
> of experience pulled out from under them, or of coming to experience their
> feelings and thoughts not as real but as fabrication" (Gilligan, 1993:xxii).

Thus, the theory posits that strong social expectations begin to override women's own individualism, moving them away from the public sphere into private caring roles.

In later work, Gilligan et al (1990) have built these findings into three developmental stages. In the first stage, which is experienced by girls between the ages of 7 and 10, Gilligan suggests that girls are free and confident in making assertions. Around the age of 11 they start to respond to different gender relations found in "expressions of anger, compliance and power" (Muuss, 1996: 209). Later, in adolescence, they start to restrain their own voice and respond to the way they perceive that they should speak, causing a loss of confidence and power whilst maximizing connection by trying to please others. This leaves women in an endless paradox of how to do things for the best and for whom. Hence:

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[2] This phrase is from Diane, a research participant. See Gilligan (1993:99).

"The 'good woman' masks assertion in evasion, denying responsibility by claiming only to meet the needs of others, while the 'bad woman' forgoes or renounces the commitments that bind her in self-deception and betrayal. It is precisely this dilemma - the conflict between compassion and autonomy, between virtue and power - which the feminine voice struggles to resolve in its effort to reclaim the self and to solve the moral problem in such a way that no one is hurt" (Gilligan, 1993:71).

GENDERED OR THEMED?

Gilligan is careful to suggest that her findings are not totally gender bound - that in fact men are capable of making moral judgments from the care perspective.

"The different voice I describe is characterized not by gender but theme. Its association with women is an empirical observation... But this association is not absolute, and the contrasts between male and female voices are presented here to highlight a distinction between two modes of thought and to focus a problem of interpretation rather than to represent a generalization about either sex" (Gilligan, 1993:2).

However, despite these assurances, she spends the rest of the 1982/1993 book talking in terms of male and female, creating a blanket of gender which smothers any intended greater subtlety in the application of gender neutrality in the care and justice 'theme' (Gilligan, 1993). Indeed, in her later work (Gilligan & Attanuuci, 1988; Gilligan, Rogers & Tolman, 1991) she suggests that different moral voices are experienced by both men and women simultaneously but that women tend to use the care voice and men the justice voice. This is described by Gilligan as the "focus phenomenon" whereby people focus on one perspective only when making moral decisions:

"Gilligan argues that the two moral perspectives are grounded in different dimensions of relationships that give rise to moral concern. Justice and care...are not mirror images but, rather, different ways of organizing the basic elements of moral judgments...Moral problems are thus not resolved by balancing justice and care but by taking one perspective rather than the other" (Hekman, 1995:9).

Moving beyond gender, Hekman (1995), writing from a postmodern feminist perspective sees the import of Gilligan's work more distinctly as a challenging the modernist notion of a true universal morality, replacing it with the link to contextualized subjectivity, and in so doing, extending it beyond gender:

"That our society possesses a hegemonic moral discourse seems indisputable; that this discourse is the "justice voice" that Gilligan identifies is also clear. What Gilligan argued is that there is another, "different" moral voice that the hegemonic voice has silenced. I have extended this argument to theorize a multiplicity of moral voices constituted by race, class and culture, as well as gender. Moral voices are connected to moral persons, persons who are concrete rather than disembodied. To have a moral voice is to participate in a common discourse, to embrace a form of life" (Hekman, 1995:163).[3]

WHY DO DIFFERENCES DEVELOP?

Gilligan does not offer a clear indication of why different voices develop with which to quell accusations of essentialism directed at her theory. She merely set out to explain an inductively deduced, empirical finding of different voices, rather than to explore the cause of the voices. Countering her critics, she suggests, in the new introduction to the 1993 edition of her book, that the cause is undeterminable:

> "I find the question of whether gender differences are biologically determined or socially constructed to be deeply disturbing. This way of posing the question implies that people, men and women alike, are either genetically determined or a product of socialization - that there is no voice - and without voice, there is no possibility for resistance, for creativity, or for a change whose wellsprings are psychological" (Gilligan, 1993:xix).

For Gilligan (1993) different styles of moral reasoning begin to emerge from early childhood experiences. She links it with Chodorow's (1974) notion of 'separation'. Here, the common parenting of children by the female parent creates, for young male children, a feeling of distinction and difference to their parent, in a way that does not happen to young girls, who continually experience their mother in the same way, and feel a special linkage with her. Whilst Gilligan (1993) sees parental influence as important, she also notes the ongoing social inequality experienced by the majority of women as having an impact on both their silenced voice and the lack of social respect in the function of their care giving. However this is only briefly touched upon, leaving early childhood familial experience as an unsatisfying major explanatory source of different voices.

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[3] While Hekman's extension seems appropriate to creating a fuller explication of human morality, she provides an over-reading of Gilligan making connections where they possibly might not be made by the author herself. For instance, when previously critiqued for overlooking the fact that women often lack social power (Kerber, 1986), Gilligan notes that her work has looked at a variety of social and ethnic groups (Prose, 1990). Thus, if this is the case, then Hekman cannot safely argue for inclusion of race and other social groupings *on the basis* of Gilligan's work.

Obviously the analysis should not be left here, for it suggests homogeneous family forms and parent-child relationships. Young people receive a wide variety of information which might socialize them into gendered responses. As James mentions:

> "Becoming a boy or a girl is not simply a matter of responding to biology, nor yet one of donning a ready-made identity as male or female. Rather... it is more a process of discovering, confronting and experimenting with the gender stereotypes embedded within particular cultural practices. In this the 'culture of childhood' is pivotal, a fact often ignored in discussions of gender-role acquisition. There is still a tendency to assume that it is just adults whom children are observing or copying in the socialization process, forgetting that older children in the playground or siblings at home also loom large in children's social relations. They may also, therefore, play a significant part in the shaping of gender identity" (1993:185).

Furthermore, pressures to conform to a stereotyped feminine 'caring' image continue throughout women's lives. For example, women predominantly work in caring roles whether this is in paid or unpaid work. This has not arisen because of women's choice to affirm their natural 'different voice'. Instead it is a whole package of implicit and explicit social pressures at every level of society.

CRITIQUE OR ACCEPTANCE?

Gilligan's theory is welcome in that it is a challenge to a patriarchal theory that undermines women by making them seem inferior (intellectually and otherwise) to men. However, rather than seizing the opportunity to appreciate, theoretically, the complexity of influences on our behaviour and views, she instead chooses to build a model, albeit one for women, which again places them, like Kohlberg did, into a universal category of how they will think and act.

Some critics argue that Gilligan did not study enough men (Luria, 1986)[4]. Others say that her critique of Kohlberg's developmental schema fails to acknowledge that

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[4] Her work is also lacking in empirical findings. Often in "In a Different Voice" assertions are made and supported by evidence from just a few cases to support the whole theory. I do not know if she is using her data illustratively as an example of the rest of her data, or that she has no more data, or that she is selecting data to fit her theory. Additionally, you often feel that she is rather liberally forcing her theoretical framework into her data rather than questioning the parameters of her categories. For example, she reports the response of a woman college student to the question "If you had to say what morality meant to you, how would you sum it up?" as, "A truly moral person would always consider another person as their equal. In a situation of social interaction, something is morally wrong where the individual ends up screwing a lot of people. And it's morally right when

other studies have placed women on higher Kohlbergian levels (Greeno & Maccoby, 1996). Fuchs Epstein (1988) suggests that Gilligan has overstated both the psychological origin of the differences and the use of gendered categories to suggest distinct experiences:

> "No aspect of social life ... is free from the dichotomous thinking that casts the world in categories of 'male' and 'female.' All societies, from the most primitive to the most modern, use sex as a convenient and preferred attribute to differentiate members of the human race, dividing work and the pleasures of social life into men's and women's roles. Invariably, this has invited invidious comparisons" (1988, 232).

This point is also made by Auerbach et al who question Gilligan's narrow selection of gender as socially stratifying:

> "Gilligan used an extremely small, selective sample for that study, and she does not provide readers with a breakdown by class, race, religion or ethnicity. This is an essential omission, because such variables may be more important than gender in distinguishing patterns of moral decision making - particularly in the case of abortion....The result is that Gilligan attributes all the differences she does encounter to gender" (1985:155).

I also agree with Auerbach et al (1985) that it is odd that Gilligan has chosen such a uniquely female experience as abortion to test her theory, rather than selecting a more gender neutral topic. Whilst a father may feel as, or even more, upset than a mother by the abortion of their child, fathers are not situated and constructed within the social context as mothers are, even temporarily. They have not, for example, been through adolescence with the same constraints on their sexuality: the acute worry about pregnancy and the social foreboding commonly made about young unmarried mothers. Furthermore, although fathers may lose a child through abortion, this will not threaten their physical health or risk their ability to bear

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everyone comes out better off" (Gilligan, 1993:64). Immediately following this the same student is asked to name someone who has exemplary moral behaviour. She names Albert Schweitzer giving the reason "...because he has given his life to help others." Gilligan then interprets all of this as "Obligation and sacrifice override the ideal of equality, setting up a basic contradiction in her thought" (Gilligan, 1993:64, my emphasis). I find this analysis extremely problematic. Gilligan is far too willing to reinterpret what has been said as the latter being the stronger response. It is as if, rather than listening to the voice of her speaker, she is listening, prescriptively, to her own theoretical voice. Furthermore, rather than seeing the 'contradiction' as merely a sign of thinking through things whilst speaking or of responding to questions rather than speaking freely in her own time, Gilligan automatically assigns the contradiction into the paradox of different voices. Perhaps if the analysis was better supported by the data then she could get away with such glib assertions.

children in the future. Ultimately, the gendered principles which Gilligan draws out of her data seem to be irreconcilable: how can issues such as concern for one's child be compared to reasoning about distant or abstract moral issues? Even acknowledging the time-space distanciation of late modernity which unites people who are spatially distant from one another (Giddens, 1991), there is no corresponding collapse of differential moral reasoning or a change which enables one to consider scenarios which are distant and/or require abstract moral reasoning and those which entail reasoning within contextualized care situations.

GILLIGAN SUMMARY

Gilligan's challenge to the unitary 'male stream' notion of Kohlbergian developmentalism is important, and it empowers and circulates a different focus of moral reasoning. However, Gilligan's broad brush of gendered moral responses is problematic. The way we reason about moral issues is too complex to be split so easily into care and justice principles. Thus, rather like Kohlberg's stages, albeit to a lesser degree, women are still located in caring roles. Indeed this theory positively supports caring roles as natural while men are portrayed as de-emotionalized robots.

Gilligan has claimed to have found gendered care and justice voices in different socio-economic and ethnic groups (Prose, 1990:38). However, I am not convinced of the cross-cultural nature of the voices because morals are, to some degree, socially constructed by each cultural and ethnic group, rather than being some universal existing set of norms and standards.

Furthermore, principles are not always easy to follow in reality. Given a hypothetical dilemma it is much easier to answer in principles. In a real situation, men may reason far more in relation to their own connections than Gilligan has given them credit for.

My data analysis has focused on the following differentials abstracted from Gilligan's theory:

TABLE 5.1
Summary Of Gilligan's Different Voices

Males	Females
Rights	Care and Responsibility
Fairness and balance	Inclusion
General and universal	Specific and Individual
Categorical	Contextual
Hierarchy	Web
Independence	Affiliation.

However, this table is really a guide more than a clear dichotomy of gendered thinking. I think people will generally fit onto some part of a continuum between the two extremes. In addition to this, some of my data on 'value' and 'moral' responses to the environment are not appropriate to try and accommodate Gilligan's theory, partly because my research was not Gilligan-centred, and partly because of the low numbers of respondents.

APPLYING GILLIGAN'S DIFFERENT VOICE TO MY DATA

In this section I make connections between the data and Gilligan's theory. For some of the data, this connection is difficult or indeed impossible to make. I could simply state that girls were indeed slightly more interested in the environment. But what does this prove?

In the listing of global issues, boys were more concerned about the extinction of animals, whereas girls were more concerned about their ill-treatment. Here there could be a case made for the difference in 'justice' versus 'care' reasoning between boys and girls. Thus, boys could be reasoning in terms of rights and universal principles and girls could be thinking in care terms of minimizing hurt. On the other hand, following Gilligan's schema, girls should perhaps be more concerned about extinction than they actually are in order to maintain wider connections.

SHOULD WE BE CONCERNED ABOUT DISTANT ENVIRONMENTAL PROBLEMS?

As *Chapter 4* detailed, I asked whether the young people in my study thought that we should be concerned about environmental problems that are distant from us. The results do suggest some level of gendered response to this question. The greater

number of people who decided that we should be concerned about distant problems were girls (Ruth, Wendy, Caitlin, Belinda, Mary). For example, Belinda suggested that we all should be concerned about the rainforests:

Belinda	*Erm/ the rainforests/ cos/and/erm/cos/ like you see on TV almost everyday more trees falling down in the rainforest more animals homeless and things like that /*
SCG	*and do you think that's a problem we should be/ in this country should be worried about or should it be?*
Belinda	*I think everyone should be worried about that one*
SCG	*ahha/ I mean do you think it affects us here?*
Belinda	*No not really but it should because /we're all /one /part of the world and so /we all should be worried about it*

The male exceptions were Arthur, the only boy who is 'very interested' in the environment and Johnny, who spoke hesitantly 'yes' for concern in the individual interviews and a provisory 'No' in the focus group. His proviso was that we should not become concerned unless no-one else is concerned. He seemingly reasons in ways that can be considered both principled - not to do anything unless others are picking it up; and contextually - using the idea that in each case the response from others could be different.

The 'No' responses were predominantly from boys (Johnny, Brian, Steve, Nicholas, James, Ian). For example, Steve, when asked if we should be concerned about problems elsewhere in the world, said, "I think we should let them because we've got enough to worry about here." Two girls, Kelly and Carol responded 'No.' Kelly is the only girl to be 'Not very interested' in the environment. When Carol was asked if we, in this country, should be concerned about the rainforests she responded "not really cos it's not in our country. It's the other country's government that has to sort it out." This would, like Johnny's response above, point to both forms of reasoning being used at different points - here she is reasoning following the principle that it is an already designated responsibility - elsewhere, as this chapter details, she reasons more in keeping with the care principle. The examples of both Kelly and Arthur suggest that level of environmental interest overrides gendered responses to environmental issues.

Ian, after giving a 'No' response in the individual interviews, said 'don't know' in the focus group and was the only one to answer in his group. Similarly, James gave two different responses. In the focus group he gave a definite 'No' saying that it was not our problem, but in the individual interview he said that it was dependent upon the

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issue. Thus, he appears to be both using a universal decision in the first decision and hierarchically prioritizing, yet in a contextual fashion, the second decision.

WHO SHOULD HELP?

Responses about to whom the respondents entrust the responsibility of solving or mending environmental damage connect with questions of 'who should help' asked in the questionnaire and expressed during the focus groups and individual interviews. Bearing in mind the 'different voice,' we would expect girls to see everyone, including themselves, as responsible, and boys to idealize the government through fair rules and procedures as those who are accountable.

The questionnaire revealed that although the majority of the group thought that we all should help environmental problems, girls were more likely than boys to opt for an 'all of us' response, which would, in some small part, support Gilligan's thesis. However, as I noted in *Chapter 4*, institutions and governmental groups are also named as sources of environmental help, particularly in the focus groups.

Institutional support was suggested in the focus groups and individual interviews by both boys and girls. However, those who did respond that 'everyone should help' were all female (Carol, Belinda, Ruth, Sarah) apart from James who reasoned 'everyone' because of the lack of action by the government. Thus, there is a case to be made that here, the female voice of 'everyone' to solve environmental problems is in keeping with Gilligan's notion of webbed rather than a hierarchical moral reasoning.

Thinking about notions of hierarchy and web, where males tend to think hierarchically and females within a web of connections, it is interesting to note that some use both lines of reasoning at different points. Thus, while Arthur used 'care' reasoning earlier, when asked who should help environmental problems he clearly used hierarchical thought by responding 'the Prime Minister', and then 'the Queen.'. Carol spoke of people working together at one point, but at another point said that local problems, such as litter are the responsibility of the council, and the US desert, the responsibility of the US government, suggesting a blending of moral thought. However, in support of Gilligan's thesis, Ruth spoke of everyone "Sticking together." Belinda responded "everyone...children, adults, the government, everyone." Overall,

these findings imply that while some of the issues would seem to support Gilligan's thesis, others do not.

ANIMALS AND PLANTS

I asked in the individual interviews whether the respondents thought that people should value animals and plants as much as they value human beings. There were few responses to this question. Of those who did respond, it was more often with an 'ahha' rather than a discussion of their reasoning (Carol, Belinda, Johnny, Steve, Suzanne). The other responses that were given were: Arthur who replied, "just the same"; and James who responded "I'd say probably the animals are/ but not the plants"; and Caitlin who said "Well everything's important in the world// and we need the worms and everything to help the plants grow" and Carol who responded with an empathetic comment rare in all the responses:

SCG	*I mean do you think that / plants and animals are as important as human beings or*
Carol	*Uhhuh*
SCG	*Yeh*
Carol	*Cos / if we were plants we wouldnae like to get destroyed*
SCG	*=huhuh*
Carol	*(&) Cos they just feel the same that we do if we got stood on we wouldnae feel very /happy*
SCG	*=Right*
Carol	*(&) so they wouldn't either*

This seemingly empathetic reasoning appears to be aimed at trying to reduce hurt but just as equally, it could be argued that it is principled reasoning taking universal human rights and applying them to plants. This confirms that people do not reason within one particular moral framework. For example, earlier, Carol seems to be reasoning using justice principles of fairness and balance, by saying that we should be concerned about the problems here, and that trees need to be cut down for paper. In Carol's case I do not think, as Gilligan might analyze, that she is confused, answering with the two voices. Ultimately, this variance of reasoning exposes the complexity of thought, and how categorizing people into one voice or another is not so easy.

Similarly, when discussing animals, James thought that the rainforest should not have roads built through them, but this was more to prevent animals from being killed or losing their habitats. Later in the interview when asked about whether animals should be given their place when humans make decisions which will affect

them, he said "ah I don't know, I don't really think about endangered animals or that but I think of my own dog." Thus, the issue for him was a reflection of his own responsibility for and relationship to his pet, to the exclusion of the seemingly distant endangered species. This type of reasoning is again varied and would, in part, invert Gilligan's thesis because James seems to be reasoning with a care ethic by caring primarily for his pet rather than thinking in broader terms.

There was some discussion of animals as pets which contrast to James' 'othering' of animals beyond his own pet. Carol, in the focus group, included all animals in her discussion of caring for animals, because of her own pets, "and like you've got / you've got your own pets so /if you killed another animal /it would be like destroying all animals." This is again showing a 'Gilligan-esque' connected and empathetic web although again there is also the possibility of arguing it from the justice point of view with regards to the expression of a fair and universal principle.

In the individual interviews I asked a hypothetical question about what the respondents would do if they were put in charge of building a new road which had to be built in a particular spot. Whilst the road was really needed by the local residents, by building it, a forest would have to be destroyed and in the forest there lived a very rare species of bird. I asked the interviewees what they would do faced with making a decision on this dilemma. There was complete support for the bird and the forest over the road. I asked them a follow-up question about whether they would build the road if they knew that the bird could be placed in a zoo and so would survive the forest destruction. This was supported as a complete solution by one person (Caitlin). Ian thought that another location should be found for the road and that the forest should remain intact. Two people (Ruth, Nicholas) thought that the road should not go ahead; Ruth expressing concern that the bird might not survive in the zoo. Others altered the narrative by suggesting that the bird could be moved to a different part of the forest (Suzanne) and that you could place the bird in the zoo temporarily whilst finding it a new home (Steve). Steve's response suggests that it is not only girls who, according to Gilligan, alter the narrative of a moral dilemma to try and find a suitable response.

Overall, no-one questioned whether other species might be in danger, whether even living close to the road would destroy the habitat of the bird. The need for the road was also not challenged. Zoos were not seen as a solution in all but one of the responses, thus necessitating natural habitat to be preserved.

FUTURES

As outlined in *Chapter 4*, boys and girls responded with similar forecasts of the future although boys were slightly more pessimistic. Some boys did suggest that inventions could potentially save the planet. Three girls suggested that some problems would get better and some would worsen. This could support Gilligan's thesis that girls tend to think contextually, looking at each individual case rather than making a statement which applies to one and all of the environmental problems.

In the second series of focus groups I asked if environmental problems worsen will people be more friendly and co-operative with one another, or will they become angry and hostile? At the end of the documentary there were scenes of refugees and the army. Sir Crispin Tickell, former British Environmental adviser to the UN, suggested that the real problem would be the distribution of scarce resources in times of environmental crisis.

When looking into the data on whether people would co-operate or fight in an environmentally-damaged future, one would envisage using Gilligan's schema that girls would be more inclusive and boys would be more individualistic, expecting hostility. This indeed was the finding. All of the 5 people who said 'hostile' were male (Darren, Steve, Ian, Kenny, Johnny). Although Johnny said hostile, when asked why by another group member he said he said it because it was a longer word! Kelly thought it could go either way. Of the 4 people who said 'co-operative', three were female and one was male (Alison, Beth, Arthur, Carol) Arthur, the only boy in the group who is 'very interested' in the environment, stands out here again.

Carol expressed the need for co-operation by comparing it to the Second World War - a topic they were doing a project on in class.

> Carol   *"They probably go back to like what they done in the war/ they'd*
>   *have to like stick with each other/ and that was it...so that's what*
>   *we'll have to do if it ever happens to us...but we'll not be here in a*
>   *hundred years so (...) that far."*

This statement was made to the derisory amusement of Nicholas who responded "you sound like you're 35" (Group Laughter) and continued, "She sounds like she's 35 /she goes 'got to stick together.' "

CONCLUSION: IS THERE A GENDERED ENVIRONMENTAL MORALITY?

The work of Mohai (1992), outlined in *Chapter 2*, suggests that women are more likely to be concerned about environmental problems closer to home than men are. My research suggests that when asked whether we should be concerned about distant environmental problems the boys were more likely to give responses closer to home than the girls.

It is a difficult task applying Gilligan's thesis to research data. This is largely due to the vagueness of her use of terminology and the examples given in her work through which her categories have emerged. For instance, in my research, Carol spoke of how we should be concerned about all animals because of the care we feel for our own pets. It is difficult to know whether this can be labeled as an expression care or of justice. Similarly, when I asked if we should be concerned about distant environmental problem the girls were more likely to say 'yes' and boys 'no'. Here again, it is hard to know whether boys were acting on principles of justice (i.e. someone else should be in charge) or care (we should attempt to maintain existing connections rather than accepting new ones). This needs to be further explored before we can be certain. For example, it needs to be ascertained whether people are making choices from moral dilemmas rather than asserting what could be done. There is often a feeling that things could be interpreted either way. This is partly the result of the different subject matter and that Gilligan arrived at her theory inductively. This different data might not seem so readily applicable, particularly when the subject matter is distanced from more traditional areas of care and justice. Furthermore, certain responses may be shaped by the group dynamics which may cut across gender distinctions.

In addition to this, a question mark must be placed over what developmental stage the research group would be deemed, by Gilligan, to be at, particularly when in her more recent work (Gilligan et al, 1990) she suggests that it is in later adolescence that silencing of girls voices really starts to occur; at 11, they should still be outspoken. Thus it could be suggested that if girls think in a 'care way' then the theory is proved. If they think in a justice way then, it could be argued, they have not yet silenced themselves. If they respond with both then they are feeling the two voices at once; one in which they appear as a 'good' girl, and one, more individualistic, which will ignore the social pressures that Gilligan suggests silences adolescent girls. Despite these limitations, some of the responses were seemingly

gendered and could be aligned to Gilligan's thesis, but some seemed to invert the thesis, and some were not connected.

Where there did seem to be support for the theory was in some of the few gender differences in environmental concerns, although the degree of difference was slight. Boys thought animal extinction a more serious problem than human ill-treatment of animals and girls thought the opposite. Thus, boys could be thinking within the terms of it being wrong in principle to lose species whereas girls could be concerned to minimize hurt. The questionnaire responses to 'who could help environmental problems', suggested that girls were more likely to respond 'all of us', whereas boys gave a variety of sources for help. This could suggest a greater support for interconnected and web thinking as opposed to Gilligan's suggestion that boys think hierarchically. However this analysis is subverted by interview data whereby both boys and girls suggest institutional responses such as the government and council. Finally, in the discussion of the future, girls suggested that problems would make people more co-operative whereas boys were much more likely to think people would become hostile. Girls also thought that some environmental problems would worsen whereas some would improve. Boys on the other hand did not break down their responses into parts. This would support the case for girls thinking more contextually and boys more categorically.

Some respondents seemingly talk in voices of both justice and care. Gilligan may argue that is because they are having conflicting thoughts based on what has been ascribed to be the right way to think and what is the more natural way of thinking. However, I think these two voices are in fact mutually possible rather than conflicting and that we should not think of different voices but of varying voices that we use at various times. For example, James thought on different levels depending upon the topic. At one point he was concerned about animals' welfare and thought that people should take animal welfare into consideration when, for instance, roads are built. On another occasion, all animals, except his own pet, were excluded from his concern. Thus, rather than seeing people's voices as 'either-or' justice or care, they should be seen as capable of both. Furthermore it should be considered that when people are unsure of things they can talk in many conflicting ways which might not stem from socialization or conflicting voices, but because they are feeling their way around a topic, speaking out loud as they think.

This chapter examines the environmental action and behaviour of the young people taking part in my research. Using data from the questionnaires, the individual interviews and the focus groups, this chapter locates environmentalism in an everyday context.

It looks at pro-environmental behaviour in the home, when shopping, in the community and with friends. There is also an examination of the variety of environmental resources garnered from schools and in youth clubs, and any other sources of environmentalism noted by the young people. As noted in *Chapter 3*, the questionnaire to parents was similar to that which their child had completed, supplemented by questions relating to their children, environmental activism and work. This chapter explores connections between parental activism and their children's pro-environmental interest and action. Towards the end of this chapter, the portraits of four members of the research group serve to enrich the rest of the chapter by providing a holistic overview of these respondents.

SOURCES OF INFORMATION

There is a potentially wide range of environmental education sources: school, peers, family, mass media, multi-media, packaging and advertising, pressure groups, youth groups, and so on. However, surveys have shown that by far the most common sources of environmental information for both adults and young people are the mass media. For example, in research conducted by Wilkinson & Waterton for the Scottish Office (1991), the main sources that adults cited for learning about the environment were television (72%), and newspapers (46%). Similarly, in a British survey commissioned by the Nature Conservancy Council (MORI, 1987), adult sources were reported as 73% television, 26% newspapers, 10% magazines, 6% radio, and just 3% from school, universities and other groups. In a 1987 study

of young people aged between 11 and 16 years old, Gayford noted the main sources of environmental information cited were school and television (Dept. of Environment, 1992:233). It is easy to identify the mass media as sources of environmental information because they are commonly used in our everyday lives, and can portray the environment in ways well beyond the means of other sources. Indeed, the media can provide information on a regular basis even when a young person's family does not. Thus, regardless of family or school interest in environmental issues, the media offer information on a relatively regular basis.

It may well be that other sources play their part in communicating environmental information. Large scale surveys tend to ignore the possibility of other sources which may be implicit, or unrecognized by the respondent, but nonetheless are a source of environmental information. For example, washing powder packaging regularly contains environmental information. While this is probably not a vital source of environmental information, it may well play some part in a complex web of influences and informants.

As Table 6.1 indicates below, the young people in my research, and indeed their parents, reported hearing the most about environmental issues through the mass media, predominantly TV. It is interesting to note how the strength of media sources of environmental information have eclipsed commonly held accounts of the primary socializers such as the family and the school which have so dominated socialization theories. Also, the variety of sources mentioned suggests a potentially complex diffusion of environmental information.

While some of the sources indicated in the table (for example, media, people, and outdoors), are similar to those suggested in Palmer's work (1995) into the formative experiences of environmental educators, it cannot be assumed that young people will respond to the sources in the same way that current environmental educators did when they were young, especially because Palmer's data was collected from the distant hindsight of older people and is not situated in the recent context of environmental concern.

Some environmental information sources may not be perceived, or even received, as such by some of the respondents. For instance, Carol spoke in the individual interviews of chewing gum wrappers which tell you in symbols to discard your used gum into a litter bin. Indeed, the producers of this packaging might not have had the

intention to be a source of 'environmental education' even though their symbol may compound other salient information regarding litter disposal. This would seem to support Stephenson's (1996) view that much of what becomes sources of environmental information may not in fact have been created specifically for education.

TABLE 6.1
Sources Of Environmental Information

SOURCE	CHILD (N=28)	PARENT (N=14)
TV	21	8
Newspapers	11	7
Family and friends	6	2
Radio	5	1
School	5	1
Books	4	-
Magazines	3	-
Leaflets and posters	2	1
Council	2	-
Environmental groups	1	1
Experiencing problem	1	-
Packaging	1	1
"People like you"	1	-
RSPCA	1	-
Sunday school	1	-
Visiting nature sites	1	-

Data from questionnaire completed by the young people and their parents and supplemented by material gathered in focus groups and individual interviews

In the parental questionnaire and the individual interviews with the young people, I inquired whether they would like more information about the environment. At times I felt that this question was received with the sort of suspicion one reserves for telesales callers! In the individual interviews, of the 9 young people who responded, 6 said they would like more information, 2 of these wanting more information on specific issues such as problems in Scotland (James) or sea sewage and safe sea swimming (Steve). Two said they did not want any more information and 1 did not know. Of the 14 parents, 6 said they would like more information, 2 said they did not and 6 were not sure.

There was very little disagreement among parents as to where they thought their children should learn about environmental issues. The majority positively selected all three of the suggestions in the questionnaire: 'parents', 'school' and 'TV'. All but three of the parents thought that all three sources should be used for environmental education. The three parents who did not select all three as environmental education sources did however select school and TV but were unsure about parental responsibility for environmental teaching. [1]

Parents were also asked whether they felt that environmental issues are too controversial to be taught in schools. Only 2 out of 14 suggested that this is the case. One person was not sure. Strangely, these 3 people all positively supported the previous questions on institutional locations for environmental education. This does suggest that while to most of the parents environmentalism is not deemed to be controversial to some of them it is.

EXPERIENCING ENVIRONMENTAL PROBLEMS

Environmental problems appear in our daily lives and to a certain extent become taken for granted through their commonality. However, as Illustration 1 demonstrates, because our own human life span is outwith that of natural time, environmental decay will not appear as obvious to us because we only live for such a short time and have limited senses with which to register physically environmental change.

Although as humans we may not have the capacity to register gradual environmental change, we are aware of some environmental damage to our own bodies. Many people face constant environmental irritation through afflictions such as asthma and allergies. In the research group, Douglas is allergic to certain animals which means that he does not have pets. Young people are often aware of asthma either through having it themselves or knowing someone who does. Therefore media reports (even weather forecasts, which now give warnings of high pollen counts or poor air conditions, have a broader environmental resonance) on environmental

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[1] None of these parents were 'very interested' in the environment: two of these parents were 'slightly interested' in the environment and one was 'not sure'. Furthermore their children are, respectively, not 'very interested' and both the other two are 'slightly interested'.

pollution relating to asthma or allergies are likely to resonate highly for sufferers and those who know them.

Some respondents spoke of direct experience of environmental damage. For instance, in the individuals interviews, Caitlin recounted how pollution in the sea caused her skin to become blotchy:

SCG	*OK//How about at a sort of more general level/are there any particular environmental issues that bother you or that you worry about?*
Caitlin	*Yeah down at Prestonpans the water's all polluted and you can't go in in the summer to have a little swim*
SCG	*Right*
Caitlin	*Last time I went in I come out in big blotches*
SCG	*Really?*
Caitlin	*Ahha*
SCG	*Oooh, and what's /what's causing the pollution*
Caitlin	*Erm / all the people /throwing rubbish and everything on the beach*
SCG	*Right*
Caitlin	*Same with Portobello*
SCG	*Right. And do you think that can be avoided?*
Caitlin	*Ahha/ ma little cousin was thinking about/ getting sponsored to tidy up the beach*
SCG	*Ahha*
Caitlin	*But it would cost too much money*
SCG	*Right///Do you think that there's somebody who should help that problem or?*
Caitlin	*Yeah the Council*
SCG	*Ahha/right/ what do you think they should do?*
Caitlin	*They should /like get volunteers to help them tidy it all up.*

Caitlin's experience can be compared to a more humorous discussion during one of the focus groups about Catherine's mother who went swimming in sea which she later found out was polluted. The dialogue suggests that they know about these issues, and potential solutions:

Catherine	*my mum my mum goes swimming in Portobello Beach and there's big signs saying pollution and everything and she goes swimming in it on Portobello Beach its on the news that night and she was going aye I'm gonna end up being erm yellow, bright yellow, in the morning*
	Laughter
Suzanne	*it was in the papers and on erm the telly about the pollution in the water*
James	*they might be clearing it up*
SCG	*right*
Suzanne	*(&) and the dangers to the animals*
James	*=it might/they might be erm clearing it up*
SCG	*mmm*
James	*(&) and putting like lifeguard towers on and that and then it would be*
SCG	*what at*
James	*at Portobello*
SCG	*Portobello OK*
Douglas	*but they'd have to clean the water first*
Catherine	*my mum wouldnae swim in it early in the morning*
James	*your mum wouldnae swim in it if it was clean, it's gotta be dirty!*
	Laughter

Some of the young people discussed indirect experience of perceived environmental problems. Rather than direct damage to their own body they can transfer direct experiences, even when they are only visually perceived, and impart them with an environmental risk factor. Ian spoke of pollution in the form of smoke rising out of factory chimneys, which he says looks and smells bad. Steve spoke of two memories whilst going on holiday: one driving away from Edinburgh and passing the power station chimney at North Berwick; and seeing pollution in the sea at Blackpool. Other witnessed environmental problems including: vandalism in the stair of the flat where he lived (Nicholas), vandalism of trees that the young people had planted in the school grounds (Suzanne, Steve) and litter.

SCHOOL

As Table 6.1 indicates, only 5 out of the 28 young people reported school as a source of environmental information. I also asked this question during the individual interviews and in some of the focus groups. In the individual interviews there was talk of a school trip in Primary 6 which linked into a woodland project (Belinda, Arthur). One person also mentioned a project about the seaside (Arthur). Apart from these two topics no other source from the formal curriculum was mentioned.

Environmental education is one of three key areas for development at the school.[2] The policy is to make the pupils aware of their surrounding environment. As many of the pupils live in inner-city areas, the Head Teacher feels that it is important that the school provides an introduction to nature which might not be available at home. The school has also tried to empower the pupils by showing that they can make a difference to their surroundings.[3]

Although the young people in my research were seemingly not receiving much in the way of formal education about the environment, they were beginning to experience the inclusion of environmental foci in the informal curriculum through the changing of the school grounds.[4] These changes were enhanced through the school's connection with both the 'Learning Through Landscapes' project and the Scottish National Heritage's 'Grounds for Awareness' Scheme, both of which have financially rewarded the school for changes planned and made to the school grounds. Before any changes occurred, all the pupils of the school were asked how they would like to see the space of the school grounds used. The Head Teacher reported that the pupils asked for trees, butterflies, areas to kick a ball and play with a bat and ball.

Additionally, there was discussion in the focus groups and individual interviews of the litter patrols that occur at the end of each lunchtime when a group from each class clear up any litter in their designated part of the playground. This clean-up is also periodically rewarded with a certificate given to the best litter patrols. These certificates are displayed around the school with other 'environmental' certificates,

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[2] The school development plan emphasizes the value placed on future environmental eduation in the school. It hopes 'to encourage pupils to value their environment and appreciate the part they can play in its conservation and future development'; 'to involve pupils actively and let them take responsibility for effecting changes in our school grounds'; and to get 'pupils [to] demonstrate wider skills and bring more informed attitudes to the care of our school grounds'; and to 'monitor studies of core themes linked to environmental education.'

[3] The environment has also been used in relation to discipline. For example, when the Head Teacher first started at the school she noticed that a lot of teaching time was being lost because she was having to deal with playground disputes. By pursuing a policy to develop school grounds and through asking the children how they wanted to use the playground and then putting their ideas into practice the children have developed a sense of value and responsibility for their space. In addition to this the number of playground disputes have been dramatically reduced.

[4] Although the Head Teacher reported that the school grounds were now used in the formal curriculum so it is possible more environmental studies are being done further down the school.

for example, for development of the school grounds, which have been won by the school as a whole. Although this type of work does not deal with environmental issues *per se* it does bring into focus the immediate locale of the school grounds and create a sense of pupil responsibility towards their surroundings.

ENVIRONMENTALLY-FRIENDLY BEHAVIOUR AT HOME

The home is a potentially rich source of inspiration for long-term environmental awareness and action. I wanted to know whether the young people resided in homes that were highly conscious of environmental issues or whether no-one in fact ever undertook any behaviour for the good of the environment. As Table 6.2 indicates, when asked who in the home the young people considered the most pro-environmental, a large number lived in homes where no-one was environmental.

TABLE 6.2
Who In Your Home Does The <u>Most</u> To Help The Environment?

No-one	10
All of Us	3
Mixture	3
Brother or Sister	3
No Response	3
Myself	2
Parent	2
Grandparent	1
Don't Know	1

Data from questionnaire completed by the young people

I asked the young people what pro-environmental action was undertaken in their homes. From the 28 questionnaires completed by the young people, 8 said that something was done, 13 said nothing was done and 7 did not respond to the question. In the parental questionnaire (n=14), 7 parents said something was done in their home to help the environment, 2 said nothing was done and the remaining 4 did not respond to the question.

It is interesting that a large number of young people said that 'no-one' did anything in their home to help the environment. Of these 10 people, 8 were 'slightly

interested' in the environment; 1 was 'not very interested'; and 1 'did not know'. Three of these 10 people can be directly linked to the responses given in the questionnaires completed by their parent. For the remainder there is no data as their parents did not respond to the questionnaire. Table 6.3 shows that two of the three (Douglas, Darren, and Alison) parents did report pro-environmental activity.

Table 6.3 highlights the breadth of what is deemed environmental behaviour and the disparity between what two members of a family say happens in their home to help the environment. Only 5 out of 14 family pairs *both* acknowledged that some sort of environmental behaviour was conducted in the home. Of these, only two (Beth, James) of the parent and child responses matched. These two equivalent responses relate to behaviour such as recycling and buying ozone-friendly sprays.

These inconsistencies of report from parent and child seemingly reflect a difference of opinion about what is deemed pro-environmental behaviour in the home, coupled with a lack of knowledge of the undertaking (or intent behind their undertaking) of some sorts of pro-environmental action. For example, for Belinda, putting food out for the birds is environmental, whilst for her mother it is not. Additionally, some behaviour, for instance recycling, must be more obvious around the home than potentially one-off jobs such as insulating the house. As later sections of this chapter will detail, some parental 'activism' extends beyond home behaviour and this in itself may not be obvious to all family members, particularly if there is little discussion about the behaviour. However, discussion does not always lead to an agreement regarding the types of pro-environmental behaviour at home. Of the two young people whose parents reported 'often' having conversations with their children about the environment, Lucy, reported very little pro-environmental activity in her home whereas Beth responded much more in line with her parent.

These contrasts may be enhanced by the questionnaire survey method which often fails to produce full responses. For example, some of the people interviewed individually added to their questionnaire responses. Carol originally said in the questionnaire that nothing was done at home to help the environment. In the individual interviews she reported that she has cleaned the street outside her home and has re-rooted plants found to have been unearthed. Belinda added to her questionnaire response in the individual interview with re-using and recycling materials. Thus, while the questionnaire has indicated a broad range of behaviours,

further data collection from the individual interviews suggests that discrepancies between parent and child self-reports of pro-environmental home behaviour might, in part, be reduced through data obtained from qualitative methods.

TABLE 6.3
Environmental Home Behaviour.

CHILD	NAME	PARENT
Recycle and re-use paper. Use ozone friendly sprays.	Beth	Recycle paper.
Recycle newspapers.	James	Recycle bottles/paper. Buy ozone friendly sprays.
Recycle	Johnny	Children carry litter home with them. Walk or cycle most days. Carry a poop scoop.
Dad picks up rubbish in the street and stops children in the stair from spitting and smoking.	Pamela	Insulate house. Recycle litter and metal.
Send money to Bosnia.	Lucy	Don't burn plastics etc. Recycle bottles, cans, paper etc. Buy environmentally-friendly products. Talk and educate my children on relevant issues.
Keep garden tidy and rubbish free.	Caitlin	Nothing.
Clean streets and gutters outside house. Re-root any uprooted plants. Recycle newspapers and cans	Carol	No response.
Put food out for birds and wild animals. Sometimes recycle and re-use things.	Belinda	Nothing.
Nothing.	Douglas	Use ozone-friendly sprays. Plant trees in the garden.
Nothing.	Alison	Use ozone friendly sprays
Nothing.	Darren	Not as much as I should
Nothing.	Frankie	No response.
Nothing.	Tina	No response.
Nothing.	Kenny	No response.

Data from questionnaire completed by the young people and their parents supplemented by information gathered in the individual interviews and focus groups.

Given that there have been complaints about the young acting as environmental police within the family (Young, 1992), I wanted to know whether young people had ever persuaded their parents to change their behaviour in the house or garden to prevent damage to the environment. The majority (n=11) of parents answered 'no' or 'don't know'. Three did report such persuasion. Two involved smoking - one was asked to stop completely, and did, and another was asked not to smoke in the house. This was reinforced during a discussion with the main research group of young people when I asked what they could do to help the environment, Darren replied "try to get your parents to stop smoking cos that's polluting the air and everything." It would appear that the anti-smoking message has been received by some young people and has empowered them in their home, although the degree to which their parents had to be pressed in this matter is an unknown factor. Lucy's parent felt that although she had not been asked to change her behaviour in any way, the level of environmental awareness in the house was high enough not to need requests for behavioural change, saying "we are all socially aware and equally concerned."

ECO-CONSUMERISM

As *Chapter 1* outlined, the power of consumerism to benefit the planet has been strongly debated regarding the ability of the consumer to make a real difference, and whether eco-consumerism is merely a capitalist diffusory device to avoid making real changes to aid the environment.

Easterling, Miller & Weinberger (1995) suggest, given the fact that young people often persuade their parents to buy certain items, it seems likely that they will use such powers of persuasion to make demands for environmental purchases. With regard to the persuasory power and pro-environmental action of young people at home, I wanted to know whether the young people in my research group were environmental consumers.

Most of the respondents reported that they had not (n=11) asked for or bought any items on the basis of their purported environmentally-friendly attributes. A large number of the group did not know (n=10) or did not give a response (n=3). Of the 4 who had bought or requested environmental purchases, Lucy had got recycled paper and juice cans that can be recycled; Tina had got dolphin-friendly tuna,

Brian had got seeds; and Wendy had got environmentally-friendly sprays and perfume not tested on animals.

I asked parents whether their children had ever requested environmentally-friendly shopping. This question referred not specifically to their child in Primary 7 but to any of their offspring. Five of the 14 parents said that their children had requested things, 7 said 'No' and 2 were 'unsure'. The environmental requests detailed by the 5 parents included harmless washing products and items not tested on animals. One parent wrote that she had been "persuaded not to buy coloured toilet roll because of the danger to marine life, and not to buy tuna because there wouldn't be enough for the dolphins." This answer indicates that people may not always have accurate knowledge of the reasons to buy environmentally-friendly products. One person did not say what it was that her son had requested just that he checked the label on food when out shopping. Another failed to mention what it was that had been requested.

Table 6.4 indicates, a similar disparity between parents and their children occurs in accounts of environmental purchases. However, some of the differences in parental responses may be accounted for in relation to other children in the family.

For both home and shopping behaviour there are limits to what young people can do. For example, they generally do not buy and cook their own food. There must be great difficulties in households when young people refuse to eat beef following the BSE crisis or if they decide they want to become vegetarian. Furthermore, some environmental purchases are more salient to adults than to young people. For example, young people may consider the purchase of unleaded rather than leaded petrol, but they do not have the same direct need to do so as adult car owners.

TABLE 6.4
Environmentally-Friendly Shopping: Child, Parent And Persuasion.

Name	Child Buys Or Has Asked To Be Bought	Parent Buys	Persuaded To Buy By Their Children*
Beth	Recycled paper and cans of juice that can be recycled.	Not sure	Not sure
James	No	Recycle bottles/paper. Ozone friendly sprays.	No
Johnny	No	Ozone friendly products	Checks labels
Pamela	No	Not sure	Harmless washing products
Lucy	No.	No CFC's, environmentally-friendly products - soap powder, toilet roll, re-use carrier bags several times	No coloured toilet roll and no dolphin harming tuna
Caitlin	Not Sure	Not sure	No
Carol	No	Not sure	No
Belinda	No	Not sure	Not sure
Douglas	No	Ozone-friendly sprays.	No
Alison	No	Ozone friendly sprays	No
Darren	No	Environmentally-friendly tuna. Things that are not tested on animals. Things that are made of materials which can and have been recycled	Things that are not tested on animals.
Frankie	No	No	No
Tina	Dolphin-friendly tuna	No	Yes
Kenny	Not Sure	No	No

* This includes all of their offspring and not just their P7 pupils in my research group.
Data from questionnaire completed by the young people and their parents

ENVIRONMENTAL ACTION WITH FRIENDS

One of the possibilities that young people have to act free from the adult gaze is through activities with friends. It seems likely that a friend's environmental interest can spark or build one's own interest. If friends are interested this will add motivation for pro-environmental behaviour and action. With these points in mind, I wanted to know whether there was discussion of environmental issues and possibly types of environmentally-minded action conducted with friends.

As Table 6.5 highlights, despite the potential for action and discussion of environmental issues with friends, the majority of young people did not know whether their friends were interested in the environment, obviously suggesting a lack of discussion about the environment between friends.

TABLE 6.5
Are Any Of Your Friends Concerned About The Environment?

CONCERNED FRIENDS	YOUNG PEOPLE	PARENTS
Yes, Lots	0	3
Yes, Some	9	6
No, None Of Them	3	2
Don't Know	16	3

Data from questionnaire completed by the young people and their parents

Parental responses, also indicated in Table 6.5, suggest that many of the parents have friends who are concerned on one level or another.

Despite the lack of knowledge that the young people had regarding their friends' level of environmental interest, when I asked if they were more or less environmentally concerned than their friends, the majority (n=15) positioned themselves on a par with their friends. No-one thought they were less concerned than their friends. Three thought they were more concerned. Four thought that they were more concerned than some but less concerned than others. Six said that they did not know. It is interesting that although many do not know how environmentally concerned their friends are, a large number think they know how concerned they are relative to their friends' concern.

I wanted to discern whether the young people, when playing with their friends, ever do anything to help the environment or even discussed environmental issues. Six said they had done something, 15 said they had not and 7 were not sure. Of the 6 who reported pro-environmental activities, 3 had cleaned up litter in their local area (Mary, Caitlin, Arthur). Here it is difficult to tell whether these jobs were done of their own free will, or under parental duress, or in exchange for pocket money. Of the others who had been active, Belinda did a play for younger people in her community to get them to stop dropping litter and also created a leaflet with her friend Ruth, also in the class (who did not mention the leaflet), about protecting animals. However, they were having problems in getting the leaflet printed for distribution. Brian talked about planting a tree at school with friends from class. Wendy said that she and her friends had tried to join Greenpeace.

I asked the parents if they ever talked to their friends and children about the environment and environmental issues. As Table 6.6 illustrates, the majority of the sample said that they sometimes talked with their children (n=10). Of the remainder, 2 never talked and 1 often talked to their children about the environment. A similar pattern emerges for talk with friends about environmental issues, although it was slightly more common for the parents to talk with their children rather than their friends.

TABLE 6.6
Parents Environmental Conversations
With Their Children And Friends

Freq. of Talk	With Children	With Friends
Often	2	1
Sometimes	10	9
Never	1	4
Don't Know	1	-

Data from questionnaire completed by the parents

YOUTH GROUPS

There is a limited range of pro-environmental activities that young people can undertake under their own steam. They are not allowed to join political parties and cannot afford to do much in any other capacity. For example, Caitlin, in the individual interviews, reported that she had been a member of the RSPCA but the

fees had gone up to £40 which was just too expensive for her. With these points in mind, I was interested to see what youth groups offered to encourage support for pro-environmental action.

I asked the young people whether they were members of any clubs or societies and whether they had ever done anything about the environment in these clubs. The clubs to which the young people belonged ranged from Scouts (n=4), Girls Club (n=8)[5], Guides (n=2), Football (n=3), Swimming (n=2), Karate (n=1), Photography (n=1), Art (n=1), Youth clubs (n=1). Some people went to 3 clubs but mostly if people were affiliated to a club they were a member of just 1 club. Six people in the class said that they were not members of a club. Three people did not respond to this question.

The data suggest that there is a lack of club discussions and activities about environmental issues. Only 3 out of 19 said they had done something with their club about the environment. Steve had been asked at Scouts whether they should improve the environment. Marie, a member of the Girl's Club, said they had talked about the weather. None of the other members of the Girl's Club reported that they had done anything environmental with the club. Arthur, a member of a photography club, had been asked to take photographs of the environment being destroyed for a newsletter they were making. In the end the newsletter was never completed. Of the remainder of the club members in the research group, 12 said they had not done anything about the environment, and 4 were not sure.

Thus, the youth groups to which people in this research belonged, did little to provide impetus for environmental action. Although some of the clubs do not really have it in their remit to do anything, some which do such as the Scout and Guide Movement, seem to have failed to incorporate much environmentalism into their activities.

None of the respondents' youth groups had really tackled the environmental issues. Research by Hicks & Holden suggests that such leisure groups are few in number. Of the 11 year olds that they interviewed, 90% were not members of groups who dealt with issues relating to global or social problems. However, the level of interest

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[5] This is a club for P7 girls only. I got the impression that some of the girls were 'too cool' for Girls Club. One person wrote that she was in Girls Club and then rubbed it out. It may, though, reflect the informality and flexibility of membership of this club.

held by the respondents and young people in general towards the environment, suggests that a youth group, along the lines of the Scout Movement but focused on the environment, would find strong membership. This conclusion is borne out by a survey conducted by MORI for the Department of the Environment. Here young people, aged between eight and fifteen, were specifically asked whether they would be interested in joining a local environmental club for young people. They found that 48% were 'a bit interested' and 40% were 'very interested' in joining (Dept. of Environment, 1993:6).

PARENTAL ACTIVISM

I wondered if parents[6] who were environmentally active outwith the household might, in turn, inform their children and help create environmental interest. The parental questionnaire asked whether the parents were members of any organizations connected with the environment or nature. Four of the parents were members. One parent was a member of 5 different organizations: Greenpeace, National Trust, SSPCA, Scottish Wildlife Trust, WWF. Of the rest, 2 were members of WWF and 1 a member of SSPCA.[7]

To identify environmental activism, parents were asked to tick from a list any activities they had undertaken in the previous year. The list was developed from a questionnaire devised by MORI's Robert Worcester (1994) and later used by Corrado & Nove (1995) in their Scottish Environmental Survey. In Worcester's schema, environmental activism is signaled by the completion of 5 or more (in a 24-month period) of the activities from a list of 12. I adapted the table by adding certain questions and adapting others, and looked for activism within a 12-month

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[6] As outlined in Chapter 3, the majority of the 14 parents who replied were women. Only 1 was a man. Of the women who worked the majority were employed in caring/catering/sales work. The rest did not work. The men whose professions I could gauge worked in manufacturing and technical disciplines. I was interested to learn whether parents felt that their jobs had changed because of the influence of environmental discourse in the public sphere or directly through legislation or through consumer pressure. I asked the parents whether they felt their jobs had changed. The only man who filled in the questionnaire, felt that the work he did as a self-employed builder, had changed. He reported that they now recycle materials. None of the other parents who completed the questionnaire said that their job had changed although some were uncertain. As so many female parents completed the questionnaire, this question would have benefited the inclusion of a question relating to whether spouses felt that their work had changed

[7] Three of these parents can be placed in the middle class intermediate managerial, administrative or professional socio-economic group and one other can be placed in the semi- and unskilled manual worker category formerly identified as working class.

period. Obviously this table, like the other figures, cannot be statistically monitored to see if the figures are significant but they do allow an enriching of the data on an individual and household basis. They also allow a view of which families are more environmentally-minded and active, allowing a comparison with others in the group.

From the parental questionnaire data, 4 of the parents can be classified as environmentally active. Of these, 2 people had done 5 of the listed activities, 1 person had done 9, and 1 person had done 11. Of the remainder, 1 person had done 4 activities, 3 people had done 3, and 1 person had done 2. Three out of 14 did not tick anything on the questionnaire table which may mean that they had not done any of the activities but it may also mean that they declined to answer.

As Table 6.7 outlines, by far the most common activity for of all the parents was watching or reading about environmental issues through the mass media. This was followed by walking in the countryside. For non-active parents (1-4 activities), the next most common activities involved signing a petition to help environmental issues and recycling household waste.

Some activities conducted by active parents (5+ activities) are similar to those of the less active parents. More active people are involved beyond an individual level, acting at community and/or a political level. Only one of the parents had actually worked on an environmental project. Two parents had thought about what they could do at a political level to effectively register their environmental concern.

I wondered if the activities of parents may predispose their children into environmental activity or interest. As Tables 6.8 and 6.9 indicate, there is nothing that distinguishes those young people who have environmentally active parents and those who do not. The young people, as indicated in both tables, are very interested or not very interested; may or may not undertake pro-environmental action at home; may or may not buy environmentally-friendly goods; have not done any thing with youth groups or are not a member; and their thoughts on the future range from better to worse. The two things that do stand out are that slightly more people with active parents knew if their friends were interested in the environment, and more people who had inactive parents had undertaken pro-environmental action with their friends. It would be worth pursuing these findings in later research to discern whether they are borne out in a larger piece of research.

TABLE 6.7
Parent's Environmental Activities

ENVIRONMENTAL ACTIVITY	ENVIRONMENTAL. ACTIVITIES		TOTAL
	1-4	5+	
Thought about supporting a political party in a <u>national</u> election because of their environmental policy.	-	1	1
Supported or thought about supporting a political party in a <u>local</u> election because of their environmental policy.	-	2	2
Signed a petition to help the environment.	2	3	5
Watched a TV programme or read about environmental issues.	6	4	10
Worked with local community groups to help the environment.	-	1	1
Demonstrated or marched about environmental issues.	-	-	-
Joined or continued to be a member of a political party because of their environmental policy.	-	-	-
Given money to an environmental group such as Greenpeace or Friends of the Earth.	-	2	2
Written to your MP about environmental issues.	-	1	1
Written to your local council about environmental issues.	-	-	-
Avoided buying products from a country or a company because of their policy towards particular environmental issues.	-	2	2
Chosen to use public transport or walk or cycle, instead of the car, to help the environment.	1	3	4
Recycled household waste	2	4	6
Subscribed to a magazine concerned with the environment, conservation, or the Third World		1	1
Visited places where you have learnt about the environment and nature.	1	1	2
Been for a walk in the countryside or along the coast.	5	4	9

Data from questionnaire completed by the parents

TABLE 6.8
The Pro-Environmental Action Of Children With Active Parents

NAME	Env. Interest	Home Action	Env-friendly Shopping	Friend's Interest	Friends Action	Youth Groups	Future
JOHNNY	Not Very Interested	-	No	None	No	Not A Member	Much Worse
BETH	Very Interested	Yes (N=3)	Yes (N=2)	Some	Don't Know	No	Don't Know
LUCY	Slightly Interested	Yes (N=1)	No	Some	Don't Know	No	Slightly Better
DARREN	Slightly Interested	-	Don't Know	Some	No	Not A Member	Slightly Better

Data from questionnaire completed by the young people and their parents

TABLE 6.9
The Pro-Environmental
Action Of Children With Inactive Parents

NAME	Env Interest	Home Action	Env-friendly Shopping	Friends Interest	Friends Action	Youth Groups	Future
CAITLIN	Very Interested	Yes (N=1)	Don't Know	None	Yes (N=2)	No	Much Worse
BELINDA	Slightly Interested	Yes (N=1)	No	Don't Know	Yes (N=2)	-	Worse
PAMELA	Very Interested	Yes (N=1)	No	Some	Don't Know	No	Slightly Better
JAMES	Not very Interested	Yes (N=1)	No	Don't Know	No	Don't Know	Much Better
DOUGLAS	Don't Know	-	No	Don't Know	Don't Know	Not a Member	Much Better
KENNY	Don't Know	Nothing	Don't Know	Don't Know	No	No	Worse

Data from questionnaire completed by the young people and their parents

PORTRAITS OF ENVIRONMENTALISM

The portraits of four young people and their kin outlined below give some context to the issues discussed in this chapter and in *Chapter 4*. These respondents have been selected to represent a range of responses. They work to illustrate the data beyond the overall set of findings for all the respondents towards an appreciation of response at an individual level. These portraits illustrate the complexity and lived social reality of environmental issues. They enable a clear comparison to be made between the environmental concerns, activities and opinions of members of the same household.

Belinda, who is 11, has a younger brother, who is 8, and a sister, who is 1. Belinda is in the highest reading group in her school class. Belinda says she is slightly interested in the environment. At a local level, she sees traffic as a very serious problem that happens "because people are making new and faster cars and people who buy them are going too fast." She feels that we should "somehow try to get the drivers [to] realize that speed can kill or badly injure someone." On a global level she identifies many very serious problems: rain-forest destruction, ozone hole damage, ocean pollution, animals extinction, not enough food and clean water for people, global warming, acid rain, nuclear power, BSE, nuclear and toxic waste, and the ill-treatment of animals by humans. She also identifies the continuing war (presumably in Bosnia) as a very serious global environmental problem. She feels that all of us should help to stop environmental problems.

At her home they put food out for the local wildlife. She and her brother sometimes re-use and recycle things. She hasn't asked for anything to be bought because it is good for the environment. Belinda isn't sure whether her friends are concerned about the environment but says that her friends are about as concerned as she is. With her friends she has put on a play for the younger people in the community to educate them not to drop litter and has talked to them about animals. She created leaflets detailing animals threatened by environmental problems. She did this with a friend from the class on a home computer although she needs one of her parents to photocopy it before it can be distributed. Belinda is also concerned about the state of a local pond which used to contain frogs but it now covered in weeds. She hopes that someone will come to clear it. In the future she thinks that the environment will either stay the same or get worse.

Belinda's mum is aged between 25-34. She is a part-time shop assistant who left school at 15 years old or less and has no qualifications. Her partner/spouse is a full-time painter and decorator. He left school at 16 years old and also has no qualifications. She isn't sure whether her job has changed because of environmental issues. Like her daughter, she is slightly interested in the environment and sees traffic as a very serious local environmental issue. She identifies lack of food and water, nuclear power, BSE, nuclear and toxic waste and ill-treatment of animals by humans as very serious global environmental issues. Although she thinks that we all should help the environment, including those who cause environmental problems, she feels that it is primarily up to the government. Her main sources of information about the environment are newspapers although she receives information via word of mouth and from leaflets.

She says that she does nothing in the home to help the environment and isn't sure whether she or her children have ever 'shopped environmentally'. She sometimes talks with her children about the environment and feels sure that they should learn about it at school and from the media. She does not know whether parents have a role to play in environmental education. She isn't sure if any of her friends are environmentally concerned and has never talked with them about environmental issues. She isn't a member of any organizations concerned with nature or the environment. In the last 12 months she has signed a petition to help the environment, watched environmental programmes on TV and been for a walk in the countryside or along the coast. She feels that in the future environmental problems will get worse.

Johnny is 12. He lives with his mum and dad and his older sister who is 14. He is in a remedial reading group at school. Johnny is not very interested in the environment. He thinks that very serious local environmental issues are: litter, traffic, factory pollution, dog mess, noise and poor quality water. Johnny sees as very serious global issues: rain forest destruction, ocean pollution, dirty drinking water, damage to the desert, global warming, acid rain and nuclear and toxic waste. He thinks lots of different individuals and groups should help the environment.

At home he doesn't talk to his family about environmental issues but is aware that recycling is done. He hasn't ever bought or asked for purchases because they are good for the environment. None of his friends are concerned about the environment and he's never done anything with them which might have helped the environment. He thinks that environmental problems will greatly worsen in the future.

Johnny's mum is aged between 35-49. She left school at 17 and has obtained Scotvec modules. She is not sure whether her part-time job as a nursery nurse has changed because of environmental problems. Her partner left school at 16 and is a full-time car salesman. She is very interested in the environment. She thinks traffic is a very serious local environmental issue and thinks that commuters should stop using local side streets as 'rat runs'. On a global level she thinks that animals becoming extinct, human starvation, global warming, acid rain, nuclear power, BSE, nuclear and toxic waste and the ill-treatment of animals are very serious problems. She thinks that it is ultimately up to all of us to help environmental problems. She receives her environmental information from the TV news and nature programmes. and from the newspapers.

She makes sure that her children carry their litter home with them and carries a poop scoop when walking the dog. She also walks or cycles most days. When out shopping she buys ozone friendly products and her son, Johnny, checks the labels. Her children have persuaded her not to smoke in the house. She sometimes talks with her children about the environment and believes that they should learn about the environment at school, home and through the media. Lots of her friends are concerned about the environment and she sometimes talks to them about it. She is not a member of a nature or environmental organization. In the last 12 months she, and her children, have helped on a local clean-up campaign. She has also watched an environmental TV programme, chosen environmentally-friendly transport over the car, recycled household waste and been for a walk along the coast or in the countryside. In the future she thinks that environmental problems will worsen.

Lucy is 11. She is in a low level reading group in class. She lives with her parents and her 9 year old sister. She is slightly interested in the environment. On a local level she thinks that litter, factory pollution and most of all wildlife in danger are very serious problems. She thinks that animals are in danger because "some people are bad and some people are good." To help this problem she thinks that "you could shut down pollution factories, pick up your dogs mess if you are there," and that "you could stop hunting some animals and let them live their life like us." On a global level she sees very serious issues as: destruction of the rain-forests, ocean pollution, damage to the ozone layer, animal extinction, dirty drinking water, global warming, nuclear and toxic waste and the ill-treatment of animals. She also thinks that wars should be stopped. Lucy thinks that the most serious problem is the ill-treatment of animals by humans and thinks that "people don't look after their animals so they are becoming extinct." Her solution would be to "turn man and woman good." She thinks all of us should help environmental problems.

At home, Lucy says that her family's environmental behaviour is to send money to Bosnia. She says she hasn't ever bought or asked to be bought anything because it is good for the environment. She says that some of her friends are concerned about the environment and that they have about the same level of concern as she does. She isn't sure whether she has done anything with her friends to help the environment. Although she is a member of three clubs she hasn't done anything about the environment with them. In the future she thinks that environmental problems will get slightly better.

Lucy's mum is aged somewhere between 35-49 and works full-time as a social worker. She doesn't feel that her job has changed because of environmental issues. Her partner is a full-time audio visual technician in a high school. They both have university degrees. She is very interested in the environment. On a local level, she does not think any environmental problem is very serious. She thinks that the most serious problem locally is dog mess and thinks that people should be made to clear up their dog's mess or else incur heavy penalties. On a global level, she thinks that many problems are very serious: rain-forests, ozone layer, ocean pollution, animals extinction, starvation and dirty water, desert damage global warming, acid rain, nuclear and toxic waste and the ill-treatment of animals by humans. She believes that "people in general need to change their ideas, principle and priorities [but] how this is done is another story." Although she thinks that many groups should tackle environmental problems she believes that the people who cause environmental problems and the government have primary responsibility. She receives her information from the literature produced by various organizations, from friends who are active in the field, from specific TV programmes and from buying free-range products. Despite this wealth of sources she would like to know more about environmental issues.

Her family undertake many environmentally-friendly tasks in the home: they don't burn plastics, they recycle and re-use, they buy environmentally-friendly products, and she talks and educates her children about environmental issues. The environmentally-friendly products bought include CFC-free items, soap powder and recycled toilet roll. She says that her children have persuaded her not to buy coloured toilet roll because of the danger of bleach to marine life and to buy dolphin friendly tuna. She says that she often talks with her children about the environment and that there is a high level of environmental awareness in the household. She thinks that environmental education should occur at home, at school, and through the media. Lots of her friends are environmentally concerned and she often talks with them about it. She is very environmentally pro-active. She is a member of 5 organizations: Greenpeace, NT, Scottish Wildlife Trust, SSPCA, WWF. In the last

12 months she has thought about supporting a political party in the local and national elections because of their environmental policies, sighed a petition, watched or read about environment issues, given money to environmental organization, written to her MP, avoided products from a country or company because of their anti-environmental policies, recycled household waste, subscribed to an environmental magazine, visited places where you can learn about environmental issues and has walked in the countryside or along the coast. She feels in the future environmental issues will worsen and adds "I think it's going to take several species of animals to become extinct, people dying of skin cancer because of UV rays etc before the danger is taken seriously but by that time it will be too late, the rain-forests will have gone."

Frankie is 11 and lives with his grandparents and his 9 year old brother. He is in an average level reading group at school. He isn't interested in the environment. He thinks that the only very serious local environmental problem is dog mess. At a global level he thinks that rain-forests, damage to the ozone layer, animal extinction, too many people, dirty water, and nuclear and toxic waste are very serious problems. He thinks that the Government should do the most to help the environment.

Nothing is done in his house to help the environment and he hasn't ever bought anything to help the environment. None of his friends are concerned and he has never done anything with them to help the environment. He is a member of Scouts but they have never done anything to help the environment. In the future he thinks that things will get worse.

Frankie's grandmother is retired. Both she and her partner left school aged 15 or younger without qualifications. She says that she is not very interested in environmental issues. Locally, like her grandson, she selects only dog mess as a very serious problem and feels that people should be made to clear it up or else face fines. Globally, she thinks that there are lots of very serious problems: rain-forests, damage to the ozone layer, ocean pollution, animals extinction, people starving and not having clean water, global warming, nuclear power, BSE, nuclear and toxic waste, and the ill-treatment of animals by human. She considers BSE as the most serious of all these problems. She feels that cattle should eat only grass. In her eyes, the people who should do the most to help environmental problems are the people who cause environmental problems. She wouldn't like more information about the environment.

She says that nothing is done in the home to help the environment and she hasn't bought, or been asked to buy, anything which is good for the environment. She never talks to her grandchildren about the environment but does feel that they should learn about the environment at home, school and through the media. She agrees with people who think that environment issues are too controversial to be taught in primary schools. None of her friends are concerned about the environment and she never talks to them about the environment. She isn't a member of any of the environmental organization and has done nothing active towards the environment in the last 12 months. She feels that in the future environmental problems will get worse.

These portraits illustrate the thoughts, feelings and actions of a selection of respondents. They show clearly that a belief in the existence of severe

environmental problems their future worsening, does not presage pro-environmental behaviour. For instance, both Frankie and his grandmother are pro-environmentally inactive despite holding a belief that environmental problems will greatly worsen in the future, and identifying many global environmental problems as very serious.

There is no blanket response of pro-environmental behaviour; when people do act, they may undertake a broad range of what they perceive to be pro-environmental behaviours. These sketches suggest that far from there being a singular household response to environmental issues, there are in fact a multitude of positions and behaviours. For instance, while Belinda is concerned and active, her mother, although concerned, says nothing pro-environmental is completed by her family, either socially or domestically. Frankie and his grandmother on the other hand have a greater equivalence of response: both are environmentally disinterested and inactive.

They also highlight the disparities within the household as to what is deemed environmental behaviour, and what sorts of behaviour are conducted in the home. For instance, Lucy's mother gives a long list of pro-environment behaviours undertaken by the household. The list, however, does not include sending money to Bosnia, Lucy's own (and only) suggestion. Furthermore, in the case of Johnny, it is interesting that while his mum clearly includes him in her discussion of household pro-environmental behaviour, Johnny is much less forthcoming, This might stem from an 'uncoolness' connected with environmental issues and domestic and family behaviour which I detected from some people during the research.

CONCLUSIONS

This chapter has explored the variety of pro-environmental action undertaken by the young people in the research group. Overall, few activities are conducted at home, in the school, with youth groups, or with friends. This is surprising given that environmental interest in the group was so high; because they perceived a wide range of environmental issues as severe; and that many of the parents were 'very interested' in the environment.

In keeping with many large scale studies, the research group and their parents received most of their information about the environment from the media. Together, the TV, newspaper, radio and magazines far outweighed any of the other sources.

Some people had firsthand experience of environmental issues from coming into contact with pollution or other irritating substances. Others had strong memories of seeing or smelling pollution.

In the home and when shopping, some of the young people did have some direct agency within their household. However, most homes do not do very much for the environment and the discrepancies between environmental behaviour reported by young people and reported by their parents suggest that within households, people may have very different ideas about the environment and pro-environmental behaviour. Thus, because of the different interpretations, domestic environmental behaviour should not be framed solely according to household or family unit. Instead, care should be taken to acknowledge a broad range of intra-familial definitions and concerns regarding environmental problems, and the behaviour conducted as a result of these feelings.

Furthermore, young people do not always have the power, whether it be financially or within the family pecking order to implement changes which assuage their concerns. For example, to buy all the environmentally-friendly goods they might choose. Nevertheless, even the few requests made suggest that within some households, some young people do have enough interest in environmental matters and power to convince their parents that certain products should be purchased.

Only a few of the young people knew if their friends were concerned about the environment; fewer still had done anything with their friends to help. Many of the things that help the environment are controlled by adults. Although young people are limited in the extent to which they can be environmentally active, particularly without the consensus of adults, Belinda, for example, shows that it is still possible through her plays and leaflet creation.

Many of the clubs to which the respondents belonged had not undertaken environmentally related activities. This is partly because some of the groups do not have the scope to do so. However, even those clubs that could talk about the environment, do not seem to have become involved. I was surprised by how little had been discussed particularly in the Scout or Guide movement, suggesting that nationally organized youth groups have not really taken on the challenge of environmental issues. There needs to be greater community support of environmental education campaigns in existing youth groups.

Some of the parents were active in regard to environmental issues taking, part in local community events and pressure groups. However, most of the parents were not involved albeit from watching TV programmes about the environment or walking in the countryside. Many did not even undertake domestic recycling. Thus, not much overall is completed by the parents and this is significant given that the half of the parents are 'very interested' in the environment. Furthermore, even those parents who are pro-environmentally active do necessarily induce comparable behaviour and interest in their children.

Overall, not much pro-environmental action occurs in the home or during leisure activities. However, there are some signs of action both free from the adult gaze (Belinda), or incorporating the whole family (Lucy). There are also instances of complete inaction (Frankie) or of great disparities in responses between household members (Darren, Beth, Johnny).

CHAPTER 7
ENVIRONMENTAL MEDIA RECEPTION

This chapter will explore the respondents' perceptions of environmental media, important (as noted in *Chapter 5*) because the media are by far the most commonly cited sources of environmental information and because (as noted in *Chapter 2*) little is known about young people's impressions of this media. As detailed in *Chapter 3*, two programmes were shown to the respondents, a cartoon and a documentary. These programmes were discussed in the focus groups immediately following viewing. In the individual interviews, there was discussion of environmental events which had recently been in the news.

Since its arrival, television has become firmly established in the household and within the structures and routines of family life (Morley & Silverstone, 1990). Recent studies have found that young people watch between 17-22 hours of television a week although, contrary to popular opinion, young people actually view 25% less TV than the rest of the population (Beere & Newell, 1990). Today, TV is viewed in multi-set households, indeed, 70% of 11-14 year old young people have a television set in their bedrooms (MacDonald, 1994) although this has not created a preference for solo viewing (Gunter, McAleer & Clifford, 1991). In addition to TV, a wealth of other communication and information innovations - from video to computer packages to the Internet - have become commonplace in the home.

Current television programmes favoured by young people, aged 8-15 years old, include Blue Peter, Maid Marion and Her Merry Men and Grange Hill, along with programmes not specifically designed for young people such as Casualty, Neighbours and Coronation Street (MacDonald, 1994). Of all the programmes on television that young people watch, only a quarter have been specifically designed for them (Forgan & Yentob, 1995).

MEDIA EFFECTS

Much has been said about the media negatively affecting the young. Young people's development is believed to be damaged by images seen on television and other media, because they are seen as less discerning viewers who are unable to cope rationally with the images they view. Such concerns have been raised ever since television arrived and follow many similar debates such as the dangers of theatre (Addams, 1926) and cinema. Indeed as Halloran notes:

> "The alleged effects and the alleged extent of the influence of mass communication in general and of television in particular are fiercely debated topics which are rarely out of the news. Charges, counter charges, assertions and denials are frequent. Mass communication is...blamed for increased crime, violence, immorality, and escapism" (1964:11).

The above quotation reads more like a summary of the current debate on media effects rather than one of the first governmental research committees on television. Today, very little about the debate has changed. For example, as Condry, a Professor of Human Development and Family Studies at Cornell University, writes:

> " ... television cannot be a useful source of information for children. Indeed it may be a dangerous source of information. It offers ideas that are false, unreal; it has no coherent value system, other than consumerism; it provides little useful information about the self. All of this makes television a terrible instrument for socialization. Since it was never meant to be a tool for socialization of the young, children who use it face growing up absurd" (1993:270).

Ultimately, debates surrounding the effects of television on young people are very much grounded in social conceptions of young people and childhood. Buckingham notes that the mass media are scapegoated for wider social changes concerning "deeper anxieties about changes in the social order and in national culture" (1993b:2). As an example of this, Condry makes the familiar assertion that "many American children are troubled today; one of the reasons is that they spend too much of their childhood watching television" (Condry, 1993:271). As *Chapter 2* discussed, whilst this view is often expressed, it is far too simplistic in its conception of young people, distant from their lived social reality, and overemphasizes the power of television. As Buckingham notes:

> "The media are regarded as a direct source of undesirable attitudes which children adopt, often 'unconsciously.' There is little sense here that children may compare their experience of television with their experience of the social world, or that they may question or distance themselves from the representations it provides" (Buckingham, 1991:17).[1]

For some commentators, young people do not even possess the acumen to switch off the television or make a choice of when to suspend watching one particular programme. Kubey offers a familiar expression of this attitude:

> "Industry spokespeople have argued for years that viewers who don't like what they see should turn it off. But this argument has never made sense for young people who haven't yet developed the judgment to know when to turn the channel" (1991:9).

However, other research has suggested that young people do possess media acumen. Gunter, McAleer & Clifford found that "...children, even down to the age of eight, are able to express often lengthy and well-articulated views about television programmes" (1991:179).

The stumbling block in debates about the effects of media is that they assume a far too simplistic transmission of ideas from the media to the audience. Audiences do have the potential to identify the intended meaning of the piece and subvert their own reading because of it (Buckingham, 1995).

As I outlined in *Chapter 1*, the move to understand how audiences respond to media emerged out of the work of Hall in 1973 (1985) and Morley (1980, 1986), in that they began to explore the possibility that people make their own reading of a medium's output based upon their own lives and experiences. For Morley, issues such as gender, ethnicity, and occupation were potential influences on how people read texts. Thus, readings of text by, for example, members of the police force, might be found to have more in common than the readings made by a disparate

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[1] However, Buckingham cautions against moving too far in the direction of children as all-powerful viewers, "in rejecting the dominant view of children as passive victims of television, there is a risk of simply adopting an opposite view. In place of the traditional image of the innocent, vulnerable child, we end up with an equally sentimental image of the wise, liberated child. This view of children is as homogeneous and undifferentiated as the one it seeks to replace. It continues to talk about 'the child' as a universal category, rather than specific children living in specific social and historical circumstances" (Buckingham, 1993a:19).

group of people. Thus, it is no longer the text that is looked at to find meaning but the reader.

This work has been of great importance in moving the discipline to a more sociological level and away from deterministic auteur debates which close off the possibility of readings other than that which the author intended. However, Buckingham warns against adopting this approach without due caution:

> "While broad social structural factors such as class are bound to influence the ways in which individuals make sense of television, it is important to regard these not as *external* constraints, but as social relationships which are actualized or brought into play in the specific context of the discussion itself. 'Decoding' television is itself a social process, not merely an effect of other social processes" (Buckingham, 1993a:46).

For Buckingham, while audiences are situated as individuals within certain overlapping social spheres which are part of their identity, there is no given frame that all people can be permanently fitted under, by virtue of their occupation or their gender. Instead, various roles, statuses and identities are chosen rather than pre-determined.

Young people, just like adults, will differ in their reception of media, because they are from different social groups and have different life experiences which will frame their viewing. As Burgess, Harrison & Maiteny observe, "meanings are created within distinct political, economic, social and historical contexts" (1991:499). For example, gender may provide common experiences for some of the audience. Furthermore, people from different ethnic groups may find some of their gendered readings at variance with others from the same gender but a different ethnicity (Buckingham, 1993a). As Buckingham notes:

> "Viewers are seen here, not as unique and coherent individuals, but as sites of conflict, 'points of intersection' between a variety of potentially conflicting discourses. Different discourses will be mobilized in different ways by different viewers, and in different contexts, and it would therefore be a mistake to look for a single, consistent reading" (1993a:18).

Thus, this research does not overestimate the power of the media, because viewing is so bound up in the social and historical context of the viewer. The impact of television programming and other media sources which offer a positive image of environmental issues can only be gauged along with all the other inputs on environmental information, rather than seeking out a direct cause and effect from

the media. The media are attributed with too much power to affect young people. This research assumes young people to be active viewers, viewing both from their own previous experiences and beliefs and within a social, political, cultural and historical context which may connect them to other persons of similar social groupings.

ENVIRONMENTAL MEDIA FOR YOUNG PEOPLE

While much of young people's culture has been aggressively policed to 'protect' young people,[2] the environment has not been regarded as a controversial topic and has appeared in many media texts for young people without much concern from the usual defenders of morality, through an acceptance that anything concerned with environmental issues is beneficial and worthwhile (Gerot, 1991). For example, as *Chapter 2* outlined, although the BBC programme Blue Peter has for many years advocated recycling, in recent years the environmental agenda has become more overt with the replacement of the series annual with a yearly book on Green issues, and the creation of a 'green' Blue Peter badge which is given out once a week to a viewer who has been environmentally active. Some television programmes while not taking on a 'green' aura for the series as a whole, do co-opt environmental issues for certain of its episodes. For example, Seiter (1995) writes about an episode of the cartoon 'My Little Pony' whose storyline revolved around a chemical threat to the area where the ponies live.

As *Chapter 2* outlined, many cartoons have been created with environmental themes. For instance, the cartoon research text, Captain Planet and the Planeteers (see Illustration 2) was established with a four-fold intention:

> 1) "Entertain through dramatic storytelling, compelling characters and exciting animation.
> 2) "Educate and inform children about real and relevant environmental social issues with the objective of raising their awareness, interest, and involvement in problems which affect their own neighbourhoods and our world as a whole.
> 3) "Motivate children to seek out more information about environmental and social issues.
> 4) "Empower children and encourage them to become informed and educated decision makers as well as active members of their local communities" (Gottlieb, 1996).

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[2] By the programme makers themselves hoping to maintain their (profit linked) share of the ratings (Gerot, 1991).

However, despite these well-intentioned approaches, in the one critical media article about environmental cartoons that I was able to find, fears were raised that environmental media 'produce' young people who "think about these issues ideologically, rather than rationally or scientifically," causing worries that "if a generation of kids comes out of school and discover that what they were taught has been discredited scientifically...they will not take the question seriously" (Mortimore, quoted in Young, 1992:27). Despite these fears, little is known of how young people perceive television programmes which contain information about environment.

Whether environmental texts can be a source of learning depends upon the audience member and the way in which the material is assembled. For instance, Gunter, McAleer & Clifford found, from discussion with young people (7-16 years old), that they did not like excessive amounts of media information and "being talked down to nor did they enjoy overly simplistic material" they would rather the information arrive realistically rather than being put over "embedded in entertainment" (1991:187).

Watts & Bentley (1987) assessed the benefits of science television made especially for schools. They discovered that teachers and pupils perceived learning from the TV as an inactive enterprise, that such learning cannot be fun, and that the media are not a serious means of promoting knowledge about the environment. Such views are ironic given that Driver, Guesne & Tiberghien (1984) conclude from their research that TV offers an easy way into difficult topics and may actually leave a lasting impression. Indeed, a BBC survey found that 88% of respondents felt they had learnt from TV nature programming (Forgan & Yentob, 1995).

Leal (1987) suggested that media containing environmental information can effectively reach a widely differentiated community, especially if the programme content is uncomplicated. This knowledge, coupled with the difficulty of targeting programmes for young people because they are not one undifferentiated group (Forgan & Yentob, 1995), provides the wisdom that programmes about the environment must hold wide appeal and be broadly socially and culturally relevant to gain maximum audience interest.

ILLUSTRATION 2: CAPTAIN PLANET
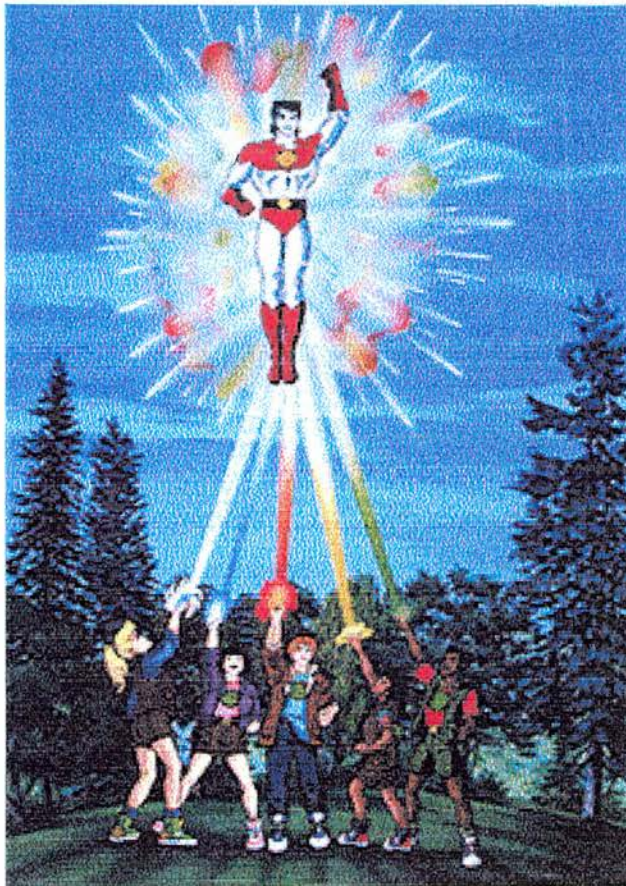
ENVIRONMENTAL THEMES IN THE CARTOON

The episode of Captain Planet and the Planeteers used in the research contained several environmental themes (see Appendix 6 for more details). The environmental theme which anchored the episode revolved around damage to the desert top-soil by recreational vehicles. Other themes which stemmed from the vehicle use, included pollution and the threat and destruction of plant and animal habitat. The desert can be identified as the key theme as it received a special focus throughout the episode. It is introduced into the cartoon in an early scene when Ma-Ti, one of the Planeteers, summons help from Gaia (Mother Earth) and the rest of the Planeteers after the 'bad guys', Greedly and Rigger, have been racing their vehicles across the desert creating a big dust cloud and threatening animals.

Ma-Ti points his magic ring into the sky and contacts Gaia and the others.

Ma-Ti	*We must stop Greedly. His off-road hoggs are turning the desert into a wasteland.*
Wheeler	*I thought that's what a desert was.*
Gaia	*No but that's the way it will be if Greedly gets his way.*

On the view screen we see wild flowers growing in the desert.

Gaia	*The desert has a thin layer of top-soil where plants grow*

See off road vehicles crushing the flowers and leaving behind huge tyre tracks.

Gaia	*Off road vehicles crush the soil so when the rains come*

See rain falling.

Gaia	*Instead of absorbing the water it washes away.*

See puddles forming.

Kwame	*But without soil plants cannot grow.*

See lizard sheltering from the sun underneath a bush

Gaia	*And then things get really hot for the animals who need plants to hide them from the sun as well as predators.*

See dirt bike traveling through the desert throwing up a cloud of dust.

Linka	*Are even little dirt bikes bad?*
Gaia	*You mean like that one?*

See bike traveling along.

Gaia	*Every mile it displaces 1500 pounds of top-soil*
Gi	*Almost a ton!*
Wheeler	*Heavy!*

See desert

Gaia	*The desert top-soil can take a 1000 years to build-up*

See Greedly and Rigger driving through the desert.

Gaia	*And Greedly's recreational bulldozer can destroy it in one second.*

This theme is repeated several times throughout the episode although not in quite as much detail. The cartoon suggests that damage to desert top-soil results in upsetting of the natural balance of the sand, as well as disturbing animals and plants. It is emphasized that, contrary to the wasteland image, the desert is rich in animal and plant life and is a far more delicate eco-system than it looks; a healthy desert is no wasteland or wilderness. In addition to this, the cartoon emphasizes the divergence between nature's time and human (and indeed, vehicle) time. Thus, the desert takes a very long time to build-up but humans have created the power to destroy it very quickly.

Many of the scenes in the cartoon show clouds of dust surrounding the vehicles and black smog being pumped into the air. This pollution is a threat to the Planeteers themselves because it prevents their magic rings from working. Pollution can subvert the Planeteers' superhuman powers and prevent them from joining their powers together to summon Captain Planet.

Some of the main themes of each episode are dealt with in the two Planeteer Alerts at the end of the episode. These alerts work to reiterate, speaking directly to the audience, the themes of the episode. They place the environmental themes contained in the story into a realistic setting showing the themes to be relevant in the viewers own lives and suggesting environmentally correct behaviour to adopt.

In this research episode, the first alert concentrated on the desert. It reiterated the main theme: the desert looks rugged but it is very delicate and it takes a very long time to heal. It also suggested that when the audience visit the desert they should not pick the wild flowers and should bring their own firewood for camp fires, rather than using what they find in the desert.

The second alert focused on pollution in the city and suggested that because smog damages "all living things" people should think about using non-polluting forms of transport and that forms of transport which do cause pollution should always be well maintained and serviced in order to keep pollution to a minimum.

FOCUS GROUP RESPONSES

As outlined in *Chapter 3*, very few of the group had been to the desert, yet despite this, a surprisingly large number of the respondents (see *Chapter 4*) felt the issue to be serious.[3]

The majority of the respondents had previous knowledge of the cartoon series. They talked (some reticently) about watching it when little. Others talked about younger siblings who currently watched it. Some group members used to role play characters when they were younger. For instance, Belinda used to play at being Captain Planet. This suggests that media texts can create wider spaces and pleasures in people's lives beyond viewing.

When I asked the respondents to hypothesize what Primary 1 and 2 would think of the cartoon, there was agreement that they would find the cartoon exciting and humorous (Alison, Ian, James, Suzanne, Darren, Johnny). Much of the focus on younger viewers centred around their appreciation of the characters and the action. No-one thought that younger viewers would understand the environmental themes (Group 2, Sarah, Carol, James, Darren, Johnny) For instance, Johnny suggested that "they would watch it but they wouldn't understand it." It is quite ironic that the groups felt that the cartoon was suitable for younger people but felt that they would not appreciate the themes.

Even more ironic is the fact, detailed below, that many of the respondents failed themselves to comprehend or express the main message of the cartoon. For example, Group 3 had already discussed that they felt that people in Primary One or Two would not understand the cartoon's environmental themes, however when I asked them what they thought it said about the environment, a long silence fell over the room:

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[3] In the questionnaire responses, 4 people suggested that damage to the desert was a very serious issue, 10 said that it was a slightly serious issue, 5 said it was a not very serious or not at all serious issue and 6 did not know. No-one said that damage to the desert was not a problem.

SCG	*So what do you think Primary 1 and 2 people would think of that?*
Sarah	*They would probably like it because*
Carol	*=probably like it / laugh at it*
Brian	*(.....) of the cars and motorbikes*
SCG	*cars and motorbikes. What do you think they erm /what do you think they'd think about the environment /do you think they'd/*
Sarah	*They probably wouldn't even know about it*
Brian	*[shaking head] No*
Carol	*They would just think there that they were back home watching the cartoon / and that bit they have at the end they were probably weren't watching that at all*
SCG	*Right, just wouldn't spot it/ mmhuh. What do you think it said about the environment?*
	Long silence.
SCG	*[Slightly laughing] Nothing at all?*
	Silence and giggles
SCG	*Does it not show anything?*
Sarah	*It shows like /// plants*
Brian	*Using vehicles and polluting the desert*
SCG	*Huhuh. How were they polluting the desert?*
Brian	*Gas comes outs of the*
Carol	*= the exhaust*
SCG	*Uhuh*
Nicholas	*The tyre tracks*
SCG	*Tyre tracks. What were the tyre tracks doing?*
Nicholas	*Like they were going over the plants, animals*

This group did eventually manage to mention the main themes albeit at a limited level of expression. For instance Carol described the problems by saying that "the water was killing the sand."

Mary, in Group 4, mentioned the key point highlighted in the video that the rough looking desert is actually a very delicate place and it is damaged by driving through it. However, when I took this point further and asked what happens when you drive in the desert I received a response that it pollutes (Ian) and (Mary) scares the animals. Although there was a general impression that the desert is damaged by vehicles, and despite the discussion of the other two environmental themes of the cartoon, there was no expression of the top-soil concept.

In Group 5, many of the themes were mentioned when the initial question was asked. Although hesitatingly spoken, the group worked together to unpack the themes and reached a deeper level than any of the other groups collectively. However, the word 'pollution' emerges again for the explanation of the damage caused by the car tyres.

SCG	Do you think it said anything about the environment or environmental issues?
James	in the end it did with the
Catherine	car pollution
SCG	car pollution ahha / can you think of anything else
Suzanne	Nope
Catherine	Nope
Pause	
James	about the desert
SCG	ahha
Catherine	Yeah that cars damage it
SCG	ahha / so what were they saying about damaging the desert
James	cos it takes erm
Catherine	ages for the tyre marks to go away
SCG	ahha
Catherine	and it does something to the soil
Suzanne	the water goes in
James	it takes years for it to grow and if they're just going to pollute it then there'll be nothing in the desert
SCG	ahha
James	cos there's not much in it as there is
SCG	ahha Yeah / and how about pollution / how were they polluting
James	with their exhaust fumes
SCG	ahha
James	with the smoke

Group 6 only mentioned pollution when initially asked what the cartoon themes were. After I had asked the question several times and received no response, Frankie did manage to elaborate slightly on the environmental themes later in the interview. However, as mentioned in *Chapter 3*, there was a great deal of 'random noise' in this group's discussion partly because two of the group members (Frankie & Johnny) had swapped identities.

Responses to the cartoon varied tremendously regarding the damage to the desert top-soil. The majority of the research audience emphasized the problems of pollution and the threat to animals and plants. Despite a very clearly explained piece in the cartoon, only a couple of people actually spoke specifically about the loss of top-soil. Although the respondents expressed the threat to the desert by vehicles, this was often said with reference to pollution alone.

This lack of response may partly arise from the novelty of the information. Only two of the research population had any real experience of the desert and the issue of damage to the desert top-soil has never been prominent in the British media. In contrast, air pollution is a common reality both from an actual experience of urban living and symbolically through many media news programmes.

Towards the end of the cartoon episode, rain running off the race-damaged desert top-soil caused a flash flood. I used this part of the cartoon to approach the loss of desert top-soil from a 'consequences' angle. This was even less perceived by the groups. Only one person, Alison, had made the connection between the top-soil loss and the flood, which she expressed by describing the scene of the flowers being crushed and then disappearing in the rains. Group 6 made no response at all to this question despite being asked several times. Others who responded thought that the flood started because of the build-up of pollution (Wendy, James). Although they had comprehended the damage caused by vehicles they had not made the connection to the effects with the delicate top-soil.

Carol confused an earlier scene when discussing the potential cause of the flash flood. Earlier, Captain Planet had stopped the 'baddies', Greedly and Rigger, from threatening the Planeteers and polluting the environment. Captain Planet spun down into the sand until he reached an underground well and brought the water up to create quicksand, to cover, and thereby ruin, the off-road vehicles. Carol confused this part of the programme, linking it into the cause of the flash flood:

> Carol   *Because Captain Planet broke up one before didn't he? He was on one / he was on the top of one / maybe that's what's caused it / it just came back up again.*

This response looks to nature and/or Captain Planet as the cause of the flood. This reading raises doubts about the ability of an eco-being to have superhuman powers which do not damage the environment. Furthermore, it shows the potential variants in reading cartoons and thus the possibility of receiving media containing environmental information far away from the intended message of the animators.

The threat to animals created by the vehicles was received in a similar 'familiar' and 'experienced' way to the theme of pollution. The idea of the threat to the animals and the plants by the vehicles (Mary, Steve) was identified, as was the threat to the natural balance of the food chain. For example, when a desert rat was deafened by the vehicles it got eaten because it could not hear the approaching threat of the snake (Nicholas). There was also a discussion of the loss of plants to shade animals from the sun and the threat to their habitat caused by the floods.

Discussion often led to 'real-life' stories about wild and domestic animals. This topic clearly held a great deal of interest for them. This was partly through the

ownership of a wide assortment of pets and, as outlined in *Chapter 4*, seemingly through a gruesome fascination with death and strange animal experiences.

MEMORY OF THE CARTOON IN THE INDIVIDUAL INTERVIEWS

During the individual interviews, I asked the respondents what memories they had of the cartoon. Obviously the time period since viewing varied depending upon when they had seen the cartoon and when they were interviewed. When asked what they could remember about the cartoon most people, unprompted, mentioned threat to animals (Frankie, Belinda, Steve, Nicholas, Caitlin, James, Ruth, Lucy), or when prompted (Ian). Pollution was also mentioned freely (Ian, Caitlin, Ruth, Carol) and when prompted (James). The main theme of damage to the desert top-soil was mentioned less frequently: directly (Arthur, Frankie, Ruth) and also in a more general discussion of threats to the desert (Nicholas). For Arthur, damage to the desert top-soil was the only thing that he remembered about the cartoon but he remembered it clearly:

Arthur	*That it took 1000 years for the sand to go that way and when they drive over it it's all ruined.*
SCG	*Ahha/ and what/ why is it ruined?*
Arthur	*Because / like water can come/ and flood the place*
SCG	*Right /OK/ and what / what about any other themes/ that were in the cartoon/ can you think of anything else?///No OK//*

Others could remember a good range of themes from the cartoon:

Ruth	*Some of the buggies / were ruining the ground / so when the rain came over / mud slides*
SCG	*Right OK / and can you remember any of the other themes that they were talking about?*
Ruth	*All the pollution and that / given off*
SCG	*Yeah / OK / and do you think / erm / that / there's a way to stop that sort of thing happening // No/OK/ and do you remember some of the animals in the cartoon / do you remember what was happening to the animals*
Ruth	*The snakes (hypnotized?) from all the pollution from the cars*

Whilst most of those interviewed connected the environmental damage with vehicles and their drivers, some people spoke of the sandstorms in the desert as actually causing the problems experienced by the plants and the animals (Suzanne, Caitlin) which confirms commonly held stereotypes of the desert as a wild, untamable place (Cottle, 1993). For example, Caitlin said:

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> Caitlin   *There was no water coming into the desert and there was*
> *sandstorms the whole time and some animals were dying cos of the*
> *sandstorm.*

To conclude this section, the cartoon, although generally derided by the respondents as being too immature for their tastes, was not understood by them in the way that the programme makers seemingly intended. While general ideas emerged about some of the environmental themes, a full appreciation of what was being outlined in the video seemed to be lacking. The ideas that did emerge, such as pollution and animal welfare, seemed to reflect their own experiences of environmental debate, supporting the argument that it is not what the text itself says that is important but the lived context in which it is heard. In some cases, where no experience could be drawn upon for explanation, nature itself was blamed for the problem.

DOCUMENTARY

The documentary about the Greenhouse Effect covered a whole range of issues relating to the cause, effects, and solutions of global warming (see Appendix 7 for more details). The video contained five sections: The Greenhouse Effect; Causes and Consequence; Feeding the World; Whose Turn Next; All Together Now. Real-life news footage and interviews with scientists, and those affected such as farmers, were combined with a scripted explanation of the Greenhouse Effect.

In the focus groups following the viewing of the documentary, the opening question asked for a general reaction to the programme: "so what did you think of that?" Response to this question varied tremendously, ranging from good to boring. On the whole it seems as if most respondents found it somewhere on a continuum from OK to good. Those that found it boring thought that it was boring because it was not realistic,

> Ian   *It was boring/ well it was a bit alright but it was a bit boring*
> SCG   *Ahha/what was boring about it?*
> Ian   *Erm because /// because people don't do most of the things*

Quite a few people thought that the video was too long, even those who responded favourably to the video were beginning to lose their interest towards the end of the film. This is no doubt a result of over-bombardment of information by showing the

video all in one go rather than in five parts as the makers intended. Only one person responded that it was just long enough (Steve).

I was interested to gauge initial impressions of the themes of the video. I asked "what do you think they were talking about?" Although the responses to this question don't necessarily indicate their full appreciation of the text it is interesting to see what they mentioned first.

Group 2 talked about pollution and its effect on animals.

SCG	*So what do you think they were talking about?*
Steve	*Ehh, stop, ehh, all the polluting, and everything*
Darren	*Cos the animals are just going to die and that*
SCG	*Ahha*
Steve	*Soon there'll be no animals*
Wendy	*There'll be no land either because they'll all be taken over by the sea if you keep on melting the ice (...) at the North Pole*
Darren	*There'll be no children, eh people*
Steve	*Because of the refugees in other countries are dying because of the droughts and that.*

The above discussion is interesting given that animals are mentioned before young people and 'people', suggesting a real concern for animals. This is especially so given that there was no real mention of animals in the film. Only four very brief visual images of animals occurred and just one of these suggested any real signs of suffering when an animal was shown collapsed (dead?) in a drought.

Group 4 did not answer my general question about what the film was about, so I followed it by a direct question about the Greenhouse Effect. Only one person answered and clearly understood the metaphor. Similarly a member of Group 1 succinctly put it by saying that, "the Earth's getting too hot." However, this was immediately followed by him saying that it was "freezing to death" which provoked much laughter and correction by another group member.

Some members of Group 5 mentioned the link with pollution, but like some in Group 6, also connected this to the hole in the ozone layer showing confusion similar to that found by Boyes & Stannistreet (1993) among the 11-16 year old young people that they researched. Therefore it would seem from this initial questioning that there were some variances as to what the film was about and what the Greenhouse Effect actually is. This, as *Chapter 3* outlined, is possibly a problem with the terminology

whereby the groups were unfamiliar with the names or the actualities of the problems, and therefore fail to link up what they have watched with the problems they already have heard about. I am sure if this video was shown as it was intended to be shown, that is as an educational device using the supporting materials - then such responses would not occur to such a degree.

THE METAPHOR OF THE GREENHOUSE TO EXPLAIN CLIMATE CHANGE

Given that the Greenhouse Effect cannot be seen in the same way as, for example, the sight and smell of smog in the city, it seemed important to discern whether the metaphor of the greenhouse is useful to understand global climate change. Group 3, in particular, did not appreciate the metaphor thinking that the issue was about actual greenhouses getting too hot! Despite extensive questioning they did not veer from this point of view. I thought at one point that they might be joking together but given that Brian made the same connection in the individual interviews, prior to the documentary, then I feel it is more likely that it is a genuine misperception, possibly extended in the focus group by the dynamics:

SCG	*And what are some of the problems/what is the Greenhouse Effect/ what is it exactly?*
Carol	*The heat*
SCG	*Ahha*
Carol	*Is getting into*
Brian	*Heat is stored in the greenhouse*
.	
.	
.	
SCG	*And how is the heat going to change our climate, what's happening with the heat?*
Carol	*We're not getting enough of it.*

Following this discussion, the group did manage to talk about other things that the film mentioned such as droughts but when asked about the linkages with Greenhouse Effect and drought, no-one answered.

All of the other groups understood, to a lesser or greater extent, the use of the greenhouse as a metaphor for climate change. One person thought that it would help young people to understand the issues, although here, there is some confusion whether they meant the video as a whole, or the metaphor. Others compared it to real greenhouses in their own gardens or ones that they had visited either at the

Botanical Gardens or at the Butterfly Farm. This left me wondering if they were more confused following the use of the metaphor, although I think that in fact they were just relating the image of the greenhouse with their experience of real greenhouses rather than actually confusing the metaphor with the real thing.

Steve	*The only one I've heard about is in the garden*
	Laughter
Lucy	*There is sort of like a greenhouse thing but not like the one on the telly there is sort of like a greenhouse thing at the Botanic Gardens*
Steve	*That's really hot*
...	
SCG	*So you can sort of see what they were saying in the film*
Steve	*Ahha*
SCG	*That it's really hot*
Lucy	*And it's trapping*
SCG	*And it's trapping all the heat*
Lucy	*And it's got all trees in it banana trees and everything some stuff that you don't get here.*

CAUSES OF THE GREENHOUSE EFFECT

The second part of the video described some of the causes for a build-up of greenhouse gases in the atmosphere. A caption appeared on the screen which read 'How to wreck the planet's atmosphere in four easy stages.' This was followed by four further captions with background pictures and music with a heavy beat: 1) Waste energy (view of cars on motorway). 2) Burn as much fuel as possible (view of oil field). 3) Destroy the forests (view of burning forest). 4) Poison the skies (view of smoking chimney). These visuals were combined with diagrams of the atmosphere showing which gases contribute to global warming and their sources.

I was interested to see how many of the causes cited in the film would emerge when the groups were asked about contributors to the Greenhouse Effect. All of the groups gave some answer although these varied greatly in regard to the depth of response. Group 2 talked about using too much energy, and later mentioned deforestation as more of a consequence of global warming. In Group 4, the person who responded mentioned deforestation, but no mention of pollution was made throughout the discussion. The respondent in Group 1 mentioned pollution and talked about CFCs from refrigerators and aerosols. The group did not talk about deforestation until prompted. Group 3 maintained their unusual discussion of real greenhouses getting too hot:

SCG	*Why are we getting a Greenhouse Effect?*
Nicholas	*Cos the sun's getting trapped in the greenhouse.*

Their discussion of deforestation was prompted but led on to an unprompted mention of car pollution followed by a discussion about the need to recycle paper.

Group 5 covered most of the points mentioned in the film despite initial confusion from one of the respondents connections to the ozone layer. They were prompted by a question regarding deforestation but were eventually able to have a long discussion about forests:

SCG	*OK how about what they were saying about deforestation / cutting the forest down*
James	*They should just /leave them / if they take a tree out they should /plant one that's already /growing*
Suzanne	*It say something about /like the the burning of the forest can do / good*
SCG	*Ahha*
Suzanne	*or something I don't think it can because it's like*
James	*Its killing animals as well*
Suzanne	*Aye*
Kelly	*and destroying the limited supply of animals /and /their homes*
Kelly	*ahha*
Darren	*Can we see the video after?*
	Laughter
Kelly	*And every time that erm /they cut down they're wasting /they*
waste	*the most of it they're using it for good use /*
SCG	*ahha*
Kelly	*(&) and every time they should/ they do cut a tree down they should plant / other trees where that one got cut down and they shouldn't*
James	*they should only take / they should be limited to take out of one forest /like normally they're cutting full forests down*
SCG	*ahha*
James	*(&) they should only to be allowed to take like /(?three) quarters of the forest*
Darren	*And plant more forest*
James	*and then plant more in that space but space it out*
SCG	*right*
James	*(&) instead of taking them all out of the same place / and it'll grow back*
SCG	*why do you think they're letting them take out full forests*
James	*cos paper and /things like that*
SCG	*mmm*
Darren	*if they destroy all the forests*
Suzanne	*if they stopped /cutting trees down then they /wouldn't have any paper.*

Some of the above discussion, particularly talk about renewing forests, was not contained in the video. Discussion of the destruction of animals and their homes was not mentioned in the film either but it seemed to hold a particular importance for some of the group members.

CONSEQUENCES

The consequences of the Greenhouse Effect outlined in the film related to the effect on weather and the ice caps. The video suggested that melting ice caps will lead to a rise in sea-levels, which would, in turn, threaten many of the world's large population centres, both in the developed and the developing world. The video also mentioned how the weather will become unpredictable with droughts and storms, leading to the disruption of agriculture around the world.

I asked a series of questions relating to the consequences of the Greenhouse Effect. The questions started in a general open form, and then, if points were not mentioned in the group's responses, I would ask a more detailed question. I wanted them to discuss not only what would happen but where the impact would be felt, and if some people would suffer more than others.

SEA-LEVEL RISE AND FLOODING

In general, the groups had understood the message that the sea would rise and cause flooding. Fewer of the group members mentioned melting ice caps as a cause of the flooding. Some groups took the idea of flooding to mean that the whole world would become submerged in water. For example, in Group 2 there was a comparison made with Noah's Ark and how you would need to build a huge boat to fit everyone in. There was some confusion suggested by their discussion of the 'seeming contradiction' between more water and the increase in drought:

Wendy	*If the world's getting hotter and hotter then we're all going to toast.*
SCG	*Ahha.*
Steve	*(...we will?) toast (...)*
Darren	*Ah but you could go for a swim.*
Steve	*Aye at sea*
Lucy	*With the fish*
Darren	*Aye the jelly fish.*

In Group 5 they spoke of these seemingly contradictory issues by saying it was an 'either-or' situation: everything would freeze or melt. Other groups spoke with more focus on the issue. For example in Group 4 :

SCG	*OK and so what sorts of problems are going to happen because of the Greenhouse Effect?*
Ian	*The world well the sea will go higher and flood capitals like London.*
Lucy	*Will the Arctic melt or something?*

Some suggestions to avert the problems were all post-flood measures. The discussion involved moving house, making your house into a raft, swimming, living on boats, building banks and walls as a defense against the sea. Even emigration was proffered as an potential solution:

Douglas	*What would happen if all the ground got covered in sea?*
SCG	*Ahha*
James	*We'd have a problem. We'd all have to buy boats.*
Suzanne	*=Why does, do you know how it showed erm like floods and stuff in China*
SCG	*Ahha*
Suzanne	*Why don't they just like emigrate to somewhere that nothing's happening?*

When I asked some of the groups about the possible location of the flooding they mentioned places that had been included in the film. They did think that, eventually, such floods would trouble Edinburgh. When I inquired about the differential impact of flooding, they indicated that people who lived near to the sea would be affected more.

CROPS, DROUGHT AND FARMERS

Another consequence of the Greenhouse Effect cited in the film was the increase in drought. This was shown in the video via reference to real-life farmers and their crops both in the North American Corn Belt and in Ethiopia.

When asked what would happen to farmers in the event of drought caused by global warming, most of the people who responded said that their crops would fail. Some people linked this to there being no food and leading to starvation, although this was on occasion somewhat confused:

Brian   Cos one of the farmers said they would be able to survive but they
                 wouldn't be able to eat though.

Lucy mentioned that animals would die. Even though this issue had not been raised
directly in the film, there was a brief scene showing a farm animal collapsed (or
possibly dead). Although this clip may have prompted the response, it no doubt
reflected a more general concern about animals.

The respondents were asked who they thought would be worst affected by climate
change, the farmer in America or the farmer in Ethiopia. Group 5 thought they
would be both hit in the same way because once your ability to farm is damaged
then you have lost your livelihood regardless of where you live. Ian, in Group 4
linked his response to flooding and it was thought that the worst hit would be
whoever lived nearest to the sea. In other groups there was the suggestion that the
American farmer had more to start off with and so the African farmer was
perceived to be under more threat. These responses are however, also tied in with
perceptions of Ethiopia as being permanently dry, even though the film highlighted
similar problems being suffered by the Corn Belt in North America. Thus Steve and
Wendy in Group 2, Carol in Group 3 and Beth and Arthur in Group 1 all expressed
similar reasons why Africa would be the worst hit:

SCG   Why do you think Africans?
Carol   Because they dunnae get enough rain
SCG   Ahha
Carol   (&) and like it's dry and they've no, hardly any food, and because
                 there's no rain their, crops won't grow.

SCG   which do you think / it'll affect the most?
Steve   The one in Ethiopia./Cos erm he's not got any /food
Wendy   He's not got any
Steve   Food
Wendy   or water or cattle.
Steve   Cos if we're to make food all the cattle would disappear
                 /and the heat's just killing them.

SCG   who do you think would be hit worst
Beth   The one in Ethiopia
SCG   Ahha why?
Beth   because
Arthur   because it's all /DRY
Beth   because he's only got a few crops and the one in America
                 hasn't he's got loads?

A rich and poor distinction was made with regards to coping once the catastrophe had occurred; that rich people could just buy things when crops fail. In a slightly more sophisticated vein, one person suggested that the crops grown in America are not always grown solely for American consumption:

SCG   *Or how about like the difference between the farmers that they showed/ they showed a farmer in Ethiopia /and one in /the US/ do you think they'd be/ suffer the same if both their crops failed/ would they*

Frankie   *mmm /Ethiopia would suffer the most because thems /America would still have food*

SCG   *ahha*

Ruth   *and they're poorer /the Ethiopians*

Frankie   *but America provides some of the food for different countries*

However, in general, it was felt that over time everyone and everywhere would be affected.

CONSUMERISM AND DISTRIBUTION

In the film, there was a discussion about the developing consumer markets of the Far East and how if a large population wanted the consumption habits of the West then this would greatly increase environmental problems:

"USA says: 'India and China - you're polluting the world with your new industries. Please stop.'
India/China replies: 'But you've polluted the world for 200 years. Now it's our turn.'
USA: 'But you have so many people; so you can't develop industry at the same rate as we have.'
India/China: 'Then you'd better help us.'
USA: 'That won't work without a "Law of the Atmosphere" where everybody has to give up something in order to gain global environmental security" (Wright, 1990:19-20).[4]

To follow up this section of the broadcast, I asked the respondents whether they felt that the large developing populations should be allowed similar luxury goods as the West, given what we now know about the need to consume less. I even asked how they would feel about having fewer consumer goods so that people without could directly benefit. Responses were split between people's rights to have luxury goods and the damage that these goods might cause to the environment. There was also differences of opinion about whether people in the West should have less

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[4] This is paraphrased from dialogue in the video of the scientist Dr Schneider.

consumer goods, giving up their surplus to provide adequate amounts in developing nations without more production. Some suggested providing them with eco-friendly alternatives such as cars that did not pollute and alternatives to cars such as trams. Others thought that they should be given just as much as we in the West have:

SCG	*yeah/ so do you think they should be allowed them / if they're going to add to pollution / do you think people in India and China should be allowed some of the things*
Johnny	*No*
SCG	*(&) that we have here like cars*
Belinda	*well in a way yes because they've got we've got the same rights*
Frankie	*=cos we've all got it*
Ruth	*exactly they've got their own rights*
Belinda	*what what / what are they saying*
Frankie	*they've got their rights*
Belinda	*exactly*
SCG	*ahha*
Frankie	*they might take cars but they'll never take our freedom*
	Laughter

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SCG	*how would you feel about giving away your extra tellys to people in China letting them have them for a while*
Belinda	*= they're not going to find one of ours that we don't need*
Frankie	*they could take one of them the one without the cable or Sky*
SCG	*how about if somebody said well you've had them for a while we'll take them all away / we'll take all your cars away and let them have your cars and your TV cos they haven't had any and you've had lots for a while*
Frankie	*No*
SCG	*No*
Frankie	*No they're not going to take Sky sports away from me*
SCG	*would that not be fair*
Johnny	*one or two*
Frankie	*erm two*

SCG	*Do you think we should let /India and China /have what we have here in the West/like fridges?*
Darren	*Nah.*
Lucy	*It's not exactly fair.*
Darren	*[shakes head]*
Steve	*Noh.*
Darren	*We should give up*
Lucy	*we should give them / give them a turn at having something/ at least something.*
Steve	*=Everybody should just stop their (...)*

SCG	OK /but do you think they should be allowed to /have all these goods
Beth	[nods]
Kenny	No
SCG	(&) or should they
Arthur	Yeah
SCG	What happens when they say
Beth	How come we can have them and they can't then?
Kenny	Cos /we've got them they've not
Arthur	well maybe they should have them
Beth	We should stop having them and they could have them
Kenny	No/ we made them / they should make them/ they've got hands/ they've got feet/ they've got brains

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SCG	Do you think maybe we in this / in this country should have less / and give up some of our /luxury goods /to China and India. What do you think about that?
Arthur	Keep ours
SCG	keep ours [Kenny nods]
Arthur	Give them more
SCG	Ahha
Arthur	we could

SCG	ahha/ how about if we said /OK we'll /we'll erm/rather than/ us continuing to pollute with all our cars and things we'll give our cars to China and India / because they haven't had cars before/ would that be fair /to give away our stuff so they can
Carol	It would in a way but // it wouldn't in a way
Brian	not really because / the car company's should go over there
SCG	ahha
Carol	like a car company should send just maybe like a few cars over to give em to poor families for free /and they'll sell them to rich families.

SOLUTIONS

The film offered several suggestions as solutions to the growing problem of the Greenhouse Effect. Governments, it was suggested, could develop energy which did not pollute such as wind, wave or water power; they could also build cleaner power stations, plant more trees and stop destroying forests.

On a more individual level it was suggested in the video that people should save energy by switching off lights when not in use, using less central heating and hot water and by insulating their homes, and that they should make an effort to recycle

and to minimize household waste. It was also proposed that people could use the car less by taking to foot, bicycle, or public transport.

I asked a general question about what can be done about the Greenhouse Effect along with two more focused questions relating to what the government can do and what the group members can do to help. Other responses about potential solutions emerged throughout the course of discussion.

When asked what the government could do to help environmental problems a mixture of responses emerged. Many of the suggestions linked to the film were made such as wind, wave and water power, grow more trees, and stop burning forests. Several of the answers may have been the result of powerful visuals in the film but were not directly mentioned in the film's voice-overs or captions. These included: shutting down factories; talking to leaders of other countries; and making new environmental laws. As mentioned in *Chapter 4*, the government were not always regarded as having the best environmental intentions. More original responses were to prevent oil tankers from going to sea in case of a spill; use gases in factories that are cleaner; develop an environmental task force rather like the police; get all countries to help the environment; and use the money taken off the school budget in this country and send it to countries who need it. If the worst came to the worst, then:

Lucy	*If it did ever happen that the world was made of water we could just go to another planet.*
Steve	*Mars*
	[Laughter]
Lucy	*And start again.*

On the individual response level, the groups suggested many things that they themselves could do to help the environment. Some of the suggestions that the film had made were repeated, such as saving energy in the home through turning down your heating system and using less hot water. Non-polluting forms of transport were often discussed. For instance, there was talk of using bicycles and walking rather than driving in cars and trucks. One group linked energy with an experience on a school trip of being told by the driver about hydraulic doors (which use air and not electricity) and this was suggested as a possibility. There was also some discussion about rechargeable vehicles. The groups were trying hard to think of

effective alternatives to the problems of car emissions, for example, by suggesting the development of cleaner energy.

Belinda linked using environmentally-friendly transport to watching less TV, to save energy and provide time to use your bike more. This echoed the commonly expressed worry that young people watch too much television and it is not good for them.

Other suggestions emerged, possibly with a prompt from the film but not directly from the solutions clearly stated in it. These included Beth's suggestion that they should cease the use of aerosols and that she could "go and scream at my mum to get (rid of?) the fridge." It is notable that these ideas are personal rather than governmental solutions, suggesting action from the consumer rather than through government created regulations.

In Group 4, Marie suggested a collection to send food over to poorer countries, like they had done at school around harvest time, or having a concert to raise money. Other ideas that emerged reflected more personal concerns. Darren thought you could tell parents to stop smoking. Group 2 had a discussion about the human use of animals for food and for fur and cosmetics. This was not mentioned in the film but it was clearly an issue for the groups.

In sum, discussion of the documentary did show that respondents had registered many of the issues contained in the video. However some of the discussions, particularly those about the harm to animals, emerged without there being specific references to animals in the film; and often prior to an expression of concern for human life.

Some of the discussions focused on apocalyptic scenarios of needing to live on boats, emigrate, or live on the moon because of the impact of environmental problems such as the Greenhouse Effect. These, in part, may have arisen from estimation of the scale of flooding as a result of the Greenhouse Effect. Ideas of living on the moon do not have resonances with the film and seem to have emerged as a reaction to a general threat of dire environmental damage. They also connect to a discussion point of *Chapter 4* and *5*, namely that people have varying perceptions of environmental issues and their impacts.

Although the documentary carefully outlined the causes and the consequences of the Greenhouse Effect, one group did not understand this and thought that the metaphor was the actual expression of the problem. This could be attributed to receiving too much information in one viewing especially seeing as the video was made to be shown in segments with teaching material. However, at least one person in the group had the misconception before the video. It shows that, despite everything that was shown in the film, he at least made no connection, and so did not change his mind about the issue over the course of the film.

INDIVIDUAL INTERVIEWS - RECENT ENVIRONMENTAL ISSUES

Those selected for the individual interviews were asked if they could think of any recent environmental issues or events that they had heard about, and where they had heard about them. Most people had heard about the issues from the TV, and to a lesser extent, from the newspapers or radio. Other sources cited for knowledge and discussion of recent events were parents, siblings or friends. Only 4 out of the 12 gave an unprompted response of an environmental issue. However, when I followed up this question asking specifically about the recent environmental news of the Newbury Bypass demonstration and the oil spill off the Pembrokeshire Coast., Only one person (Ian) could not talk about one of the events and he could talk about another key issue when prompted. Another respondent, Carol, spoke more generally about deforestation rather than the Newbury Bypass, suggesting that she may not have fully known about the events at Newbury.

Aside from talk of Newbury and the oil spill other issues emerged. Arthur and James spoke of the intentional flooding of the Grand Canyon basin to de-silt it. Nicholas spoke of the French nuclear weapons testing in the Pacific. Steve spoke of the BSE crisis. James was the only person to speak about a local news issue which involved vandalism on a building site. James and Carol spoke of the hole in the ozone layer and Belinda and Arthur spoke of the rainforests. Caitlin spoke of debris left in space during space exploration and of the war in Bosnia causing lots of trees to be pulled down. Suzanne talked more generally of bombs "destroying everything".

PEMBROKESHIRE OIL SPILL - ENVIRONMENTAL ACCIDENT

When discussing the Milford Haven disaster, respondents did not know why the oil spill was caused, although the lack of positive responses may have been because the cause was so obvious. Two of the male respondents (Nicholas, Steve) did manage to talk about the tanker running aground. Belinda answered in a less specific way by saying that people are careless.

On differing levels, everyone spoke of the effects of the spill. All mentioned that creatures got damaged. Birds were mentioned the most (Mary, Belinda, Arthur, Johnny, Caitlin, Nicholas, Steve, Ian, Suzanne, Ruth), followed by dolphins and whales (Caitlin, Ruth), fish (Carol, Belinda) and seals, (Suzanne). Others talked more generally of animals (James) and sea-life (Nicholas), damage to the sea (Carol, Mary, Belinda, Ian, Suzanne), and damage to plants and the surrounding area (Belinda) including the long-term damage to the beaches (James).

One person spoke vividly of the clean-up operation:

> Mary   *"and erm I saw it on the TV programme there was/ erm /people like erm there was an army boat and they were like /shoveling oil into big black bags and then they had to keep shipping it over from one country to another and then it was all taken away"*

James was the only person who mentioned the related issue of the Shetland oil spill and the Greenpeace-Shell argument over the Brent Spar platform.

When asked about solutions, Carol suggested an attempt to control nature through the idea of a special sea created for oil tankers. Others (Caitlin, James) thought of ways to help which accepted nature and the weather as a power beyond the human control. For instance, James suggested that the tankers "shouldn't go to sea in rough weather." Nicholas wanted to make the bottom of the ship thicker so that a hole could not get through. Others (Ian, Suzanne), saw that spills were inevitable and unavoidable. Only Belinda questioned the very movement of the oil, seeing it as unnecessary, suggesting that there should not be a reason to sail all the way across the ocean with it.

NEWBURY BYPASS - ENVIRONMENTAL PROTEST

When I asked why the Newbury Bypass dispute was occurring, a variety of responses emerged. Some thought that human concerns lay behind the protest, for instance, Johnny mentioned protest because of a threat of new accidents caused by the new road. Nicholas thought that people were protesting because they felt that a new road would affect their sleep. Caitlin could not remember what they were protesting about. James, Arthur, Mary, all remembered that people were protesting to save the trees. Only Ian had not heard of the protest.

There was some resignation amongst the respondents who felt that these environmental issues could not be solved (Steve, Ruth). For Johnny, the road was inevitable because the contractors had government support. However, he felt that the workers paid to fell the Newbury trees should not be scapegoated for doing their jobs. Others mentioned ameliorating actions such as recycling (Mary), replanting trees (James), or building roads in more suitable places (Nicholas, Arthur), but did not challenge the structures and practices causing, or helping to cause, the problem.

Thus, the majority of the people who were interviewed individually were aware of a selection of recent environmental news items mainly through the media. However, while they had heard of many issues, they were often unsure as to the causes and consequences of the problem. This suggests the value of what the Newsround programme, outlined in *Chapter 2*, is doing, by returning to stories long after they have been moved from the major news schedules so that the story is examined for its changes and consequences.

BIAS AND REALISM

I asked during both the individual interviews and the documentary focus group whether respondents thought that the media were biased in any way, or whether they thought they gave balanced presentations. Some of the respondents in the individual interviews recognized the power of the media to shape what they viewed. There does not seem to be any organizing principles as to who found the media fair and who distrusted what they saw. In the individual interviews, Johnny, Steve, Caitlin, Carol, all felt the media to be biased. For example, Caitlin suggested that "sometimes they just make up things so they can put it in the newspaper."

James, on the other hand, thought that the media were fair. Ruth, Suzanne and Ian implied that they felt that the media show a true picture of reality, rather than one which has been constructed by sound bites and newsroom practices. For example, Suzanne felt that media coverage of environmental issues in themselves signalled severity. Ian thought that media coverage was good because you could see the events unfolding on the TV screen. Ruth made a similar response saying, "it's quite accurate because most of the things you can see." Thus for these people the visuals used in the media are very powerful, adding weight to the words of the news reader.

A similar array of answers were found in the focus group responses to the documentary. Some felt that the piece was fine (Alison, James, Kenny). In general there were no strong criticisms although people did not always fully accept all that was said (Lucy, Steve, Belinda, Carol, Steve). This suggests a healthy cynicism when watching the media although the critical emphasis was on the scientists interviewed in the documentary rather than the programme *per se*.

Ian thought that the film was idealistic because he felt that people did not behave as the documentary suggested they should. Brian voiced a concern that the fears raised by the documentary are now familiar and that he believed that they owe more to panic than to the reality of the situation.

> SCG   *And have you heard about that problem before?*
> Brian   *Yeah you hear about it all the time, it says that the world's going*
>   *to end and all that but we've been saying that for the last hundred*
>   *years or something and it's never.*

On the other hand, Wendy although initially sceptical became convinced and somewhat anxious by the video,

> Wendy   *When it says like erm/ in the year 2010 like erm London could be*
>   */overrun by water / I didnae really believe in that at the start but*
>   *then once you've seen /a wee bit through ...*

Some in Group 1 thought the video could have been more realistic by showing people dying (Beth, Arthur). This criticism was made despite their being a corpse in one scene in the video. This connects with arguments made in the cartoon focus groups for greater realism in the cartoon genre. Group 5 in particular, felt that the protagonists should not be saved by Captain Planet and that the cartoon should

have certain episodes where the bad guys were victorious, to make it more true to life.

Actual criticism of the problem areas of the documentary were few and far between, but some of the groups drew conclusions from the piece that were not directly addressed. For example in Group 3:

SCG	*ahha / did you think some of it was a bit /far fetched*
Steve	*bits of it*
SCG	*huh?*
Carol	*about the world ending / about the world ending*
Nicholas	*yeah the world ending I don't think that'll happen*

EDUCATIONAL VALUE?

Can the research video texts be considered educational? The cartoon suffered from being dismissed as 'uncool' by all but Group 5. Despite a widespread assertion that the video was suitable for a much younger audience very few of the group members were able to discuss the main themes in any depth. When I asked the groups if they learnt anything from the episode, Group 3 discussed how it was useful to learn about the desert (Brian) but not about wider issues relating to urban life (Carol). Group 5 felt that it was a relatively useful tool for environmental learning albeit for a younger audience (James, Suzanne). For slightly older youth, it was felt that a longer cinematic film format would be more beneficial (Douglas) or handling the issues in a long unfolding story told over a series of episodes (James) would be better.

The documentary was criticized for being too long and becoming boring (James, Suzanne) and because the scientific experts in the film were considered boring (Arthur). However, despite this criticism, most thought the documentary a useful tool for learning about the Greenhouse Effect, and answers were mainly positive, ranging from a straight 'yes' to seeing it as 'a wee bit useful' (Brian). Alison thought that the video should be made more interesting for younger people to watch. James even thought that it would be a useful learning device for people younger than them, even though the audience intended by the makers to be shown this video was 11-16 years.

CONCLUSION

This chapter has explored some of the respondents' thoughts and responses to environmental media. It has been framed by an appreciation of active audiences who achieve their own meanings and pleasures from media texts rather than reception being wholly ascribed by the text. While they are active viewers they may choose to be inactive as they view the media but they can never be passive - absorbing all that was programmed into a broadcast in the way in which it was intended - because the audience are not a homogeneous group but are from a kaleidoscopic mixture of social groups, backgrounds and contexts, changing over time.

The young people in this research attribute much of their knowledge about the environment to the mass media, mostly television. Despite this, some of the respondents found talking about the environmental themes very difficult in comparison to talking about the characters in the cartoon or about other programmes they had viewed.

While the cartoons were criticized for being too young, most of the respondents failed to appreciate the main theme of damage to the desert by off-road vehicles, seeing instead the pollution and destruction of animals and their habitat as the main problems caused by the vehicles. Furthermore, for some there was confusion about the actions of the heroes, as when Carol suggested that the flash flood was caused by Captain Planet, for example.

These readings of the texts confirm Buckingham's findings outlined at the beginning of the chapter that young people's own social frames and experiences are brought to bear during media interpretations. Thus, as they lack knowledge of the desert, they tend to refer to what they do know about in discussion. However, when they were pushed to answer through more direct questions in the individual interviews, there were some who could explain the desert issues clearly, as well as some who had completely forgotten the content of the cartoon.

Looking back to the programme makers' intentions (Gottlieb, 1996), did they achieve their goals? Certainly some of the respondents, particularly those in Group 5 were entertained, and awareness was raised in some of the respondents. What is

unclear is whether the programme gave the respondents any enthusiasm to go out and find out more about environmental issues, or made them feel more empowered.

The documentary was considered a bit boring and over-long. While many of the themes of the piece were picked up on, pollution and animals' needs came out strongly, even if animals were not that strong a point to the film. While one group failed to understand the global warming metaphor, other groups thought that it was a useful way to learn about climate change.

The causes of the Greenhouse Effect were cited as pollution and energy use. Other issues mentioned in the film, albeit to a lesser extent, such as methane and CFC's barely got a mention. Sea-level rise was mentioned although some saw a more destructive force than others. Drought was understood although there was some stereotyping of countries with respondents believing that farmers in Ethiopia would be worse off because it is "all dry" there. Obviously in a drought it would be dry regardless of country. While some appreciated that large populations could be a threat to the environment, some did not. When asked if we should redistribute our surplus, some respondents interpreted this as an issue of poverty or lack and suggested that the West should send car companies over to these countries or that they should make their own. However, there were some suggestions not considered in the film like inventing environmentally-friendly cars. There was a debate about giving up luxuries for the sake of those without. Some respondents were happy to do this in principle, believing that people all over the world should have the same rights, and be afforded the same (consumer) opportunities.

Respondents mentioned solutions from the film such as wind and water power and using less electricity, along with some more unusual ones such as 'screaming at mum to get rid of the fridge' although this might be linked to the use of climate-damaging CFCs in refrigerators.

In the individual interviews, many knew of environmental issues in the news and could talk about them, although they were often unsure about the reasons behind issues. For instance, in the case of the Newbury Bypass (a good example because it isn't a disaster *per se* but a difference of opinion) some of the young people did not know what the protest was about. This is important because it shows how valuable the young people's programme of Newsround is because of its lengthy coverage of issues.

There was a broad range of issues cited when the young people were asked to name issues which had recently been in the news. Some of these issues, such as destruction caused by bombing, illustrate (as *Chapters 4* and *5* have done), the wide ranging interpretation of environmental issues.

Overall, the young people were articulate about pollution and expressed great concern for animals prioritized over human welfare in discussions. The strong focus on animals suggests a great concern for, and feeling of responsibility towards, them. For instance, in the documentary although few animals were included in the film, on occasion, animals were cited by respondents before they mentioned humans.

When asked if they thought the documentary and news coverage of environmental issues was biased, there was a variety of opinions. Some people suggested that the media would fabricate a story for news purposes. Others suggested that visual footage showed the event happening meant that the stories were accurate.

Thus, the media are an important and valuable source of information about environmental issues. However, they are not watched in social isolation or acted upon necessarily, as noted by Stevenson:

> "people do not evaluate arguments in a vacuum but in the context of a set of beliefs and values that they have about the world ... People persist in their beliefs frequently in the face of evidence to the contrary" (1992:215).

The discussions were very much tied to respondent's own thoughts and experiences rather than being framed solely by the issues contained in the text. Also, the films were not uniformly focused upon when viewed, providing evidence of differential viewing which seemingly goes beyond any social categories.

CONCLUSION

Awareness of the modern environmental crisis originates from the late 1950's. Since then, public concern has ebbed and flowed. In the 1980's, awareness of widescale environmental problems, particularly of the weakened ozone layer and the Greenhouse Effect, created public concern for environmental damage. This concern emerged in many social echelons leading to international summits, eco-products and recycling drives, and pressure groups where the new protest action of late twentieth century society has moved people to tunnel underground and live in trees to protect the land from development.

The move to modernity from pre-industrial society radically changed the social, political, economic and cultural landscape in a relatively short period. The environment also changed: human settlement became concentrated in expanding urban areas; human usage of natural resources increased too rapidly for nature to restock the larder; and by-products of this over-consumption were too great for nature to clear. Science developed new technology and resources to end the depletion, but these too have had side-effects. As Rachel Carson (1963) so effectively communicated to the world, pesticides may allow better crops yields in the short-term but they destroy surrounding plant and animal life and enter the food chain. The globalizing tendencies of modernity has intensified these problems and distributed them widely.

Over the course of a few hundred years, young people who had worked alongside their family in the home and then the factory became increasingly separated from adults, spatially, economically and culturally: through compulsory schooling, loss of wages, and through the growing cultural sphere which demarcated childhood away from adulthood.

In late modernity, there has been suggestion (Beck, 1992, Giddens, 1991) that young people are experiencing unique lives in comparison to their ancestors. These theories

over-emphasize the degree to which social change has reduced social inequality (Furlong & Cartmel, 1997). It cannot be denied that change has occurred. However, it is misplaced to assume that change has diminished social inequality leading to a monogenism of social experience resolving social structuring such as class.

This thesis has rejected epistemological developmental frames for young people which convey childhood as pre-ordained and universal. Instead, the conception of young people has been established by adopting the focus of interactionism, which emphasizes the variance and experience of young people. Simultaneously, however, the thesis rejects any attempt to analyze young people outwith their place in the social structure which so effectively delimits their power and agency.

Late modernist thought has assisted the deconstruction of childhood by rejecting the modernist epistemological approach of seeking scientific laws to locate and chart the 'truth' of the world. The growing disillusionment with singularity of truth in scientific explanations has led the way, in the late twentieth century, for a variety of understandings based on subjective and contextual knowledge. Understanding is derived by moving outwards from within, rather than by focusing in from without.

In the methodological focus of this research, young people have been placed alongside adults. I have argued that although they do differ from adults, young people also have much in common with them. While I acknowledge that with younger people there might be too great a variance between researcher and respondent in terms of, for example, language, I also suggest that much research with young people underestimates their competence. Furthermore, when researching adults there is often an assumption that mutual comprehension occurs by virtue of researcher and respondent's adult status.

Asymmetrical power relations experienced between young people and adults potentially affect data collection. Therefore I attempted to lessen the effect of researcher power on proceedings by remaining non-authoritarian throughout, explaining the research process, and by emphasizing that respondents did not have to take part or respond to questions if they did not wish to.

While surveys on the social demographics of environmental concern have failed to account effectively for the social patterning of those most concerned about the environment, I believe that there is a lack of complexity and commensurability in

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these studies because they vary so tremendously in their focus across topic and over time.

The mixed methods used in this research have aimed to discern a broad picture of environmental concerns, everyday actions, and an understanding of what young people think about media that features environmental issues. As the ethos of non-participation established in this research has led to people remaining silent in response to some of the questions, using a variety of methods enabled data to be drawn in different contexts, allowing people to respond on different occasions, when and if they chose to. A fuller set of responses could have been achieved by demanding that people answer the questions, or by using a more highly structured and closed methodology. This though would have compromised the ethos of the research and undermined the authenticity of responses, coerced by the researcher or limited by the closed methodology, rather than being flexible enough to gather expressions of environmentalism originating in the respondents.

Importantly, the thesis approaches the perceptions and actions of environmentalism, in-depth and from the perspective of the young person. In the past, young people have been ignored by researchers because they have been framed from the developmental canon which posits that all young people are on a similar course of development - the 'ask one and you've asked them all' approach - coupled with a view that young people are incapable of holding opinions worth listening to. This canon has been deconstructed towards a more open, contextualized knowledge and has meant that a variety of viewpoints and 'realities' are acknowledged and encouraged.

Out of the social, political, economic, and environmental changes in modernity, young people have emerged, in some minds, as the environmental power of the future. They are seen as the people who, after a lifetime shared with new knowledge of severe environmental problems, will focus on ameliorative measures. Ultimately, this thesis considers how realistic this expectation of the future is? On the basis of their current lives, can young people be said to have the interest, appreciation and providence to make the changes needed in the future?

This thesis has charted the lived social experience of environmentalism for young people, identifying the strands of interest and motivation they encounter as they move about their social worlds: between school and home, family and friends; in

peer groups and when shopping, and through the consumption of environmental media fare. It has identified the range of responses that young people make when they view media about the environment; important given the immensity of the media as sources of environmental information. While the research could have focused on the positive work being conducted toward environmental action and education, through community recycling schemes and special educational programmes, this research sought to locate the worlds of everyday people aside from exceptional schemes available to a minority of the population.

Most of the respondents in this research reported a slight or strong interest in environmental issues, with girls being more interested than boys. Both local and global environmental issues were selected for severity, although global issues were considered to be of greater severity. Local issues considered particularly severe were litter, dog dirt, traffic and endangered wildlife. While girls thought litter was the more severe issue, boys rated endangered wildlife to be of greater severity, by a slight margin of concern. Global issues considered to be most severe were: the hole in the ozone layer, unclean drinking water, and animal extinction. Boys ranked ocean pollution, rainforest destruction and animals extinction to be of equal severity whereas for girls, the most serious problem was ocean pollution.

Despite the small numbers used in this qualitative research, many of the findings relating to interest, link directly to those from large scale surveys. Both at a global and a local level were considered severe by the respondents. These findings match broader surveys of perceptions of the depth of problem, despite, for local issues, the difference of locale. Issues added to the questionnaire list by the young people suggested that they place a broad range of problems under the environmental canopy such as bombs and war, smoking, and vandalism of property.

None of the young people were found to be more interested in environmental issues than their parents - although the skewed parental sample must caution against drawing any firm conclusion from this. This is of interest given that young people are often conveyed as having more environmental knowledge and interest than the majority of adults. If further research confirms the finding that young people are no more concerned than anyone else about the environment, then optimistically targeting them as 'the future' may result in a future much the same as the present.

The questionnaire data initially indicated that the young people predominantly thought that everyone was responsible for dealing with environmental issues. However, the focus groups and individual interviews indicated a more complex picture. In this context, the respondents acknowledged the role of institutions and organizations such as the council or the government in bringing to an end planetary destruction.

While much of the rhetoric regarding environmental solutions is based on individual responses, and whilst young people have been found to perceive ameliorative actions on an individual level (Gauntlett, 1996; 1997), the young people in this research acknowledged the effective and powerful role that the democratic bodies could play. This finding is in keeping with Sørgaard & Lyngstad (1994) who concluded that young people are aware of potential meso- and macro-levels of pro-environmental power.

When asked why environmental problems occurred and how they could be solved, young people were more likely to express simple statements relating to human nature or weakness such as greed, stupidity or thoughtlessness. However as *Chapter 4* argues, the broad meaning of their responses is obscured by the common use of the expression of 'people,' for example, in the expression, 'people should stop starting wars."

Amending actions suggested for the cessation of environmental destruction were the creation of rules and penalties incurred for environmentally-damaging behaviour, changing people's behaviour partly through education, and by correcting the damage.

Responses to the questionnaire revealed disparate forecasts of the future. Some respondents saw the future as improving, whilst others believed it would worsen. Slightly more boys than girls saw it pessimistically. In the focus groups, a stronger sense of pessimism emerged. In comparison, parents, particularly those who were 'very interested' in the environment, thought the future would see greater environmental degeneration.

Overall, the young people conveyed a feeling of powerlessness and predetermination about environmental problems. Campaigning for environmental

change was not considered to be of much value by the young people who saw marching, signing petitions or the activities of pressure groups as ineffective.

The previous points coupled with the lack of knowledge of environmental pressure groups displayed by the respondents, would seem to suggest that it might be advisable for pressure groups to target young people so they know the wide range of issues that pressure groups deal with, rather than their only knowledge stemming from protests seen on the TV screens. Additionally, it might be worth pressure groups while to tackle local environmental problems, because at present the girls and boys in this research are very aware of global environmental problems and think that environmental problems are more serious elsewhere. It would seem that a good way to encourage long-term pro-environmental values is to give young people more information about environmental problems, encourage participation in ameliorating schemes, and provide the opportunity to see the effectiveness of their actions and opinions within these schemes.

These feelings of fragmentation of concern may reflect discussion of the individualizing of politics by the loss of traditional class political allegiances following the restructuring of the industrial landscape in late modernity. Beck (1992) and Giddens (1991) note how people are unhooked from traditional class furrows of support. A more feasible explanation is posited by Furlong and Cartmel (1997) who negotiate class-based stratification back into the frame by noting the concealed social concentration of people who have corresponding concerns:

> "Life in late modernity revolves around an epistemological fallacy. The paradox of late modernity is that although the collective foundations of social life have become more obscure, they continue to provide powerful frameworks which constrain young people's experiences and life chances. Over the last two decades a number of changes have occurred which have helped to obscure these continuities, promoting individual responsibilities and weakening collectivist traditions" (Furlong & Cartmel, 1997:109).

Furthermore, the school, or some other body, also needs to educate not just about the environment, but about democracy, and representation, and procedures of complaint, so that rather than simply 'shopping for the environment,' people may begin to think of alternative avenues to voice their concerns.

The findings suggest some gendered thinking with regard to environmental issues. Boys were more likely to think that we should be concerned about issues closer to

home than environmental problems elsewhere in the world. When asked if people would become hostile or co-operate following severe environmental damage in the future, girls thought that people would co-operate more whereas boys thought that people would grow more hostile. Significantly, there is an indication that environmental interest overturns these gendered responses. Thus while these gendered responses are supportive of Gilligan's (1982/1993) theory of the divergent moral reasoning of boys and girls, many of the responses are more complex, evading such easy coincidence.

For instance, when asked 'who could help environmental problems', in the questionnaire, girls overall suggested 'all of us', while boys gave a broader range of responses. While this, in itself, could indicate the webbed and hierarchical thinking that Gilligan assigns to girls and boys respectively, interview data overturns this analysis because both boys and girls propose institutional solutions such as the government and council.

When trying to affirm Gilligan's theory in my data I found some disjunctures where people thought in both the care and the justice voices that she proposes. For example, James at one point said that he was concerned about the well-being of animals, and thought that animals should be considered when human colonization of their habitat is proposed. However, on another occasion he expressed concern only for his pet, excluding all other animals. This would seem to support Hekman's (1995) move to take Gilligan's work beyond the confines of gender acknowledging many subjectivities based on context and other factors aside from gender.

While a great deal more research could be conducted focusing directly on Gilligan's theory of gendered morality and environmentalism, the inapplicability of her theories to my data suggests that a complex range of thinking occurs relating to environmental concerns, and that in itself is an exciting prospect for future research.

When examining the day-to-day environmentalism in young people's lives, the research discovered that despite widespread concern for environmental issues, little is done at home, in school, with youth groups and with friends to alleviate environment problems.

Most homes performed very few pro-environmental activities. Twenty of the group indicated in the questionnaire either no response or that nothing was done in their

home to help the environment. Of the 8 people who reported behaviour, these centred on recycling and keeping their home and surrounding area tidy. However, there was some indication of disparities between parent and child estimations of domestic pro-environmental behaviour, suggesting differing perceptions and behaviour; the 'portraits of environmentalism' in *Chapter 5* clearly show these differences, for instance.

These differing impressions suggest that domestic pro-environmental action should not be considered solely under the spotlight of a unified household. Instead, intra-familial distinctions need to be drawn about the types of behaviour that are taking place. These conclusions suggest that future research should explore in some depth the variations in environmentalism within a household. Furthermore, it would be interesting to target the reasons why people undertake pro-environmental behaviour and how they think the planet will benefit through this.

Surprisingly, only a few of the young people knew if their friends were concerned about the environment. This suggests a lack of discussion about environmental issues and clearly highlights the overall absence of pro-environmental behaviour in my findings. Surely if young people did act to help the environment, they would discuss it with their friends.

Fewer still of the respondents had done anything with their friends to help the environment. As noted in the 'portraits of environmentalism', some young people have initiated pro-environmental behaviour free from the adult gaze by creating leaflets and putting on plays in the community. However, this is unusual for most of the group.

Even with the organizational backing, support and social power of adults, youth groups failed to promote environmental issues in their activities. Although some clubs would not find such an inclusion easy, clubs that could incorporate environmental issues into their activities, have failed to do so. With information gathered from the Department of Environment (1993) survey about the positive response of young people to the formation of a club centred on the environment, there would seem to be scope for this type of club to be established effectively. This would also seem to suggest that there needs to be a greater active tapping of environmental concern, so that those who are concerned do not feel a sense of resignation and helplessness about environmental problems, as the respondents in

this research currently feel. This need to be combined with accurate information to build long-standing environmental knowledge.

Four out of 14 of the parents could be considered environmentally active. However this does not seem to had made much impact on their children. As Tables 6.8 and 6.9 indicate, little is evinced to separate those young people with active parents and those without.

For most of the parents their 'environmental activism' consisted of watching TV programmes about the environment or walking in the countryside. Of those parents who had been more active, one had become involved on a community level, another on a political level, and a few had made choices about environmentally-friendly transport and domestic recycling.

The organization, structures and opportunities are not really in place to encourage young people to become environmentally active in their everyday lives. Despite this, some young people have become concerned about environmental issues without adult support. While the rhetoric of 'children as the future' implies that, as adults, the young people of today will be more effective advocates for the environment, their behaviour within their current everyday worlds does not warrant such predictions.

Chapter 7 discussed the interpretations made by the young people of media containing environmental themes. Although some people had experience of environmental damage, for example, by swimming in the polluted sea, by far the most common source of environmental information was the media. The mass media undoubtedly play a immense part in raising awareness of environmental degradation, particularly global issues.

In keeping with the acknowledgment of multiple subjectivities in late modernity, contemporary research of the media focuses attention onto audience reception, rather than on a single reading contained within the text. This move signals an appreciation of media texts as having diverse readings depending upon the social biography of the audience. This approach has been useful within research about environmental media fare. For example, research by Burgess et al (1991) has noted of environmental texts that those in their study discussed and used the media differently depending upon their environmental interest.

The cartoon used in this research was considered too young for them by most of the respondents, although one group (Group 5) enjoyed it and said that they would watch it if it was still on. Despite having outgrown the series, however, the majority of the respondents failed to discuss in any detail the main issue of desert damage by vehicles, dealt with in the text, instead discussing other issues dealt with in the video such as pollution and damage to animals and their habitat.

This would confirm Buckingham's (1993a) finding that young people, rather than being dictated to by the media text, draw on their own social frames and experiences when interpreting media. Thus, as the respondents, for the most part, lacked knowledge of the desert, they tended in discussions to refer to the themes that they did know about such issues as pollution and animals. Furthermore, that some people in the individual interviews could discuss the themes of the cartoon, whilst others had no recollection, suggests that media viewing (and memory of that viewing) is an activity that operates on differing individual levels of attention.

The Greenhouse Effect documentary was considered rather long and boring by many respondents. When asked about the piece many people focused on pollution and animals, even though animals had only made a very limited appearance in the film.

In the focus groups, the causes of the Greenhouse Effect were cited as pollution and energy use. Other issues mentioned, albeit to a lesser extent, in the film (such as methane and CFCs), barely got a mention from the respondents. The film discussion of sea-level rise was mentioned in the focus groups although some saw this as a much more destructive force than others.

Many comprehended the film's discussion that if large developing populations seek western-style consumerism and over-consumption then this could have a significant impact on the environment. Some suggestions were raised which had not been considered in the film like inventing environmentally-friendly cars. Others, though, when they were asked if the West should redistribute surplus goods to prevent further resource depletion, took it as an issue of poverty or lack of availability suggesting that Western companies should establish a base in developing countries or that people in these countries should make their own goods.

Some Greenhouse Effect solutions suggested by the respondents were mentioned in the film such as wind and water power and using less electricity. Other responses

were more unique such as 'screaming at mum to get rid of the fridge' although this response might be connected to the environmentally damaging use of CFCs in refrigerators.

Although the documentary detailed the causes and the consequences of the Greenhouse Effect, one group failed to appreciate the metaphor, thinking that it is greenhouses that are affected. One person in the group had expressed a similar misconception prior to the video. In spite of everything that was shown in the film, this group made no move beyond the ideas that they went into the group with. This highlights the strength of the theoretical focus on the varieties of audience interpretation and decries those who suggest that the content of media can have so powerful an effect on young people that it leads them to violence.

In the individual interviews many respondents knew of environmental issues in the news and could talk about them, although they were often unsure about the reasons behind issues. For instance, in discussion of the Newbury Bypass - a good example because it is not a disaster *per se* - some of the young people did not know what the protest was about. This is significant because it shows how valuable the young people's TV programme Newsround is with their continuous coverage of issues that have long left more traditional news broadcasts. This emphasizes that as Hausbeck, Milbrath & Enright suggest "although students can, and sometimes do, learn environmental concepts and subject matter from television, they may also pick up awareness and concern without understanding the issues" (1992:31).

When asked if they thought the documentary and news coverage of environmental issues was fair and accurate there was a variance of opinion. Some people thought that they were biased, believing that journalists sometimes make up stories. Others thougnt that the use visual images in TV news meant that the story was true because it could be seen.

Thus, the media are an important and valuable source of information about environmental issues. However, they are not watched in social isolation and do not necessarily have any impact. Stevenson notes that "people do not evaluate arguments in a vacuum but in the context of a set of beliefs and values that they have about the world...People persist in their beliefs frequently in the face of evidence to the contrary" (1992:215). This has been borne out in my research.

However, despite this, there is a degree to which media coverage enables the shielding of broad social change to help the environment. As Gauntlett (1996, 1997) has noted, media responses to the environment do not encourage collective action or change at the structural level but are "disengaged from effectively focused action" (1996:149) by promoting individual solutions such as recycling.

Gauntlett suggests that the videos individualized approaches to environmental problems emerge from the 'hegemonic bending' of media messages commonly broadcast:

> "In modern industrial societies, media content, whilst not necessarily *excluding* contentious issues, may deliver accounts of them which bend in favour of hegemonic stability by focusing on people, as autonomous individuals, rather than on institutions and the social-structural foundations underlying individual behaviour" (1997:20).

That young people are concerned about the environment is very important. That they believe, in the main, that we should all input into remedying environmental issues is also vital to keep interest afloat. However as Stannistreet & Boyes (1996) caution "those problems which are the responsibility of everybody are those which are the responsibility of nobody" (1996:38). Furthermore, as O'Brien suggests, it is not enough to focus on one level of action alone,

> "Changing values requires action at the institutional, personal, political and economic levels simultaneously. A strategy for changing personal values needs to be accompanied by the development of social contexts in which those changed values can be meaningful to and useful for people. The arts of persuasion may be powerful, but they are not, on their own, powerful enough" (1995:168).

Certainly as Gauntlett and others have suggested the treatment of the media has been prone to focus on individual action, encapsulated in the catch-phrase of Captain Planet and the Planeteers " the power is yours!" Furthermore much of what young people watch does not inspire them to believe that their own actions will be beneficial:

> "People are not shown as active agents of their destiny but rather as reacting to the inevitability of 'human nature' or 'technological progress' not actively created but rather passively anticipated" (Hicks & Holden, 1995:12-13).

This leaves them feeling powerless in the face of rhetoric which tells them that their interest is important for the future but that whatever they do it will be too late because 'you cannae stop the future':

> " 'You're wrong,' said Sly quietly, 'The earth isn't going to die unless you stop it.'
> 'Oh yeah well you would say that wouldn't you,' Rachel sneered. 'You've got a vested interest in carrying on fucking it up.'
> " 'You're wrong,' continued Sly, 'because it's going to die anyway.' It's virtually dead already, and there is absolutely nothing that you or I or anyone else can do about it. The earth is going to die' " (Elton, 1989:331-332).

Appendix 1: The Research Group

Group 1	Level of Env. Interest	Individual Interview	Parental Questionnaire	Additional Comments
Pamela	1		✓	
Beth	1		✓	
Arthur	1	✓		
Kenny	5		✓	
Caitlin	1	✓	✓	

Group 2	Level of Env. Interst	Individual Interview	Parental Questionnaire	Additional Comments
Belinda	2	✓	✓	Moved to Gp. 6 for documentary
Wendy	1			
Darren	2		✓	
Lucy	2		✓	
Steve	2	✓		

Group 3	Level of Env. Interest	Individual Interview	Parental Questionnaire	Additional Comments
Carol	2	✓	✓	
Sarah	2			Opted out of documentary
Christine	2			
Brian	2			
Nicholas	2	✓		

Group 4	Level of Env. Interest	Individual Interview	Parental Questionnaire	Additional Comments
Alison	2		✓	
Mary	2	✓		
Tina	2		✓	
Ian	2	✓		
Marie	1			

Group 5	Level of Env. Interest	Individual Interview	Parental Questionnaire	Additional Comments
James	3	✓	✓	
Suzanne	2	✓		
Catherine	5			Moved school before documentary
Douglas	5		✓	

Group 6	Level of Env. Interest	Individual Interview	Parental Questionnaire	Additional Comments
Ruth	2	✓		
Kelly	3			Moved to Gp. 5 for documentary
Frankie	4		✓	
Johnny	3	✓	✓	
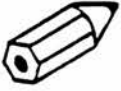
START HERE: This is not a test. There are no right or wrong answers so you can say what you really think. No-one, not even your teacher, will read what you write, except me. If you do not want to answer any of the questions you do not have to.

(1)   Name   ....

(2)   Write down what sort of things you like to do when you are not at school.

....

....

....

I am interested in what <u>you</u> think about the environment and the world in which we live. The environment is made up of all living things on Earth - plants animals and people - and what they need to live. Environmental problems often happen when our natural world is changed.

(3)   Can you think of any environmental problems? Write here up to three problems you know about.

....

....

....

(4)   How interested are you in the environment and environmental problems?

Tick ✓ here to show how interested you are in the environment :
- ❑   Very interested
- ❑   Slightly interested
- ❑   Not very interested
- ❑   Not interested
- ❑   Not Sure / Don't know

N.B. The questionnaire has been reduced in size to fit the specifications for the thesis margins.

FINDING OUT ABOUT THE ENVIRONMENT

(5)   Where do you find out about environmental problems? Write a list of any of
       the ways you find out about environmental problems.

....

....

....

....

Now draw a **star** ☆ next to the one from which you think you find out the most
about environmental problems.

(6)   When you hear about environmental problems how do you feel?
       Tick ✓ either <u>always, often, just once or twice, never</u> or <u>don't
       know/not sure</u> to show how you feel or how you have felt about
       environmental problems.

	Always	Often	Just once or twice	Never	Don't know or Not sure
Excited	❏	❏	❏	❏	❏
Angry	❏	❏	❏	❏	❏
Worried	❏	❏	❏	❏	❏
Bored	❏	❏	❏	❏	❏
Frightened	❏	❏	❏	❏	❏
Happy	❏	❏	❏	❏	❏
Sad	❏	❏	❏	❏	❏

LOCAL ENVIRONMENTAL PROBLEMS

(7)   From the list below tick ✓ how serious you think these problems are as local
       environmental problems near to where you live.

	Very serious problem	Slightly serious problem	Not a very serious problem	Not at all a serious problem	Not a problem	Don't know
Litter	❑	❑	❑	❑	❑	❑
Traffic	❑	❑	❑	❑	❑	❑
Too many plants	❑	❑	❑	❑	❑	❑
Wildlife in danger	❑	❑	❑	❑	❑	❑
Not enough roads	❑	❑	❑	❑	❑	❑
Factory Pollution	❑	❑	❑	❑	❑	❑
Dog Mess	❑	❑	❑	❑	❑	❑
Too many animals	❑	❑	❑	❑	❑	❑
Not enough plants	❑	❑	❑	❑	❑	❑
Too much noise	❑	❑	❑	❑	❑	❑
Water tastes bad	❑	❑	❑	❑	❑	❑

Or something else? Write here if you can think of any other local environmental
problem, near to where you live ....

(8)   If you think that one of the problems above is a more serious problem than
       the others, place a **star** ☆ next to it.

(8a)   Write here if you can think of why this problem happens.
....
....
....
....

(8b)   Write here if you can think of anything that could be done to help this
       problem.
....
....
....
....

WORLD ENVIRONMENTAL PROBLEMS

(9) From the list below tick ✓ how serious you think these problems are as environmental problems <u>throughout the world</u>,

	Very serious problem	Slightly serious problem	Not a very serious problem	Not at all a serious problem	Not a problem	Don't know
Destruction of tropical rainforests	❑	❑	❑	❑	❑	❑
Damage to the ozone layer	❑	❑	❑	❑	❑	❑
Oceans being polluted	❑	❑	❑	❑	❑	❑
Animals becoming extinct	❑	❑	❑	❑	❑	❑
Too many people	❑	❑	❑	❑	❑	❑
People not having enough to eat	❑	❑	❑	❑	❑	❑
People not having clean water	❑	❑	❑	❑	❑	❑
Damage to the desert	❑	❑	❑	❑	❑	❑
Global warming	❑	❑	❑	❑	❑	❑
Not enough space to build roads	❑	❑	❑	❑	❑	❑
Acid rain	❑	❑	❑	❑	❑	❑
Nuclear power	❑	❑	❑	❑	❑	❑
Mad Cow Disease	❑	❑	❑	❑	❑	❑
Nuclear and toxic waste	❑	❑	❑	❑	❑	❑
Treatment of animals by humans.	❑	❑	❑	❑	❑	❑

Or something else? Write here if you can <u>think</u> of any other serious environmental <u>problems in the world</u>   ....

(10) If you think that one of the problems above is a <u>more serious</u> problem than the others, place a **star** ☆ next to it.

(10a)   Write here if you can <u>think</u> of why this problem happens.

....

....

....

(10b)   Write here if you can <u>think</u> of anything that could be done to help this problem.

....

....

....

(11) Who do you think should <u>most help</u> to stop environmental problems?

Tick ✓ <u>one</u> box to show who you think should <u>most help</u> :

❑   No-one

❑   All of us

❑   Grown ups

❑   Children

❑   Local community groups

❑   John Major and the government

❑   United Nations

❑   Blue Peter

❑   Greenpeace and Friends of the Earth

❑   Industry and businesses

❑   The people who cause environmental problems

❑   The police

❑   Not sure/ Don't know

❑   Or someone else? Write here if you can think of someone else who

should help the most   ....

HOME AND FAMILY

(12) Is anything done in your home to help the environment? If it is, write here up to three things that are done in your home to help the environment. If nothing is done, write <u>nothing</u>.

....

....

....

(13) Who in your home do you think does the most to help the environment? Write here who it is. If <u>no-one</u> does anything to help the environment, write <u>no-one</u>.

....

(14) When you are shopping do you ever buy, or ask members of your family to buy, things because they are 'good' for the environment?

Tick ✓ either: ☐ Yes   ☐ No   ☐ Not sure or Don't know

(15) If you have answered YES write what sorts of things you have bought or asked to be bought while you have been out shopping.

....

....

FRIENDS

(16) Are any of your friends concerned about the environment?

Tick ✓ either: ☐ Yes, lots   ☐ Yes, some
                   ☐ No, none of them   ☐ Not Sure or Don't know

(17) Are you more or less concerned about the environment than your friends?

Tick ✓ either: ☐ More concerned.
                   ☐ Less concerned.
                   ☐ About the same.
                   ☐ More concerned than some friends but less
                      concerned than others.
                   ☐ Not sure or Don't know

(18) Is there anything that you have ever done with your friends to help the environment?

Tick ✓ either: ☐ Yes   ☐ No   ☐ Not sure or Don't know

(19) If you have answered YES and you and your friends have done something to help the environment, write here what you have done:

....

....

....

....

CLUBS AND SOCIETIES

(20) Are you a member of any clubs, groups or societies, for example, Football Club, Brownies, Cub Scouts, Young Ornithologist Club? If so, write here which ones:

....

....

....

(21) If you are a member of any clubs, groups or societies have you ever talked about, or done things to help, environmental problems?

Tick ✓ either: ❑ Yes   ❑ No   ❑ Not sure or Don't know   ❑ Not a member

(22) If you have answered YES then write here what sorts of things that you have talked about, or done to help, environmental problems.

....

....

....

23) In the future do you think that environmental problems will get better or worse or stay the same?

Tick ✓ either: ❑   Much better
                    ❑   Slightly better
                    ❑   Stay the same
                    ❑   Worse
                    ❑   Much worse
                    ❑   Not sure/ Don't know

Thank you very much for your help.

Is there anything else you would like to say about environmental problems? If so, please write it here

....

....

....

....

Appendix 3a: Most Serious Local Environmental Issue

NAME	PROBLEM	CAUSE	SOLUTION
Catherine	Wildlife in danger	because we are not perfect	be more careful at all times
Caitlin	Not Specified	Because of cars and litter and people who don't care about the world it's not just animals in danger it's us as well because you can get very bad health with care fumes	Not Specified
Ruth	Too much traffic	Because I live in the town besides the castle and everyone passes to get to Princes Street or people want to see the castle	Not Specified
Nicholas	Vandalism and smoking	Because people could die	Ban smoking
Tina	Litter	when we put our black bags at the bottom of the stair at night the dogs tear them and the bin men won't pick them up	Dog owners should go outside with the dogs.
Belinda	Traffic	Because people are making new and faster cars and people who buy them are going too fast	Somehow try to get drivers to realize that speed can kill or badly injure someone.
Frankie	Not Specified	Not Specified	plant more trees
James	Not Specified	People take their cars on short journeys and they drop lots of litter	Some people could use a bike if they have one. They could also not drop lots of litter.
Christine	Wildlife in danger	Because people kill them for meat, ivory, fur and more.	Not Specified
Steve	Factory Pollution	Because some people in the environment are not bothering and are not taking it serious	Not Specified
Marie	Not Specified	Because some people always be angry with another person	My math sometime be done

Wendy	Dog Mess	People aren't educated about the environment and they don't realize that it can harm your children	The local leisure centre could hold talks about it
Arthur	Litter	There are no litter bins where I live	Put some litter bits in the area and fine if the police catch someone littering.
Mary	Litter and Dog Mess	Litter is a problem because people just throw litter on the street. Dog mess is a problem because there are lots of stray dogs and people walk dogs along the street	Fine of money could be put out for dog mess and more bins for rubbish even on eat the bus stop
Alison	Wildlife in danger	Because some people don't think of what they are doing and just go ahead and shoot animals for instance, the elephants which are getting killed for their tusks.	People should think what they are doing before they do it.
Carol	Litter	Because people are too lazy to find a bin so they just throw it away	Tell the men that sweep the pavements to do a better job.
Ian	Not Specified	Too much cars and trees are getting cut down	Less people drive cars and do not cut down trees for paper.
Kelly	Wildlife in danger	The problems start because nobody cares about the environment	If people took care of the environment and never put rubbish everywhere, wildlife would not be in danger
Beth	Traffic	Too many people have cars and in the rush hour they all drive them to work	Some people could ride bikes or stop taking cars on short trips.
Lucy	Wildlife in danger	Because some people are bad and some people are good	You could shut down pollution factory's, pick up your dogs mess, if you are there. You could stop hunting down animals and let them live life like us.
Darren	Not Specified	Not Specified	Change the law

Appendix 3b: Most Serious Global Environmental Issue

Name	Global Problem	Cause	Solution
Caitlin	Damage to the Ozone layer, Global warming, Nuclear Power, BSE	Not Specified	Everybody can stop throwing rubbish away out into the parks roads, and schools, and people can stop letting their dogs doing the toilet in places like parks.
Ruth	Sea Sewage	because people dump their rubbish in the water and that hurts humans and animals	people should put their rubbish in the bin and not on the ground or in the sea
Nicholas	Toxic and waste of paper	Do not know	Ban toxic
Tina	Damage to the ozone layer	We don't look after the world	I think we should try to become more involved
James	Damage to the ozone layer, people starving, people not having clean water, global warming	Because people start wars and they get very greedy and lots of people get not enough to eat	People could stop starting wars.
Christine	Damage to the ozone layer	Because of pollution rising and made a hole in the ozone layer	Not Specified
Steve	Human treatment of animals	because if humans would stop treating the world badly then it would be fine	The people in the factory could stop putting all the pollution in the air and the cruel people could stop killing the animals and let them live their lives
Wendy	People not having clean drinking water	Because people take one of small scale water streams that meet up with larger ones	People could take care of the water we have to drink
Alison	Human treatment of animals	Because people use too many sprays	All the sprays and things that have been tested on animals should stop.
Ian	Not Specified	Not clean water, damage to the ozone layer	Don't pollute
Kelly	Not Specified	Not Specified	People stop polluting the world

Beth	Damage to the ozone layer	There is too much pollution from factories and cars all over the world. And from sprays containing CFC's	People could use ozone friendly sprays and not take cars out so much
Lucy	Human treatment of animals	Because people don't look after their animals so they are becoming extinct	Turn man and woman good
Suzanne	Human treatment of animals	Because some people think it's fun	Not Specified
Sarah	Human treatment of animals	People think it's fun to hit animals and treat them badly.	Not Specified

Appendix 4: Questionnaire for the Parents

> Please remember that you do not have to answer any of the questions. However, no-one other than me will see the information on this form - any information that you give will be treated with complete confidentiality.

First some facts about you:

(1)   What is the name of your child who attends Primary 7 at primary school?

....

(2)   What is your relationship to this child? e.g. parent, step-parent, grandparent

....

(3)   Your Sex.   Tick ✓ either: ❏ Male   ❏ Female

(4)   Your Age. Tick ✓ either   ❏ 25-34   ❏ 35-49   ❏ 50-64   ❏ 65+

(5)   Your Marital Status

Tick ✓ all that apply:
- ❏   Single (Never Married).
- ❏   Living with Partner/Spouse.
- ❏   Separated/Divorced.
- ❏   Widowed.

(6)   How many children live in your house?

Tick ✓ either: ❏ None   ❏ 1 ❏ 2 ❏ 3 ❏ 4 ❏ 5 or More

(7)   Write here the age and sex are these children?

Child 1	Age	Male / Female
Child 2	Age	Male / Female
Child 3	Age	Male / Female
Child 4	Age	Male / Female
Child 5	Age	Male / Female

(8)   Besides you and your spouse/partner, how many other adults (over 16 years old) live in your house?

Tick ✓ either: ❏ None   ❏ 1 ❏ 2 ❏ 3 ❏ 4 ❏ 5 or More

N.B. The questionnaire has been reduced in size to fit the specifications for the thesis margins

Now I would like to ask you some questions about the environment.

> The environment links all living things on Earth. Without it there would be no plants, animals or people. Environmental problems often happen when our natural world is changed, even damaged. These problems often happen because of the actions of people.

(9)   Write here any environmental problems that you have heard about.

....

....

....

(10) Write here, which, if any of these environmental problems, particularly worry you?

....

....

....

(11) How interested are you in the environment and environmental problems?

     Tick ✓ here to show how interested you are:

          ❑   Very Interested

          ❑   Slightly interested

          ❑   Not very interested

          ❑   Not interested

          ❑   Not Sure / Don't know

LOCAL ENVIRONMENTAL PROBLEMS

(12) From the list below tick ✓ how serious you think these problems are as <u>local</u> environmental problems <u>near to where you live</u> in Edinburgh.

	Very Serious Problem	Quite Serious Problem	Slightly Serious Problem	A Minor Problem	Not A Problem	Don't Know
Litter	❑	❑	❑	❑	❑	❑
Traffic	❑	❑	❑	❑	❑	❑
Wildlife in danger	❑	❑	❑	❑	❑	❑
Not enough roads	❑	❑	❑	❑	❑	❑
Factory pollution	❑	❑	❑	❑	❑	❑
Dog Mess	❑	❑	❑	❑	❑	❑
Not enough plants	❑	❑	❑	❑	❑	❑
Too much noise	❑	❑	❑	❑	❑	❑
Water tastes bad	❑	❑	❑	❑	❑	❑

(13) Write here if there are any other local environmental problems near to where live in Edinburgh, which are not on the list?

....

....

(14) Write here if you think that one of the problems above in Questions 12 and 13 is the <u>most serious</u> local environmental problem.

....

(15) Now write here if you can think of anything that could be done to help this particular problem.

....

....

....

....

WORLD ENVIRONMENTAL PROBLEMS

(16) From the list below tick ✓ how serious you think these problems are as global environmental problems.

	Very Serious Problem	Quite Serious Problem	Slightly Serious Problem	A Minor Problem	Not A Problem	Don't Know
Destruction of tropical rainforests	❑	❑	❑	❑	❑	❑
Damage to the ozone layer	❑	❑	❑	❑	❑	❑
Oceans being polluted	❑	❑	❑	❑	❑	❑
Animals becoming extinct	❑	❑	❑	❑	❑	❑
Too many people	❑	❑	❑	❑	❑	❑
People not having enough to eat	❑	❑	❑	❑	❑	❑
People not having clean water	❑	❑	❑	❑	❑	❑
Damage to the desert	❑	❑	❑	❑	❑	❑
Global warming	❑	❑	❑	❑	❑	❑
Not enough space to build roads	❑	❑	❑	❑	❑	❑
Acid rain	❑	❑	❑	❑	❑	❑
Nuclear power	❑	❑	❑	❑	❑	❑
Mad Cow Disease	❑	❑	❑	❑	❑	❑
Nuclear and toxic waste	❑	❑	❑	❑	❑	❑
Ill-treatment of animals by humans.	❑	❑	❑	❑	❑	❑

(17) Write here if there are any other global environmental problems in the rest
      of the world which are not on the list.

      ....

      ....

(18) Write here if you think that one of the problems in Questions 16 and 17 is the
      most serious global environmental problem.

      ....

(19) Now write here if you can think of anything that could be done to help this
      particular problem.

      ....

      ....

      ....

      ....

(20) Are there any particular people or groups who should be helping to prevent
      and clean-up environmental problems? Tick here who you think should
      help environmental problems?

      Tick ✓ any that you think:

         ❏   No-one
         ❏   All of us
         ❏   Adults
         ❏   Children
         ❏   Local community groups
         ❏   John Major and The Government
         ❏   United Nations
         ❏   Greenpeace and Friends of the Earth
         ❏   Industry and businesses
         ❏   The people who cause environmental
                problems
         ❏   The police
         ❏   Not sure/ Don't know

         ❏   Or someone else? Write here if there is
                someone else who you think should help

                ....

(21) Please now circle who you think should most help environmental problems.

(22) How do you find out about environmental problems? Write a list of any of the ways you find out about environmental problems. Circle the one that you learn the most about the environment from.

....

....

....

....

(23) Would you like to know more about environmental issues?

Tick ✓ either   ❏   Yes
                   ❏   No
                   ❏   Not sure/ Don't know

HOME AND FAMILY

(24) Is anything done in your home to help the environment? If it is, write here what sorts of things are done. If nothing is done, write nothing.

....

....

....

(25) When you are shopping do you ever buy things because they are 'good' for the environment?

Tick ✓ either: ❏ Yes   ❏ No   ❏ Not sure or Don't know

(26) If you have answered YES write what sorts of things you have bought which are good for the environment.

....

....

(27) Do any of your children ever persuade you to buy certain products because they are good for the environment?

Tick ✓ either: ❏ Yes   ❏ No   ❏ Not sure or Don't know

(28) What sorts of things have you been persuaded to buy?

....

....

(29) Have any of your children asked you to change what you do in the home
      or the garden to help the environment?

      Tick ✓ either: ❑ Yes   ❑ No   ❑ Not sure or Don't know

(30) If YES, write here what sorts of things have they persuaded you to do in the
      home or the garden?

....

....

(31) Do you ever talk to your children about the environment and environmental
      issues?
                      Tick ✓ either: ❑ Often   ❑ Sometimes
                                         ❑ Never   ❑ Not sure or Don't know

(32) Do you think that parents should teach their children about environmental
      issues?
      Tick ✓ either: ❑ Yes   ❑ No   ❑ Not sure or Don't know

(33) Do you think your child should learn about environmental issues through
      television and other sorts of media?

      Tick ✓ either: ❑ Yes   ❑ No   ❑ Not sure or Don't know
                         ❑ Don't have a television

(34) Do you think your child should learn about environmental issues at school?

      Tick ✓ either: ❑ Yes   ❑ No   ❑ Not sure or Don't know

(35) Some people think that environmental issues are too controversial to be
      taught in primary schools, do you agree?

      Tick ✓ either: ❑ Yes   ❑ No   ❑ Not sure or Don't know

(36) Are any of your friends concerned about the environment?

Tick ✓ either: ❑ Yes, lots   ❑ Yes, some
                ❑ No, none of them   ❑ Not Sure or Don't know

(37) Do you ever talk with your friends about the environment and environmental issues?

Tick ✓ either: ❑ Often   ❑ Sometimes
                ❑ Never   ❑ Not sure or Don't know

(38) Are you or your spouse/partner a member of any of the following groups

Tick ✓ all that apply:

❑ CND (Campaign for Nuclear Disarmament)
❑ Friends of the Earth.
❑ Greenpeace
❑ National Trust or Natural Trust for Scotland
❑ Ramblers' Association
❑ RSPB (Royal Society for Protection of Birds)
❑ Scottish Wildlife Trust
❑ SSPCA (Scottish Society for Protection of Cruelty to Animals or RSPCA)
❑ WWF (World Wildlife Fund for Nature)

❑ Write here if there are any other environment/nature groups which you or your spouse/partner are a member of.

....

....

(39) Tick ✓ if you have done any if the following in the last 12 months:

❑   Thought about supporting a political party in a national election because of their environmental policy.

❑   Supported or thought about supporting a political party in a local election because of their environmental policy.

❑   Signed a petition to help the environment.

❑   Watched a television programme or read about environmental issues.

❑   Worked with local community groups to help the environment.

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❑   Been on a march or demonstration about environmental issues.

❑   Joined, or continued to be a member of, a political party because of their environmental policy.

❑   Given money to an environmental group such as Greenpeace or Friends of the Earth.

❑   Written to your MP about environmental issues.

❑   Written to your local council about environmental concerns

❑   Actively campaigned to help the environment.

❑   Avoided buying products from a country or a company because of their policy towards particular environmental issues.

❑   Written a letter to a newspaper or magazine about environmental issues.

❑   Chosen to use public transport or walk or cycle instead of the car to help the environment.

❑   Recycled household waste. (for example, glass, paper)

❑   Subscribed to a magazine concerned with the environment or conservation or natural resources or the Third World.

❑   Visited places where you have learnt about the environment and nature.

❑   Been for a walk in the countryside or along the coast.

(40) Thinking now about the job that you do, has your work changed in any way to help environmental problems?

Tick ✓ either: ❑ Yes   ❑ No
                              ❑ Don't work   ❑ Not sure or Don't know

(41) If Yes, write here what sorts of things have changed?

....
....
....
....

(42) In the future do you think that environmental problems will get better or worse or stay the same?

Tick ✓ either:
- ❏ Much better
- ❏ Slightly better
- ❏ Stay the same
- ❏ Worse
- ❏ Much worse
- ❏ Not sure/ Don't know

43) Is there anything else you would like to say about environmental problems in general or about your involvement with environmental issues? If so, please write it here.

....

....

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....

....

....

Now I would like to ask you just a few more personal facts. Please remember that you do not have to answer any of the questions. However, no-one other than me will see the information on this form - any information that you give will be treated with complete confidentiality.

(44) Do you work in paid employment?
Tick ✓ either: ❏ Yes, full-time ❏ Yes, part time
                ❏ No

(45) If YES write here what your job title ....

(46) Please give a brief description of the duties involved in the work that you do:

....

....

....

....

....

(47) Does your spouse/partner work?

    Tick ✓ either: ❑ Yes, full-time ❑ Yes. part time

            ❑ No   ❑ No spouse/partner

(48) If <u>YES</u> write here what their job title is ....

(49) Please give a brief description of the duties involved in the work that they do:

....

....

....

....

....

(50) Tick ✓ here if you or your spouse/partner are self-employed.

     ❑ You

     ❑ Spouse/Partner

(51) How old were you and your spouse/partner when you left full-time
   education?

	You	Spouse/Partner
15 years old or less	❑	❑
16 years old	❑	❑
17 years old	❑	❑
18 years old	❑	❑
19 years old or more	❑	❑
Don't know/not sure	❑	❑

(52) What qualifications, if any, have you and your spouse/partner obtained at school or since leaving school? Tick ✓ any which apply:

	You	Spouse/Partner
No qualifications	❏	❏
SCOTVEC modules	❏	❏
City & Guilds, Pitmans, SEN, TOPS, RSA	❏	❏
HND, SRN, teaching diploma	❏	❏
SCE O Grade, GCE O Level or GCSE or Standard Grade	❏	❏
SCE Higher or GCE A Level	❏	❏
Degree or above (e.g. BSc, B.Ed, M.A)	❏	❏
Don't Know/Not sure	❏	❏
Other qualification	❏	❏

Please say what   ....

Please return the set of questions to me in the enclosed stamped addressed envelope by 21st June 1996.

Thank you very much for your help.

Sue Grundy

Appendix 5: Kohlberg's Six Stages of Moral Judgement

LEVEL 1: PRECONVENTIONAL

STAGE	CONTENT OF STAGE		SOCIAL PERSPECTIVE OF STAGE
	WHAT IS RIGHT	REASONS FOR DOING RIGHT	
STAGE 1 Heteronomous Morality	To avoid breaking rules backed by punishment, obedience for its own sake, and avoiding physical damage to persons and property.	Avoidance of punishment, and the superior power of authorities	*Egocentric point of view.* Doesn't consider the interests of others or recognize that they differ form the actors; doesn't relate two points of view. Actions are considered physically rather than in terms of psychological interests of others. Confusion of authority's perspective with one's own.
STAGE 2 Individualism, instrumental purpose, and exchange	Following rules only when it is to someone's immediate interest; acting to meet one's own interest and needs and letting others do the same. Right is also what's fair—what's an equal exchange, a deal, an agreement.	To serve one's own needs or interests in a world where you have to recognize that other people have their interests too.	*Concrete individualistic perspective.* Aware that everybody has his or her own interests to pursue and these conflict, so that right is relative (in the concrete individualistic sense).

LEVEL 2: CONVENTIONAL

STAGE	CONTENT OF STAGE		SOCIAL PERSPECTIVE OF STAGE
	WHAT IS RIGHT	REASONS FOR DOING RIGHT	
STAGE 3 Mutual interpersonal expectations, relationships and interpersonal conformity.	Living up to what is expected by people close to you or what people generally expect of people in your role as son, brothers friends etc. ''Being good'' is important and means having goods motives, showing concern about others. It also means keeping mutual relationships, such as trust, loyalty, respect.	The need to be a good person in your own eyes and those of others. Your caring for others. Belief in the Golden Rule. Desire to maintain rules an authority that support stereotypical good behaviour.	*Perspective of the individual in relationships with other individuals.* Aware of shared feelings, agreements, and expectations which take primacy over individual interests. Relates points of view through concrete Golden Rule, putting yourself in other guy's shoes. Does not yet consider generalized system perspective
STAGE 4 Social System and conscience	Fulfilling the actual futures to which you have agreed. Laws are to be upheld except in extreme cases where they conflict with other fixed social duties. Right is also contributing to society, the group or institution.	To keep the institution going as a whole, to avoid the breaking down in the system ''if everyone did it,'' or the imperative of conscience to meet one's defined obligations (Easily confused with Stage 3 belief in rules and authority).	*Differentiates societal point of view from interpersonal agreement or motives.* Takes the point of view of the system that defines roles and rules. Considers individual relations in terms of place in the system.

LEVEL 3: POSTCONVENTIONAL, OR PRINCIPLED.

STAGE	CONTENT OF STAGE		SOCIAL PERSPECTIVE OF STAGE
	WHAT IS RIGHT	REASONS FOR DOING RIGHT	
STAGE 5 Social Contract, or utility, and individual rights	Being aware that people hold a variety of values and opinions that most values and rules are relative to your group. These relative rules should usually be upheld, however, in the interest of inpartiality and because they are the social contract. Some nonrelative values and rights like life and liberty, however, must be upheld in any society and regardless of majority opinion.	A sense of obligation to law because of one;s social tact to make and abide by laws for the welfare of all and for the protection of all people's rights. A feeling of contractual commitment freely entered upon, to family, friendship, trust, and work obligations. Concern that laws and duties be based on rational calculation of overall utility, "the greatest good for the greatest number."	*Prior-to-society perspective.* Perspective of a rational individual aware of values and rights prior to social attachments and contracts. Integrates perspective by formal mechanisms of agreements, contract, objective impartiality and due process. Considers moral and legal points of view; recognizes that they sometimes conflict and finds it difficult to integrate them.
STAGE 6 Universal ethical principles	Following self-chosen ethical principles. Particular laws or social agreements are usually valid because they rest on such principles. When laws violate these principles, one acts in accordance with the principles of justice: the equality of human rights and respect for the dignity of human beings as individual persons.	The belief as a rational person in the validity of universal moral principles, and a sense of personal commitment to them.	*Perspective of a moral point of view from which social arrangements derive.* Perspective is that of any rational individual recognizing the nature of morality or the fact that persons are ends in themselves and must be treated as such.

Appendix 6: Cartoon Series and Episode Summary

Captain Planet and the Planeteers

Gaia, the spirit of the Earth, has given five magic rings to young people (The Planeteers) from around the world (Kwame from Africa; Ma-Ti from South America, with his pet monkey Suchi; Wheeler from North America; Linka from the former Soviet Union and Gi from Asia) in order to stop the environmental destruction of the Earth. The rings, individually, have different abilities, each to control one power of nature: Heart (the greatest power), fire, wind, water and earth. When the power of the rings is combined together they summon Captain Planet - a environmentally concerned superhero. The children are faced, each episode, by planet threatening/damaging individuals and situations which they avert in order to protect the planet. At the end of each episode, there are two "Planeteer Alerts" in which the Planeteers and Captain Planet, speak directly to the audience, providing "real-life" examples of the dangers to the environment, and the solutions or actions that can be taken to reduce the problem or prevent it all together.

Story Synopsis - Off Road Hoggs

Ma-Ti and a desert guide called Josh have climbed to the top of a rock to look out over the desert.

1   See huge rock in desert. Josh and Ma-Ti climb to the top of a rock, Josh
2   appears first.
3   Josh - Come on Ma-Ti there's one more rock.
4   See Ma-Ti covered in sweat reaching the top of the rock. They look out over
5   desert
6   Josh - Have you ever seen anything so pretty? (See desert all around)
7   Ma-Ti - Josh, you're kidding right? (Suchi scratches head and then opens
8   out his arms to Josh in a gesture of disbelief)
9   Josh - Ah Josh ain't joshing you Ma-Ti, it's no rainforest (See huge green
10 cactus with hole in part of trunk) but its every bit as alive and beautiful.
11 (Suchi heads off towards cactus over rocks with a few flowers in them)
12 Ma-Ti - But its so barren, no animals, no plants.(See Suchi looking into hole
13 in cactus plant and shrieking as eyes appear in the darkness of the hole,
14 Suchi falls over backwards as and owl and its three offspring emerge out of
15 the hole hooting Suchi falls down onto a tortoise the tortoise raises its head
16 and looks at Suchi. Suchi runs off into cave where eyes appear in the darkness
17 suchi runs out and wolves emerge, suchi backs away from the wolves and
18 behind him a rattlesnake rises and suchi runs to Ma-Ti
19 Josh - Don't worry little feller the rattler was just a warning you to back off

20   Josh - No life in the desert heh!
21   Ma-Ti - Guess we were wrong hey Suchi?

They notice a cloud of dust approaching. It is Hoggish Greedly and his sidekick Rigger, racing each other in off-road vehicles. A tortoise is lying in their track. Ma-Ti runs out to try and protect it. Josh runs out to knock Ma-Ti out of the path of the approaching vehicles. The vehicles pass. The tortoise has climbed into a hole and is safe.

22   Josh - This old deserts full of life, my guide business depends on keeping it
23   that way (they walk to edge of rock) Ma-Ti - What is that sound? (Hear
24   rumbling and creepy music) Josh - I don't know for sure but I have a
25   sneaking feeling it ain't good (Ma-Ti looks through his binoculars)
26   we see a cloud of dust in the distance. Ma-Ti - Oh no Hoggish Greedly and
27   Rigger (See into cloud at two off-road vehicles travelling along)
28   Greedly - Hahaha, I'll run you right off the road Rigger
29   Rigger - Sure sure sure boss but we're already off the road
30   Rocks and dust are flying up. the approach a rat it disappears just as rock
31   and dust are thrown up by vehicles Huge wheel tracks are left.
32   Josh - Greedly and his gang of off road hogs are wrecking this place common
33   (they   run to edge of rock)
34   see vehicles approaching a tortoise is walking to its burrow see the vehicle
35   doing a wheely. see tortoise walking to burrow Josh those ** fools are
36   heading right for that tortoise burrow see vehicles approaching   We see the
37   fast approaching vehicles
38   Ma-ti climbs down cliff
39   Ma-Ti Stop (See tortoise climbing into its hole)
40   Ma-Ti Stop
41   Josh - Ma-Ti watch out boy
42   see vehicles approaching
43   Ma-Ti stands in front of hole he waves his arms in the air
44   Ma- Ti - Do not hurt the...
45   Josh runs out and takes Ma-Ti out of the path of the approaching vehicles -
46   just in time
47   The vehicles drive over the tortoise hole and don't stop
48   Rigger - Hey, that looked like one of those Eco-brats, nah couldn't be, nah
49   The tortoise hole is covered in earth (Ma-Ti and Josh walk towards hole)
50   Ma-Ti - Josh can we save it?
51   Josh digs it out
52   Josh - Yep we got this one just in time
53   Ma-Ti - Is the desert tortoise and endangered animal?
54   Josh - Yes, course with them off-roaders tearing up the desert every animal
55   is in danger. Look!
56   See snake approaching rat from behind.
57   Josh - Normally that kangaroo rat can hear that sidewinder, but now, (Snake
58   recoils for attack after all that noise...snake attacks
59   We see snake eat rat (Suchi covers his eyes)
60   Josh- I just don't know what to do.
61   Ma- Ti - I do. (Points ring into air) Heart

Ma-Ti alerts Gaia and the other Planeteers about Greedly and asks them for their help.

62	Ma-Ti points his magic ring into the sky and contacts Gaia and the others on
63	the viewscreen.
64	Ma-Ti - We must stop Greedly. His off-road hogs are turning the desert into
65	a wasteland.
66	Wheeler - I thought that's what a desert was
67	Gaia - No but that's the way it will be if Greedly gets his way
68	On the viewscreen we see wild flowers growing in the desert
69	Gaia - The desert has a thin layer of soil where plants grow
70	We see off-road vehicles crushing the flowers and leaving huge tyre tracks
71	Gaia - Off road vehicles crush the soil, so when the rains come
72	See rain falling
73	Gaia - Instead of absorbing the water it washes away
74	See puddles forming
75	Kwame - But without soil plants cannot grow
76	Gaia - And then
77	See lizard sheltering from sun under a bush
78	Gaia - Things get really hot for the animals who need the plants to hide from
79	the sun as well as predators
80	See dirt bike travelling through the desert in a cloud of dust
81	Linka - Are even little dirt bikes bad?
82	Gaia - You mean like that one
83	See bike travelling along
84	Gaia - Every mile it displaces 1500 pounds of top soil
85	Gi - Almost a tonne!
86	Wheeler - Heavy!
87	See desert
88	Gaia - The desert top soil can tale a 1000 years to build up
89	See Greedly and Rigger driving along
90	Gaia - And Greedly's recreational bulldozers can destroy it in one second
91	Gi - They won't when we get through with them

Greedly has organised an off-road race which he intends to rig so that he can keep the prize money for himself.

92	See building signed Greedly's Off Road Hogs. See vehicles circling, smog and dust clouds surrounding them.
93	Rigger - Another entry fee
94	Rigger takes money off competitor
95	Rigger - I've got to hand it to you boss
96	Greedly - You bet your bacon you've got to hand it to me
97	Greedly snatches money from Rigger

They enlist the help of a young boy Pete who owns a dirt bike and is impressed with Greedly's vehicle. Greedly, Rigger and Pete go back out to where the Planeteers are in an attempt to stop them from ruining the race. The Planeteers and Captain Planet scare them off and they leave on Pete's bike which they steel leaving Pete

with the Planeteers. They go back to the race start where the competitors are beginning to assemble.

98	Greedly, Rigger and Pete decide to go and scare the Josh and Ma-Ti in case
99	they try to ruin the race.
100	On the way to Ma-Ti Greedly turns to Pete
101	Greedly - Pete, these environmental eggheads just want to ruin our fun,
102	after all there's nothing out here except sand
103	Pete - I catch your drift Mr Greedly. Let's go run them off
104	Greedly and Rigger encircle them, throwing up clouds of dust. Just in time the
105	Planeteers arrive and stop the vehicles with their magic powers. Kwame,
106	who has the power of earth, builds up a pile of earth underneath Greedly's
107	vehicle. Greedly puts his foot down on the accelerator and big clouds of black
108	smoke belch out. The Planeteers cough.
109	Kwame - It's too polluted for my ring
110	See black smog everywhere
111	The Planeteers call up Captain Planet who drills down to an underground
112	water supply, brings it to the surface, makes quicksand, the vehicles sink.
113	The drivers jump down to safety
114	Greedly - Planet, you can't do this. Do you know how much these babies set
115	me back?
116	Captain Planet - No, but I do know how much you set this desert back, about a
117	thousand years.

Meanwhile a desert storm forces the Planeteers, Josh and Pete to shelter, along with many desert animals, in a cave. Pete realises how important the desert is, and the damage inflicted by off-road vehicles.

118	Greedly and Rigger steal Pete's motorbike.
119	Captain Planet goes off to recycle the off-road vehicles
120	Pete walks up to the Planeteers
121	Pete - Where'd the off-road hogs go?
122	Gi - They got recycled
123	Pete - Recycled, oh boy, Greedly was right about you eco-nuts, you're trying
124	to ruin everybody's fun.
126	Josh - You can have plenty of fun in this desert without destroying it.
127	Pete looks about
128	Pete - Oh yeh right, There's nothing here to destroy or have fun with.
129	Josh - You couldn't be more wrong
130	Sand storm begins to brew
131	They all look for cover
132	Pete gets covered in sand. He is found, just in time by Ma-Ti, through the use
133	of his magic powers. They go to a cave. There are lots of animals sheltering
134	there.
135	Pete - man I never saw so much sand blowing in my life.
136	Linka - Well your dirtbike blew up quite a bit. What did Gaia say, for each
137	mile three quarters of a tonne?
138	Wheeler - I've got that much in my shoe
139	Pete - But Greedly said there was nothing in the desert worth worrying about
140	Josh - You still believe that after seeing all these critters
141	See all the animals in the cave
142	Gi - And after Greedly sandbagged you? (Pete slowly shakes his head)

143   Pete - No, I owe you all an apology, and my life. When we get back to the off-
144   road hog, I'm going to tell everyone what Greedly's trying to pull. (Drops
145   motorbike helmet) Oh my gosh, the race!

The race gets under way, tearing up vast sections of the desert. The Planeteers find
it difficult to do anything as their plane was covered in sand during the storm and
needs cleaning. Therefore they take bits and pieces out of the plane and with the
help and knowledge of Pete, make handgliders to enable them to head the race off.
Pete and Ma-Ti are forced to crash because of Greedly and he captures them. A
storm starts and because vast sections of the desert have been ripped up the rain
does not soak down but causes a flash flood. Ma-Ti and Pete manage to escape as
Greedly and the other competitors are swept down by the river which has arisen out
of the storm.

The Planeteers combine their powers together to call Captain Planet. The Captain
appears and saves all those in danger, being swept along by the flood. He then
takes all their vehicles off to be recycled.

146   See race start. Lots of smog billowing. Greedly plans to have a head start but
147   his engine stalls and all the vehicles fly past him. Smog. Bird and its three
148   chicks in nest They fly off just before vehicles get to them. A lizard move out
149   of the way. Three hares are being chased by a mass of vehicles. Smog. Broken
150   cacti.
151   Geo cruiser is full of sand. The Planeteers decide to handglide. They reach the
152   race
153   Greedly fires a harpoon at Petes handglider and pulls it to the ground. Pete is
154   picked up by another handglider (Ma-Ti?). It gets en-smogged and falls to the
155   ground
156   Greedly grabs hold of them. It begins to rain
157   MaTi - Josh was right about the cloud burst
158   Greedly (Laughs) So what, a little rain never heart anybody
159   Greedly looks worriedly at the sky as it flashes and rumbles
160   Greedly - Say what's going on?
161   Ma-Ti - Now can you see what destroying the desert soil does? It's all
162   running off
163   See wave of water emerge from between two cliffs, some distance away.
164   Ma-Ti - We must get to high ground
165   Pete and Ma-Ti begin to climb
166   Greedly - Don't tell me this is a flash flood
167   See bigger wave of water much nearer
168   Greedly gets soaked
169   He runs and climbs into his vehicle
170   He gets washed out
171   Vehicles float down stream
172   Greedly - Somebody help!
173   Planeteers combine powers
174   Captain Planet appears
175   Captain Planet - Your powers combined, I am Captain Planet

176   Saves vehicles and drivers
177   Takes vehicles off for recycling

Planeteer Alert 1
178   See Ma-Ti climbing up rock
179   Ma-Ti - The desert is a wonderful place
180   Ma-Ti - But while it looks rugged it is really very fragile
181   Wheeler - Damage from off road vehicles and dirt bikes takes a long time to
182   heal
183   See Gi standing on the ground looking at type prints
184   Gi - These ruts were left by military training half a century ago
185   See fire
186   Kwame - Plants have a hard enough time growing in the desert
187   See Kwame by fire
188   Kwame - Do not make it worse for them
189   Kwame walks over to basket of fire wood
190   Kwame - If you are camping bring your own firewood or stove
191   Linka over some flowers
192   Look at the wild flowers but do not pick them
193   Captain Planet - You can enjoy the desert without destroying it. The power is
194   yours.

Planeteer Alert 2
195   City see lots of vehicles producing smog
196   In Gaia's room looking at city on viewscreen
197   Captain Planet - so many cars So much pollution smog is bad for all living
198   things
199   Kwame - But you can help
200   Linka - There are lots of ways to get around that don't pollute (See Ma-Ti on
201   bike on viewscreen, besides a boy and a girl on skateboards, a girl running.
202   (hear sounds of children's playing and laughing)
203   Captain Planet - And when you get your own geo-cruiser
204   See Wheeler working on the machine his face is covered in oil
205   Wheeler - Keep it tuned up
206   Gi is putting air into the tyres
207   Wheeler - And your tyres properly inflated. Remember drive safe drive
208   clean.

3 Notes on the video

'Can Polar Bears Tread Water? – The Greenhouse Effect'

This thirty-minute video has been produced especially for schools, and is based on the Central Independent Television Production *Can Polar Bears Tread Water?* It has been divided into five chapters which should enable use of a small part of the video in one lesson, with varied follow-up activities. Each 'chapter' has a title and concludes with a question for discussion. . .

(NB The chapter headings do not correspond to headings in the pupils' resource book.)

The images in the introduction are taken from different parts of the film. Can your pupils spot the messages in these quick shots? They can be useful for a 'recap' at a later stage.

Contents

Chapter 1: The Greenhouse Problem
(filmed in UK and USA)

Chapter 2: Causes and Consequences
(filmed in Brazil, USA and Bangladesh)

Chapter 3: Feeding the World
(filmed in USA and Ethiopia)

Chapter 4: Whose Turn Next?
(filmed in China and India)

Chapter 5: All Together Now!
(filmed around the world)

Chapter 1: The Greenhouse Problem

This chapter takes us directly into the idea that the changing climate is an important and interesting topic. Apart from the basic explanatory diagram, the causes of climate change are left until Chapter 2.

1.1 Balloon taking off

The film starts with an expert in a balloon, taking off and observing our polluted atmosphere. He is Dr Mick Kelly from the Climatic Research Unit at the Univeristy of East Anglia, Norwich. This is what he says:

'As we look out over the cloud tops we can't see the greenhouse effect. It's invisible but it's there nevertheless. The temperature of the planet's surface is some thirty degrees warmer than it would be if there weren't greenhouse gases such as carbon dioxide and water vapour in the atmosphere.'

Dr Mick Kelly

(NB '30°' = 30° Centigrade (54° Fahrenheit) – a huge figure!)

The significance of his statement becomes clearer after the diagram is understood.

1.2 Diagram of Greenhouse Effect

This is the key diagram. It is worth pressing 'pause' to study it and establish the concept. It might also be useful to re-run this part of the video. Use the diagram on the poster, too. Activities on pages 6–7 of the resource book will clarify the concept further, by using the analogy of the classroom on a sunny day and by comparing the Earth with other planets.

(NB The use of the 'greenhouse' analogy is very helpful in this context. In common with many other analogies, it is not totally accurate, but it is a very good introduction to the topic.)

1.3 Dr S. Schneider

Dr Schneider is a scientist at the US National Center for Atmospheric Research at Boulder, Colorado. He says:

'What's at odds is whether humans are adding to the gases in the atmosphere fast enough to radically alter the climate on a much, much faster rate than nature does. That's the debate.

N.B. Extract from 'The Greenhouse Effect: Causes and Consequences - Teacher's Handbook. D.R. Wright (1990) London: Hodder & Stoughton.: 13-21.

Because that rate of change, that five degrees or so warming that we are talking about in the next fifty or so years, is about the same degree of warming that it took to bring the ice age to the present climate. And it took nature about ten thousand years to melt the ice caps, to raise the sea-level 120 metres, to completely revamp the ecological face of the planet. And it does that in five to ten thousand years. We're doing a change just as large in the time frame of a century. And that's what has me, ecologists and other people worried about the greenhouse effect from people.'

Dr Stephen Schneider

Pupils could try to summarise the essence of his message in their own words.

He is quoting the more extreme predictions ('5°C or so in the next fifty years or so'). The comparison with the ending of the Ice-age is helpful – the pictures try to create a feeling of icesheets melting. To bring the concept nearer home, the 'submerged lowland coastline' of the Thames Estuary and Essex are one UK example of the effects of the post-glacial rise in sea-level.

1.4   Temperature graph

This graph needs the 'pause' button. Pupils need to notice not just the line rising fast, but also the figures on the left. The rise looks impressive until the scale is studied: a 0.2°C rise is really a very small figure. In fact, it is imperceptible in everyday life. This is very different from the '5°C' rise that Dr Schneider suggests might happen.

Discuss: Is the evidence of warming firm yet?

(a) Is 0.2° so small that it might be within 'a margin of error'?
(b) Could these figures merely show random variations in the climate?
(c) Could the differences be because of more accurate thermometers?

1.5   World maps of rising temperature

Work on 'global warming' in Europe is on pages 24–25 of the resource book and is based on computer predictions. The big question of changes in the British climate is tackled on pages 34–35 of the resource

book. These maps are based on computer predictions. The colours indicate comparisons with recorded temperatures in the 1950s. Deepest red indicates the highest expected rise from these figures. The figure of 8°C to 12°C warming quoted for the poles is one of the highest predictions; most scientists do not envisage such a big rise.

The uncertainty of predictions suggests we should be cautious. Another prediction (*The Times*, 7.12.89) from Princeton University, USA, suggests that there will be a 2°C warming at the North Pole in the next thirty-five years, but no warming at the South Pole for fifty years. Pupils can discuss whether we should believe computer predictions, or question them. The term 'GIGO' may interest them – it's short for 'Garbage In: Garbage Out'! Of course, these predictions are not 'garbage', but they do depend on human decisions on what to include. For example, some predictions may assume that the upward movement in temperature is a trend; others may assume it is an aberration. Some predictions give a major role to the effects of warm ocean currents; others ignore them.

(NB These suggestions do not 'disprove' the research reported in the film, but are designed to encourage a 'critical awareness' in pupils, to help them to question rationally all the predictions they encounter.)

1.6   'Extreme' weather

A series of quick and dramatic views of 'extreme' weather events – each one deserves a 'pause' if time permits. The scenes raise this question: 'Are disasters likely to become more frequent in a warming world?'

Many scientists argue that the Greenhouse Effect will increase the likelihood of 'extreme events' of all types.

Pupils can list the locations and plot them on a map. (See table at the top of page 15.)

See resource book pages 32–33 for suggestions for further work on 'natural(?) disasters'.

1.7   'Key questions' for this chapter:

What's happening?

Why, why, why?

Details of extreme events shown in the video (chapter 1.6)		
Event	*Place*	*Date*
Storm	Gulf of Mexico	
Hurricane Gilbert		Sept. 1988
Hurricane Hugo		Sept. 1989
Floods	Bangladesh	Sept. 1988
Drought	USSR	Aug. 1988
Drought	China	Feb. 1989
Hurricane	Britain	Oct. 1987
Snow	Arizona, USA	Dec. 1987

Chapter 2: Causes and Consequences

This is the most important chapter in the whole video.

2.1 'How to wreck the planet's atmosphere in four easy stages'

1 Waste energy (view of cars on motorway)
2 Burn as much fuel as possible (view of oilfield)
3 Destroy the forests (view of burning forest)
4 Poison the skies (view of smoking chimneys)

For a class which is accustomed to working in groups, these headings provide four good 'research topics' and/or four posters to be made.

It is vital that the implications of these four messages register strongly: the Greenhouse Effect is caused by pollution, and most of the world's pollution is caused by the rich countries. Only when this concept is grasped will the rest of the video seem important.

The poster has three photographs of pollution: these photographs are worth studying at this stage. (See notes for the poster.)

To study the evidence for air pollution, use pages 14–15 of the resource book. These pages provide evidence from remote spots (mid-Pacific; Antarctica).

To study 'black spots' of present and future air pollution worldwide, use pages 16–17 of resource book.

To study 'Who causes the Greenhouse Effect?' use page 18 of the resource book – to discover that we are all personally involved, and use page 19 to discover that the rich countries pollute much more per head than the poor countries.

2.2 Dr Kelly

'We tend to regard the atmosphere as a limitless resource continually renewing itself, cleansing itself of pollution. This is no longer the case. We are injecting pollutants into the atmosphere at an ever increasing rate. Five-and-a-half thousand million tons of carbon go into the atmosphere every year as a result of the burning of fossil fuel, coal, gas and oil.'

Dr Mick Kelly

His comments need to be discussed:

(a) Why have we considered the atmosphere a 'limitless resource?'
(b) Why is this not true today?

2.3 Atmosphere diagram

For all the sources of air pollution see resource book pages 8–9 (This section is not suitable for less able pupils.)

(a) **Carbon Dioxide – the main culprit**
See pages 20–21 of resource book for a study of present and future world energy. Pupils need to understand that carbon is 'stored' in fossil fuels (coal, natural gas, oil) for millions of years, and CO_2 is released into the atmosphere when the fossil fuels are burned.

(b) **Methane**
See page 15 of resource book for a graph showing the increase of methane. Methane gas comes from animals and from rotting vegetation. This is not a new phenomenon: wild animals and natural swamps produce lots of methane. However, there is concern that the increase of human population results in more domestic animals than in the past, and also more rice in paddy fields.

(c) CFCs
See pages 12–13 of the resource book for a study of CFCs. This is not a study of the 'ozone hole', a major world problem, but not the topic being studied in this pack. The key idea is that as greenhouse gases, CFCs are 10000 times more powerful than CO_2.

2.4 Deforestation

This section links with pages 22–23 of the resource book, and a photograph on the wallchart.

(a) Pictures of the forest
The dramatic views of forest destruction need the 'pause' button – a sudden stop can create the feel of sorrow and death, and avoids the 'lulling' effect of TV.

(b) Map of forests
The map on the video can be supplemented by almost any school atlas: a map of world vegetation will show forests clearly. The dramatic visual effect of 'moving' Britain to Amazonia is worth thinking about – but only the brightest pupils will spot that it is not an entirely valid exercise because the scale of the map is smaller at the equator than at 53°N!

(c) 'Two good reasons for saving the rainforests'
Pupils will need further help in grasping these two vital concepts – either from page 22 of the resource book, or orally from the teacher:

Forests absorb CO_2 and release oxygen
but burning a forest releases CO_2
and the trees are no longer there to absorb the CO_2 in future.

Thus there are two good reasons for not burning.

2.5 Sea-level rise

This section links with Section C of the resource book (pages 38–55).

(a) Introduction – Florida picture (a theme returned to later)
Maldive Island picture – see resource book page 55: Coral Islands. The idea of a whole country vanishing may be new to pupils.

(b) Map of world cities
The world map emphasises cities, but it is arguable that delta areas will have the biggest disasters (see pages 54–55 of resource book, and later parts of the video).

Pupils could plot the following cities on a world map and perhaps suggest some other cities.

Rich world

North America:	Los Angeles*
	New York*
	Miami
Europe[†]:	London*
	Amsterdam*
	Venice
Australia:	Sydney

Poor world

South America:	Rio de Janiero
Africa:	Alexandria*
Asia:	Bombay
	Dhaka*
	Singapore

([†]for Europe, see pages 52–53 of resource book)

(* = pictures and/or map in this chapter of video)

A useful follow-up would be to study world maps of cities to see how many are at the coast; and to study a map of world population to see how many of the heavily populated areas are near the sea. Note that sea-level rise does not flood all coastal areas – the low-lying ones will be most affected.

(c) Area maps
There are several 'before and after' maps of lowland areas – ask pupils to watch for the changes and to estimate the approximate area of each map which could vanish:

Nile Delta, Egypt
Netherlands
Florida, USA
Bangladesh

(d) London
Imaginary scenes show the Houses of Parliament flooded and the Thames Barrier at Woolwich under water – an extreme forecast! For the Thames Barrier, see accompanying wallchart and teachers' notes on the wallchart. For flooding of English lowland, see pages 38–51 of the resource book.

(e) Florida
A crisis for rich people contrasts with the much bigger crisis which follows . . .

(f) Bangladesh case study

It is important to register the contrast between the Bangladesh case study and the studies from the 'rich' world. The rich countries may be able to afford to defend their coastlines. Even if they do not, people can move elsewhere in the EEC or USA. Bangladesh cannot afford massive sea defences, and the inhabitants have nowhere to retreat to.

The earlier floods were not so devastating, but this flood was the worst in our memory. We suffered the maximum loss during this flood. I've never seen a flood like this in my life. The water came up suddenly and fast, one hand at a time. The water came up to our chest inside the house and then it rose to our neck and we had to go on the roof of the house. We took away our livestock to higher ground and when the water rose further we left the village and went to the nearby school where our children study. If these kinds of floods continue to come into our country, how will we manage to survive? We can manage somehow but without cattle we cannot farm and produce food. How will we save ourselves? How will we save our children?

Mohammed Mian (farmer)

The questions the Bangladesh farmer raises need repeating and discussing:

How will we manage to survive?
How will we save ourselves?
How will we save our children?

For Bangladesh, see page 54 of the resource book.

2.6   Drought

Ethiopia . . . a quick view of severe drought emphasises that climate change has many different effects.
USA Corn Belt changes . . . the topic of drought is taken up again in Chapter 3 of the video.

2.7   Key questions for this chapter

Who is to blame?
Who will suffer?

In discussing these key questions, it is vital that pupils come to recognise that, per head, rich people cause far more air pollution than poor people. Yet the biggest suffering will come in the world's deltas and coral islands. Almost all the people affected will be poor people. Is this fair?

Chapter 3: Feeding the World

This chapter tackles the question of world food through case studies of farmers affected by drought in the USA and in Ethiopia. Both areas were mentioned briefly in Chapter 2: this chapter goes into more detail.

3.1   USA: Ron Rivinius, farmer in North Dakota

Your pupils need to notice four key ideas:

(a) The evidence of drought – look at the dust that is raised by the farmer's truck.
(b) The expensive modern truck which the farmer drives: he is clearly not 'broken' by the drought as yet – contrast with Ethiopia later.
(c) The very high temperatures he complains of are quite normal in parts of Ethiopia.
(d) The wheat which he says is 'barely ankle–high' and is 'useless' for harvesting would be assessed very differently in Ethiopia – the crop would

be enthusiastically harvested by hand and help to alleviate famine.

See wallchart for a stamp of North Dakota and picture of farmer with same problems in adjacent South Dakota.

3.2   Flashback to 1930s

Vintage film shows the devastation in the 'Dustbowl' of the USA. Not just wind erosion, but ruined houses and farmers leaving the land. For further examples of the 'Dustbowl' era, *The Grapes of Wrath* by John Steinbeck (Penguin Books) provides superb descriptions.

3.3   Chicago Board of Trade

This view of a major stock market is included to show the links between climate and capitalism. Many pupils study farming 'in isolation' – this short sequence should help them to see that climate changes affect everyone and everything. The graph on the

computer shows that news of the drought sent prices soaring. It is not necessary to understand how a stock market works for this sequence: the key idea is the link between climate, crop failure, and price rises.

3.4   Ethiopia

There are two important ideas here:

(a) Drought has a far more devastating effect on poor countries than on rich countries.
(b) If the USA cornbelt suffers from drought, the traditional role of the USA as the world's biggest exporter of grain may change, and its role as a saviour of famine-hit areas may cease.

3.5   USA/Ethiopia compared

The big differences between the USA and Ethiopia are easy to spot. The similarities are worth noticing, too. Pupils could compare these two statements from the video and spot the similarities as well as the differences:

Ron Rivinius, farmer, USA
'I'm very vulnerable to the weather.

All this technology does us no good if the weather doesn't cooperate. Everthing started off fantastic, and all of a sudden the rainfall stops – you can really fall into some depression . . . because of the things you have no control over.'

Aklog Awake, farmer, Ethiopia
'Last year it drizzled, but only a bit – we had no rain at all.
There's nothing I can do.
Maybe we'll get a harvest in the future?'

Pupils could list three similarities and three differences between the US and the Ethiopian farmer.

3.6   Key question

'We can try to stop the things we do which cause the Greenhouse Effect. But are we willing to do it?'

(We have seen the 'bad news' of the Greenhouse Effect on two contrasting farmers. Both have suffered – but the causes are beyond their control. But who are the 'we' in this question? And how could the 'willing to do it' come about? See Chapter 5 soon!)

Chapter 4: Whose Turn Next?

This chapter concerns fuel consumption because everyone agrees that the burning of 'fossil fuels' (coal, gas, oil) is a major cause of the Greenhouse Effect. It links with the study of future world energy use on pages 18–21 of the resource book, but it focuses specifically on the two countries with the highest population: India and China. The film is concerned with changes in the cities, not with the villages where the majority of the population live.

It is most important, before seeing this chapter, that pupils realise that all forecasts agree that 'rich' countries will continue to release far more CO_2 per head than poor countries. So it will be the richer people of the world who are the main cause of global warming.

The chapter 'jumps' from India to China and back several times, because the situation is similar in both countries. It may be helpful to indicate when we change country. Several of the scenes are worth analysing. . .

4.1   India: city

Try spotting the types of energy used for the transport visible in the Indian city scene:

most people walk;
some bicycles;
a bicycle-rickshaw piled high with goods;
one horse cart.

None of the above use fossil fuels.

4.2   USA

What a contrast! The crowded motorway is full of 'gas-guzzling' cars – and they aren't even moving goods. . . The scene changes quickly to a dump of used cars: more energy will be used to build more and more cars to replace those wrecks.

4.3   China

One big lorry; a push-cart; a bicycle – and the cyclist turns to see a single-axle tractor.

This low-power unit can be attached to a cart (as here) or to a cultivator for farmwork. It uses far less fossil fuel than the trucks and tractors of the rich world.

4.4 Population graphs

Use page 20 of the resource book to compare population size and CO_2 pollution of China, India and USA. On the film, the figures are 'rounded off' and make a dramatic contrast. Please note that the columns are not accurate: the India population column should be three times as high as the USA column. Yet energy use is greater in the USA – even though the USA has only one third of India's population and one quarter of China's. To reinforce this idea, we see a quick shot of cars, bus and train in the USA. Note that bus and train are much more economic of energy use than are cars.

4.5 India: New Delhi

The New Delhi shot shows lots of yellow three-wheeled vehicles – some are used as taxis; others for freight. Pupils can spot that the power-unit is similar to a 'Vespa' scooter: less than 100 cc. In rich countries, the power-unit for taxis and vans is almost always over 1000 cc – an enormous contrast. If any of your pupils are motor-bike enthusiasts, they may be able to give more details!

4.6 Indian expert

A quotation for discussion:

'In the developing countries you cannot dampen the expectations of the people, who are entitled to at least a basic minimum level of development. I don't think we can ever reach the levels of affluence that exist in the developed countries, and I don't think we should – but you have to have major inputs of capital, major inputs of technology and consumption of energy to bring about even a basic living standard.'
Dr R. K. Pachauri
(Director, Tata Energy Research Institute)

(Pupils could note that the man has a PhD – and India has Research Institutes.)

4.7 Power station, India

The view of the power station in India shows a very high-tech operations room,

which may surprise the pupils. Two hundred million tonnes of coal a year may sound a lot. This is for nearly 800 million people in India – yet it is the same amount of coal that the UK mine each year for a mere fifty million people in the 1960s.

4.8 China: steel industry

A quick view of a modern computer-filled steel works is helpful for emphasising the rapid pace of change in some parts of China. Pollution statistics still show that the USA adds more CO_2 to the atmosphere than China, even though it has only one quarter of China's population.

If not covered with 4.4, use page 20 of the resource book for a comparison of population size and CO_2 pollution from China, India and USA and seven other countries as well. The dominance of rich countries as the major polluters per head is very clear when the data are studied.

4.9 The future

'Millions more cars: more CO_2.
Millions more fridges: more CFCs.
Millions more mouths to feed: more rice paddies and more cattle: more methane.
Hundreds of new factories and power plants, all adding to the ever-increasing greenhouse cloud.'

NB Topics not tackled in this section on the future: This chapter looks at cities in India and China. In the villages, there is more use of renewable energy – wind, sun, water. New developments of some of these types of energy in the UK are discussed in the next chapter. It would be helpful to discuss possibilities of 'non-polluting' development in India, China, etc. at this point. In particular, the use of solar power (not mentioned in Chapter 5) is very promising. The strong sun in these parts of the world make it more appropriate as a source of power than in the UK, for example. And small-scale appliances for water heating can bring big benefits to individual families.

4.10 Dr Schneider

The reasoning is fast, but it can be grasped. It is worth acting out the arguments, with one group taking the role of UK/USA (= We) and another group India/China.

USA says: 'India and China – you're polluting the world with your new

industries. Please stop.'
India/China replies: 'But you've polluted the world for 200 years. Now it's our turn.'
USA: 'But you have so many people; so you can't develop industry at the same rate as we have.'
India/China: 'Then you'd better help us.'
USA: 'That won't work without a "Law of the Atmosphere" where everybody has to give up something in order to gain global environmental security.'

. . . The above dialogue is based closely on Dr Schneider's words – in other words, it is merely an American view of what might be said. Can your pupils offer better inputs for

India and China? (How about the pollution per head argument? How about global citizenship – should 'using energy' to help starving people have higher priority than air conditioning in US homes? How about doubling the USA's low taxes on oil to encourage less waste of fuel?)

4.11   Key question

We've been wrecking the planet. . .
How can we change?
What is the **lifetime** of our **lifestyle?**
Pupils can discuss whether our lifestyle is 'sustainable' – and if not, how we should change. This leads on to the next chapter.

Chapter 5: All Together Now!

This chapter links with Part D of the resource book – entitled 'Action' (pages 56–64). Page 56 investigates reasons for inaction; page 57 looks at action needed.
    Pupils can summarise the contents of the final chapter of the video in two columns: **The bad news   The good news**

5.1   Red alert

The clapper rings the red alarm bell . . . but the bell turns into a satellite picture of the world. This links well with the wallchart, and the cover picture of the resource book. Can your pupils explain the significance of the images?

5.2   Political action

We see a major conference. Commentary is on the 1987 Montreal Conference which agreed to reduce CFCs. The concept of the role of politicians in reducing pollution is now familiar. Pupils need to be told that it was unfamiliar until very recently.
    Pages 58–59 of the resource book tackle the recommendations from the Montreal Conference – and asks pupils to 'translate' them.

5.3   Disasters

Quick shots of the 'bad news'

    storm and lightning;
    flooding of sea and river;
    hurricane damage;
    famine.

This links with pages 32–33 of the resource book.

5.4   Sir Crispin Tickell (UK Ambassador to the UN)

This is a summary of the key points he makes:

'A lot of very worrying things are coming together':

1 Population growth (two billion to six billion).
2 We are changing the environment:
    – using up resources;
    – causing desertification;
    –polluting our atmosphere;
    – polluting the sea.
3 New! the possibility of climatic change.
4 Refugees: political refugees have more than doubled in ten years – this figure could double again with environmental refugees.

These points could be summarised visually.

5.5   What can governments do? (The good news)

Develop non-polluting power:
    wind power
    wave power
    water power.
Clean up power stations.
Stop clearing forests.
Plant more trees.

Pupils could summarise or sketch these ideas – and add at least four others (e.g. tidal power; solar power; subsidised public transport; tax on polluters).

5.6 What can you do? (More good news)

See pages 60–61 of the resource book for an 'energy-saving' game.

Save energy – switch off lights;
      – save hot water;
      – insulate homes;
      – turn down heating control;
      – use car less: use bus, train, bike, foot more;
      – waste less – recycle more.

Pupils could add four more ideas and express all ten in diagrams.

5.7 What can your class and your school do? (Yet more good news!)

This section is not on the video – but it can be added.

For example – do we recycle paper?
      – do we collect aluminium cans?
      – do we switch lights off?
      – do we keep doors shut?
      – etc. etc. etc.

Again, the ideas can be expressed visually.

5.8 The concluding statement

(Could it be made into a banner that runs right round the classroom or school hall?)

'Our earth needs our help because it gives us life.
But our lifestyles may be changing it
so we need to change those too.
If we do, then the world could be a better place
– for everyone . . .
       EVERYONE . . .
            EVERYONE'

I should like to thank Lawrence Moore for all his help in making the video appropriate for schools.

Using the video creatively in the classroom

A key to a successful lesson with a video film is to use it in different, unusual, thought-provoking ways. Here are ten suggestions:

1 Ask pupils to choose **one** moment in the video that seemed especially significant to them, and say why.

2 Use the 'pause' button and ask 'What do you think happens next?' (This shakes pupils out of viewing passively.)

3 Be willing to 'fast forward' sections which are unlikely to be successful with your pupils. (For example, younger or less able pupils tend to 'switch off' mentally when an expert 'drones on'.)

4 If the 'expert' section is used, pause and ask pupils to write down a question they would like to ask the expert.

5 Important sequences are worth seeing twice.

6 For a repeat of action sequences the 'fast forward' button can be used very effectively to speed up the action – pupils enjoy it; it saves time; and it makes the action even more dramatic.

7 For a second viewing of important short sections, turn off the volume, and invite a pupil to act as commentator. Then ask the class if he/she got it right.

8 Where a specific but faraway example is shown, ask pupils if there is any local equivalent. (For example, the danger of coastal flooding at 'x' could have a parallel near the pupils' nearest 'day-trip' seaside resort; or the destruction of a faraway forest could have a parallel with a local argument about clearing a woodland for a new housing estate.)

9 Ask if the programme was 'balanced' or 'biased' – this question can provoke a lively and very useful argument if pupils have already done some research.

10 Offer a repeat showing of a video in a wet lunch-hour. You'll soon find some enthusiasts for your subject!

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