

Environment and children's everyday lives in India and England: Experiences, understandings and practices

*Thesis submitted for the degree of Doctor of Philosophy
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Declaration

I carried out the study presented in this thesis as a doctoral researcher on the ESRC National Centre for Research Methods node NOVELLA (*Narratives of Varied Everyday Lives and Linked Approaches*), and in collaboration with researchers on two research studies, *Family Lives and the Environment* and *Young Lives*. The thesis presents data that have been generated through collaborative work between myself and members of these research studies. I conducted all of the new research in children's schools and almost all of the new interviews with children in their homes. Except where explicit attribution is made, the analyses presented in this thesis are my own.

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Abstract

In the context of heightened global concerns about resource sustainability and 'climate change', children are often discursively positioned as the 'next generation' by environmentalists and policy makers concerned with addressing 'climate change' and environmental degradation. This positioning serves to present a moral case for action and to assign children a unique place in the creation of more sustainable societies. In this study I critically engage with the assumptions about children's agency underlying such positioning by considering these assumptions in relation to children's situated narratives of environment and everyday life.

The children's narratives were generated through multiple qualitative research activities carried out with twenty-six 11-15-year-old children living in a variety of contexts in India and England, as part of two wider research projects to which this study is linked, *Family Lives and the Environment* (part of NOVELLA – *Narratives of Varied Everyday Lives and Linked Approaches*) and *Young Lives*. The study treats country-level differences as one of a number of intersecting structural varieties alongside children's socio-economic positioning and gender; an equal number of boys and girls living in rural and urban settings and from affluent and poorer families are included in both countries.

Employing a narrative, case-based approach, the research examines the ways in which children exercised agency by presenting themselves as responsible individuals with considerable knowledge about environmental concerns, whilst often stressing their awareness of the limitations of what their own actions taken in response to these concerns could achieve. In contrast to policy framings which often accord responsibility to children to enact and influence 'pro-environmental' changes in the spaces of their everyday lives, children's narratives point to the need for sustained multi-generational and institutionally-led action to tackle environmental degradation as it is now and as it may affect children and families in varied contexts in the future.

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Preface: Learning from children's narratives

As I finalise this thesis, delegates of 195 countries are meeting at a United Nations-convened summit in Paris to finalise a legally-binding global agreement to tackle 'climate change' through reducing 'greenhouse gas' emissions by 2020. Amidst ongoing debates and disagreements, many of which are reported in ways that pit the interests of 'rich' and 'poor countries' against one another, the Paris summit has been constructed in the media as a 'make-or-break conference' and a 'last chance for coordinated global action' on climate change (Harvey, 2015a, 2015b). At the opening of the summit, President Obama described climate change as a challenge that could 'define the contours of this century more dramatically than any other' (Harvey, 2015b). Meanwhile, despite significant rhetoric about the need to 'protect the planet for future generations', one commentary written on the eve of the summit notes that children and young people are 'conspicuously absent' from activities at the summit and the draft agreement being discussed (Pegram, 2015).

I was aged eight at the time of United Nations 'Earth Summit' held in Rio de Janeiro in 1992, which, like the Paris summit, is often hailed as a turning point in how humans have come to understand our vulnerability to environmental events and the need to act to reduce this vulnerability for our own and future generations. At this and every other such summit, politicians spoke of the need to act on behalf of the 'next generation', which in 1992 included children like me. As my generation has grown up into early adulthood, new generations have come to fill our place to be evoked at such summits as a symbolic motif used to buttress the case for urgent action on environmental concerns. In recent years, evocations of the global poor have come to serve in much the same way.

Over my lifetime, myriad phrases and concepts such as 'global warming' (or, in recent years, 'climate change') 'recycling', 'carbon footprint' and 'food miles' have entered the public imagination and changed individual and public perceptions about the acceptability of particular actions and practices as these are weighed up in terms of their environmental '(un)friendliness'. Growing up in rural England and in a family with a keen interest in 'environmental issues', the

contextually-situated nature of these concepts and the structural conditions that make acting in 'pro-environmental' ways more feasible in some contexts than others were not always apparent to me. Subsequent experiences of living in a variety of places (amongst them London; rural Chile; São Paulo; Guatemala City; Hyderabad and rural Andhra Pradesh, the latter two for this study) have broadened my understandings of the ways that environmental issues are situated, experienced and understood differently across contexts, with implications for whether and how individuals are able to act on environmental concerns.

Amongst the many opportunities engendered by this study has been the chance to learn from the varying ways that individuals – and children in particular – make sense of changing environments and environmental knowledge in situated contexts. The narratives generated with children living in different contexts for this study show that, as necessary as global summits and (attempts to reach) agreements on climate change and other environmental issues may be, the apparently 'global' understandings of environment that they present are, in fact, frequently not globally understood or received. This thesis is an attempt to shed light on why this is the case. It does so by thinking through, and with, narratives shared by members of the current 'next generation' living in a variety of contexts in India and England.

Chapter One: Background to this study

1.1: Climate change: The ‘great leveller’?

Waves of multiple global environmental crises break with particular ferocity on the shores of the popular imagination [...] specific crises cohere into a singular acknowledgement that there is a universal environmental crisis, with the potential to become catastrophic: climate change.

(Peet, Robbins and Watts, 2011, p. 13)

In recent years, popular and political understandings of environment have become increasingly concerned with ‘climate change’, the argument that human-led industrial activities are causing warming of the climate on a planetary scale, resulting in a series of interrelated environmental crises. The effects of these crises – amongst them pollution, vector and water-borne diseases, depletion of essential resources, deforestation, species loss, extremities in temperatures, rising sea levels and ‘natural’ disasters – are recognised to pose multiple risks for life on the planet, particularly for the world’s most vulnerable people, amongst them children (Haines et al., 2006). Mitigating these effects is of paramount importance as they are understood to ‘threaten the basic elements of life for people around the world’ (Stern, 2006, p. 65).

A vast body of literature presents evidence on how these effects are already compromising environmental security and access to essential resources for many of the planet’s inhabitants (for recent examples, see IPCC, 2014; UNICEF UK, 2013; World Bank, 2012). The Intergovernmental Panel on Climate Change (IPCC), set up in 1988 to monitor and assess the ‘state of knowledge of the science of climate change’ (IPCC, no date) argues that the organisation of life on the planet must be dramatically adapted in order to respond to effects likely to occur through further temperature increases anticipated as a result of gases already in the atmosphere (IPCC, 2007, 2014). Accordingly, climate change occupies an increasingly superlative position in global governance and has

been written about as ‘the great leveller that encompasses and exacerbates nearly every other problem threatening human progress in the twenty first century’ (United Nations, 2014, p. 30).

These kinds of superlative framings cohere around notions of interdependence between countries, communities and species, which are often presented as an artefact of life in a globalised world. The logic of globalisation is used to present arguments for globally concerted efforts to tackle the varied effects of climate change, with ‘sustainable development’ positioned as the locus of these efforts. The preamble to the Sustainable Development Goals (SDGs), proposed to succeed the Millennium Development Goals (MDGs) at the end of 2015 states that:

Poverty eradication, changing unsustainable and promoting sustainable patterns of consumption and production and protecting and managing the natural resource base of economic and social development are the overarching objectives of and essential requirements for sustainable development.

(United Nations Department of Economic and Social Affairs (UNDESA), no date)

The proposed SDGs acknowledge the principle of ‘common but differentiated responsibilities’ between countries and regions with vastly different socio-economic priorities, calling for ‘the widest possible cooperation by all countries and their participation in an effective and appropriate international response’ (ibid). However, countries’ uneven socio-economic development trajectories inevitably complicate such cooperation, and it is perhaps unsurprising that global agreements to tackle climate change are sometimes disputed by political actors in the majority world¹ as a form of ‘carbon colonialism’ where countries understood to be responsible for creating climate change are seen to impose a political agenda of reduced consumption on those with historically low levels of consumption (see Agarwal & Narain, 1991; Billett, 2010). Whilst the presence of

¹ In this thesis, I use the terms minority/majority world to refer to aggregate rich and poor nations when viewed in comparative global context. The terms minority/majority world are often used in children’s geographies literature and acknowledge that the majority of the global population are politically and economically disadvantaged in relation to a minority of countries and elites within countries (Panelli, Punch, & Robson, 2007; Punch & Tisdall, 2012).

majority world actors at global summits has proven crucial in embedding a notion of redistributive ecological justice into transnational environmental agreements (Shiva, 2006), political ecologists have highlighted ongoing disparities in negotiating power amongst states, linked to their differential access to the 'putatively universal' scientific knowledge on which such negotiations are based (Martello & Jasanoff, 2004, p. 13; see also Parks & Roberts, 2010).

The authoritative use of 'scientific knowledge' as the basis for environmental governance can be considered as an example of what Foucault has termed 'power-knowledge relations' wherein 'power and knowledge directly imply one another' and particular forms of knowledge 'presuppose and constitute [...] power relations' (1977, p. 27). Indian eco-feminist Shiva has critiqued the use of the term 'global' in environmental governance, drawing attention to the disproportionate power of rich nations in constructing and sustaining the knowledge emerging from such agreements. As Shiva argues, 'the global does not represent the universal human interest, it represents a particular local and parochial interest which has been globalised through the scale of its reach' (1993, p. 151). Global framings of environment have furthermore been recognised to 'detach knowledge from meaning' as 'the impersonal, apolitical and universal imaginary of climate change' becomes ever further removed from 'the subjective, situated and normative imaginations of human actors engaging with nature' (Jasanoff, 2010, p. 233). Thus, whilst in many ways necessary, global environmental governance risks generating an assumed universality to 'environment' that overlooks variety in the embodied and situated ways in which individuals experience their environments across contexts (Macnaghten & Urry, 1998).

There are important ethical dimensions to this variety. Principal amongst the arguments of those who have identified an agenda of 'carbon colonialism' in global environmental governance is that the (necessary) goal of reducing aggregate consumption of finite resources overlooks the already limited resources available to numerous households around the world (see Agarwal & Narain, 1991; Shiva, 1993; Srivastava, 2009, 2010). Looking within and across national contexts, researchers have highlighted structural patterns linking the

socio-economic positioning of households, their resource consumption and their exposure to environmental hazards (see Ananthapadmanabhan, Srinivas, & Vinuta, 2007; Drèze & Sen, 2013; Preston et al., 2013; Stephens, 1996). Thus, if the impacts of events causally linked to climate change are understood to make it a 'great leveller', it is critical to consider that these events occur on a plane that is far from flat. As Manteaw observes, 'current discourses on global sustainability [that] have relied on the language and assumption of 'one human family' faced with common challenges that require common solutions [...] ignore the imbalance of wealth, choices and inputs into the causes of our unsustainable present' (2009, p. 172).

Recognition of multi-level structural inequalities within and between countries in today's world informs the decision to work with a varied sample of children in this study. Along with the *Family Lives and the Environment* (FLE) study to which it is linked (see Appendix One), this study sets out to explore commonalities and differences in the environmental concerns of children and families living in situations of relative affluence or poverty across rural and urban settings in the 'majority' and 'minority' world contexts of India and England. It is important to note that the study is not intended as a country-level comparison of children's everyday lives or the quality of children's environments in India and England. Rather, country-level differences are one of a number of intersecting contextual lenses used to explore children's everyday lives and environments in this cross-national study (see Boddy, 2013 for a discussion of this in relation to FLE).

1.2: Environmental governance and everyday life

Since the first World Conference on the Human Environment in 1972, United Nations bodies have overseen processes of 'global constitution making' on the environment (Jasanoff, 2004, p. 32). Responsibilities to enact the principles of agreements reached at international summits are delegated to national and sub-national governments in what can be understood in Foucauldian terms as a 'continuity of governance' between political actors (1991 [1978], pp. 91-92). In this 'continuity of governance' the state is central, giving upwards account to

supra-national bodies on their progress in meeting agreements and governing downwards by creating national laws that make requirements of sub-national governments, individuals and institutions (Jasanoff & Martello, 2004; Taylor, 2013). The importance of securing individuals' participation in 'pro-environmental' activities is elaborated in *Agenda 21*, a multi-level programme of action for sustainable development which continues to form the basis for global environmental governance (United Nations, 1992; for statements of 'renewed political commitment' to *Agenda 21*, see United Nations, 2012; UNDESA, no date). *Agenda 21* calls for the 'broadest public participation' in activities carried out as part of a 'sustainable transitions' agenda, and presents 'public awareness, education and training' on sustainability as 'indispensable to changing people's attitudes so that they have the capacity to assess and address [...] sustainable development concerns' (United Nations, 1992, p. 320). More recently, the newly approved Sustainable Development Goals (SDGs) include a goal to 'ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature' (UNDESA, no date).

In the regulatory framework outlined above, individuals become strategically important to governments as they pursue a 'sustainable development' agenda, animating Foucault's argument that in modern states characterised by relationships of mediated power between governments and subjects, 'the individual becomes pertinent for the state in so far as he [sic] can do something for the strength of the state' (1994, p. 409). A number of scholars have drawn on Foucault's work on governmentality to present theories of 'green governmentality' (Soneryd & Ugglå, 2015) or 'environmentality' (Agrawal, 2005). These theories attend to how environmental policies at local and national levels are increasingly centred on educating and supporting individuals to take on the role of the 'environmental subject [...] for whom the environment constitutes a critical domain of thought and action' (Agrawal, 2005, p. 16). The work of creating 'responsible environmental subjects' is carried out by a range of actors, as argued by Hobson, who notes a 'growing interest amongst scholars, policy practitioners and NGOs in the roles that individuals can, do and should play in the distribution and maintenance of 'environmental goods', along with the amelioration of 'environmental bads'' (2013, p. 58). The emergence of

contextually-situated 'environmental subjectivities' and related practices in response to environmental concerns in recent years suggests that the overall idea that improving public knowledge about environmental problems may lead to changed behaviours is not entirely unfounded (as discussed by Agrawal, 2005; Hobson, 2013; Miller, 2012). However, the often unquestioned theoretical assumptions underpinning this idea have been critiqued by scholars in work of great relevance to this study.

In particular, social theorists have drawn attention to the rationalist assumptions of individual agency that are embedded in many environmental policies in ways 'so pervasive as to seem natural', often through an 'ABC' model of social change, where A stands for Attitude, B for behaviour and C for Choice (Shove, Pantzar, & Watson, 2012, p. 2). According to this logic, educating the public about environmental problems will cause them to change their behaviours in response to what they know (Satchwell, 2013). Scholars have critiqued these assumptions for their limited attention to the complexity of the social world, and in particular to the social structures in which individuals operate (Hobson, 2013; Maniates, 2001; Middlemiss, 2014; Shove, 2010b). Middlemiss elucidates the incoherence between the theoretical notion of collective action on which the overarching sustainable development agenda (as presented in global governance documents such as *Agenda 21*) is constructed, and the largely individualised policies emerging from this agenda. The outcome of this is that people receive 'mixed messages' about appropriate reactions to environmental problems that may on the one hand call them to make changes to their 'individual' actions, yet on the other suggest that only collective action will resolve such problems (2014, p. 943).

A number of scholars have drawn on and developed practice theory to argue that simply raising awareness of environmental concerns amongst the public is unlikely to lead to widespread changes in everyday practices, and can place unfair pressure on individuals. These scholars, mostly writing in high-consuming societies where policy-makers call for 'low-carbon transitions' in everyday practices, point out the difficulty of changing practices that are embedded in everyday life through the 'nexuses of practices and material arrangements' that support human existence in situated contexts (Schatzki, 2010, p. 129; see also

Shove, 2010a, 2014; Shove, Pantzar, & Watson, 2012; Spaargaren, 2011; Warde, 2005). The policy focus on individuals is argued to 'obscure the extent to which governments sustain unsustainable economic institutions and ways of life, and the extent to which they have a hand in structuring options and possibilities' (Shove, 2010a, p. 1274). Shove and colleagues explore the social and material elements that constitute everyday practices to argue for an alternative 'practice-based' approach to environmental governance that attends to the interactions between these elements (Shove et al., 2012). Other scholars have likewise identified a disjunction between the calls for reduced consumption and the principles of democratic consumer capitalism in high-consuming societies (Akenji, 2014; Blühdorn, 2013; Miller, 2012; Newell, 2012; Threadgold, 2011).

The disjunction between individuals' environmental knowledge and everyday practices has been theorised as a 'knowledge-behaviour gap' by environmental psychologists in work that shows limitations to the 'ABC' model of social change (Kollmuss & Agyeman, 2002; Lorenzoni, Nicholson-Cole, & Whitmarsh, 2007; Stoll-Kleemann, O'Riordan, & Jaeger, 2001; Uzzell, 2000). Amongst other factors accounting for this 'gap', studies draw attention to a sense of powerlessness expressed by participants where 'global' environmental concerns are seen as too big for individuals to have a significant impact upon. Synthesising the results of a number of studies carried out in the UK, Lorenzoni and colleagues observe that 'the majority of individuals consulted [...] accepted that individuals play a role in causing climate change and that they should be involved in action to mitigate it [but] felt that individual action would have little effect in comparison to other, larger scale emitters' (2007, p. 452). Drawing on analysis of focus-group discussions carried out in Switzerland, Stoll-Kleemann and colleagues (2001) argue that individuals construct responses of denial and displacement of individual responsibility for mitigating climate change as a way to resolve dissonance between their own expressed environmental attitudes and behaviours. These studies suggest that political messages incentivising individual action on climate change knowledge may be undermined by individuals' awareness of the scale of environmental problems and the 'weakness of a political strategy that relies on individuals taking responsibility for solving environmental problems' (Middlemiss, 2014, p. 938).

Outside of the minority world context in which much global environmental governance is drawn up, there are strong arguments that in many contexts 'sustainable development' should mean increased rather than reduced levels of consumption for households experiencing poverty and resource constraint (Guha, 2006; Manteaw, 2009; Srivastava, 2010; United Nations, 2012). Whilst high-consuming households may, amidst the difficulties noted above, voluntarily reduce their consumption in light of environmental concerns relating to sustainability, there is little that households living with limited resources can do to adapt everyday practices where this compromises their everyday survival. Thus increasing awareness of the need for 'sustainable development' may do little to bring about changes in everyday household practices without accompanying structural investments that will necessarily differ according to context. Overall, this and other caveats presented above suggest a need for a more 'socially sensitive' sustainable development agenda (Middlemiss, 2014).

1.3: Children in climate change policy

Both 'climate change' as a globalising narrative and 'sustainable development' as a policy agenda are premised around the necessity to act on future-oriented speculative scientific knowledge in the present in order to mitigate as yet unknown environmental degradation in the future (Anderson, 2010; Evans & Honeyford, 2012; Urry, 2011). The recourse to futurity is often expressed through references to 'future generations', as seen in the preamble to the Sustainable Development Goals (SDGs) which states that sustainable development will 'benefit all, in particular the children, youth and future generations of the world' (UNDESA, no date). Abstract evocations of future generations materialise in many areas of climate change policy into a focus on children as an embodied social group who are recognised to be particularly vulnerable to the effects of climate change, and who are accorded particular responsibilities to enact 'pro-environmental' changes in their everyday lives.

There is indeed significant evidence showing the disproportionate impact of climate change on children globally. Children (those under eighteen) are

overrepresented in the global population suffering from diseases that have been linked to 'climate change' (Haines et al., 2006; World Health Organisation (WHO), 2012, quoted by UNICEF UK, 2013, p. 5), as well as being historically overrepresented, along with women, in fatality rates of 'natural' disasters, which are predicted to become more frequent as the effects of climate change intensify (IPCC, 2014; Plan International, 2011). The varying geo-spatial positioning of children in a world of uneven climatic conditions and exposures to the negative affordances of the natural world means variety in how children are affected by events causally linked to climate change. This differential is captured in Haines and colleagues' observation that 'the total burden of disease due to climate change appears to be borne mainly by children in developing countries' (2006, p. 592). Children's biological vulnerability may also intersect with forms of structural vulnerability, including generation, gender and socio-economic status, to further disadvantage children in the face of environmental events, as seen, for example, in the *Young Lives* study of childhood poverty in four countries (Dornan, 2010).

Recognition of children's vulnerability coupled with their positioning as those expected to live for longest with environmental concerns that are already in process, means that children are often evoked symbolically to buttress the moral case for action on climate change, as seen in policy reports (Plan International, 2011; UNICEF, 2008; UNICEF UK, 2013). A report by UNICEF UK (2013) presents climate change as 'children's challenge' and makes the ethical argument that, as those imagined to outlive current generations of adults, children have the most to gain from activities and policies seeking to sustain the environments of which they are a part, and should be actively involved in these activities (see also Evans & Honeyford, 2012; Hayward, 2012; Horton et al., 2013; Renton & Butcher, 2010; UNICEF, 2008). This sits within the broader political move in recent years to recognise children as active societal participants with the right to 'express [their] views on all matters affecting [them]', as enshrined in the United Nations Convention on the Rights of the Child (CRC; Office of the United Nations High Commissioner for Human Rights (OHCHR), 1989).

As those positioned at any one time in national education systems, children have become central to environmental governance in recent years through the role that environmental knowledge, mobilised through education activities, is accorded in cultivating 'environmental subjectivities' (Agrawal, 2005). Environmental education has been presented as 'a prerequisite for resolving serious environmental problems at the global level' (United Nations Educational Scientific and Cultural Organisation (UNESCO), 1977) and 'humanity's best hope and most effective means in the quest to achieve sustainable development' (UNESCO, 1997, p. 16). Through the UNESCO-led Decade of Education for Sustainable Development (DESD; 2005-2014), governments have been called to 'integrate the principles, values and practices of sustainable development into all aspects of education and learning' so that students around the world may 'learn the values, behaviour and lifestyles required for a sustainable future and for positive societal transformation' (UNESCO, no date; see also Huckle and Wals, 2015; Manteaw, 2009; Nikoloupolou, Mirbagheri, & Abraham, 2010 for discussions of the DESD). Accordingly, recent years have seen the introduction of initiatives such as Sustainable Schools and Eco-schools in the UK (Evans & Honeyford, 2012; Satchwell, 2013) and the National Green Corps in India (Government of India Ministry of Environment and Forests, no date), alongside the revision of curricula in both countries to incorporate teaching on environmental concerns (Morgan, 2012; Ravindranath, 2007).

Children's status as learners and conduits of knowledge is evoked in many policy framings, wherein children are envisaged to act as a form of 'embodied power' (Foucault, 1994), carrying environmental concerns from educational settings into other spaces of their everyday lives and influencing the practices of those around them, partly through their 'pester power' (Satchwell, 2013, p. 298). The following statement is emblematic of such framings:

Initially, children's own awareness of the determinants of climate change, its impacts and how to mitigate them, is the key to influencing wider household and community actions and, therefore, policy responses. As today's children grow, their ability to address and adapt to the impacts of climate change will be crucial to sustaining development outcomes.

(United Nations Children's Fund (UNICEF), 2008, p. 29)

This statement and others like it indicate the central role that children, as the 'next generation', are accorded in climate change policy. As knowing subjects with capacities to enact and influence moral actions, children are presented as 'agents of change' in their households, communities and the wider socio-political spaces in which their lives are situated. Although valuable in recognising children's moral and social capacities, policy framings like those presented above accord little consideration to how children as a generational group are frequently disadvantaged in their attempts to negotiate and enact agency in societies that sociologists of childhood have argued are 'generationally ordered' in favour of adults (Alanen, 2009; Mayall, 2002; Qvortrup, 2005, 2009). This is one example of the 'un-interrogated assumptions, rationales and technologies' found in environmental governance, which Hobson, amongst others, argues erode the possibilities for action led by the imagined 'environmental citizen' (2013, p. 69).

There are of course strong ethical arguments for educating children about environmental concerns in light of the risks that these concerns may present for children in the present and the future, particularly in contexts of existing structural vulnerability (Horton et al., 2013; Nikolopoulou et al., 2010; Renton & Butcher, 2010). However, the brief review of policy and academic literature presented across the above two sections highlights some limitations to expectations that changes to children's (and other individuals') behaviour will result from environmental education activities. Such expectations are likely to be ill-founded if they do not also take into account powerful challenges to sustainability present in consumer-oriented societies, and if they fail to attend to children's structural positioning in generationally ordered societies.

1.4: Environment and children's everyday lives in India and England

This study was carried out with twenty-six 11-15-year-old children living in England and the Indian state of Andhra Pradesh² and attends to commonalities

² Eight of these children, all living in Andhra Pradesh, participated in *Young Lives*, an international, longitudinal study of childhood poverty. I carried out secondary analysis on their data. The remaining

and differences in how children in a variety of contexts experience and understand 'environment' and carry out everyday practices in response to situated understandings of environment. In setting out some of the macro-level differences between the two countries, I recognise that these are heterogeneous spaces with highly unequal societies and the review that follows is intended to present different aspects of this heterogeneity.³

Human development indicators can serve as one way of contextualising everyday environmental concerns and how these might differ for households within and between the two countries. In India, ranked 135th in the world in the Human Development Index (HDI; UNDP, 2014),⁴ official figures (based on survey data for 2011-12 and calculated in relation to national household expenditures) estimate 22% of the population to be living in poverty (Government of India Planning Commission, 2013). Whilst this is in itself a large percentage, the wide gap between income poverty assessments and healthy standards of living is seen in an assessment that 52% of the Indian population could be considered to be living in 'Multidimensional Poverty', based on non-income deprivations in education, health and living standards (UNDP, 2014, p. 180). One way in which this is evidenced is through deficiencies in water and sanitation infrastructure. Data from HDI 2014 estimate that 316 deaths per 100,000 children under the age of five in India could be attributed to unsafe water, unimproved sanitation or poor hygiene (ibid, p. 214). The same data estimate that 316 per 100,000 children under the age of five die from indoor air pollution in India (ibid, p. 214). This draws attention to one way in which poverty may lead to domestic consumption practices that endanger the health of household members, as the domestic use of biomass as a cooking and heating fuel source has been shown to be the main source of indoor air pollution (World Health Organisation (WHO), 2014).

eighteen children took part in research activities to generate new data for this PhD study and the *Family Lives and the Environment* study in India and England. Further details about the study sample, and about the other research studies to which this study is linked, are provided in Chapter Three.

³ This study was carried out in England, however much of the contextual literature reviewed in this section relates to the UK as a whole.

⁴ Human Development Index (HDI) data are calculated taking into account Gross National Income (GNI) per capita, mean years of schooling and life expectancy rate. All data included here are based on the most recent HDI report (UNDP, 2014).

Alongside the endurance of poverty for many Indians, the rising consumer power of the middle and upper classes has been widely discussed in terms of the environmental impact of these 'new consumers' (see Anantharaman, 2014; Fernandes, 2009; Guha, 2006; Mawdsley, 2004; Myers & Kent, 2004). Guha (2006) has written of a rising class of 'omnivores' within India, whose lives are increasingly differentiated in terms of consumption possibilities from those he terms 'ecological migrants' and 'ecosystem people' (broadly the urban and rural poor). Anantharaman's study of sustainable waste management in Bangalore highlights disparities between the lifestyles of the 'new' middle classes and the urban poor, arguing that attention given to 'pro-environmental' middle class-led initiatives may 'laud the[se] often marginal voluntary actions [...] without bestowing the same 'status' to those who already live within ecological bounds' (2014, p. 182). On the contrary, Mawdsley notes a 'middle class tendency to put the blame for environmental degradation such as deforestation or air pollution squarely on the poor, and especially on population growth' (2004, p. 92; see also Ghertner, 2011; Truelove & Mawdsley, 2011). A report by Greenpeace India draws attention to a 'growing schism of carbon emissions between the two Indias [with] the poor bearing the biggest climate impact burden and camouflaging the other India's lifestyle choices' (Ananthapadmanabhan et al., 2007, p. 2). This report, amongst others, argues that India's global 'carbon footprint' must be seen in the context of enduring poverty for many and the need to integrate poverty alleviation into the national programme of low carbon development (ibid; see also Saran & Jones, 2015; The Energy Research Institute (TERI), 2014).

Intersecting forms of social disadvantage amongst a 'pro-poor' sample of 3,000 children in the Indian states of Andhra Pradesh and Telangana have been extensively explored in the mixed methods *Young Lives* study, carried out over a fifteen year period (2001-2016) in four countries (Morrow & Crivello, 2015). Although absolute poverty across the sample has declined over the course of the study, survey data show enduring and in some cases widening disparities in household consumption levels between social groups (Dornan, 2011; Galab, Kumar, Reddy, Singh, & Vennam, 2011; Young Lives India, 2014). Drèze and Sen, writing on the 'unfinished agenda' of the Indian Government's macro-level economic gains in recent years, likewise note how the 'congruence of

deprivations' in Indian society continues to increase the disparity between 'the privileged and the rest' (2013, p. 242). Studies exploring the lifestyles of India's middle and affluent classes (who are predominantly based in cities) note growing polarities between the everyday experiences of children occupying different socio-economic positions in cities, and how socio-economic privilege can afford some level of protection from urban environmental hazards (Fernandes, 2009; Guha, 2006; Mawdsley, 2004, 2009).

In the UK, ranked 12th in the world for Human Development (UNDP, 2014), relative poverty is nonetheless experienced through the incidence of income inequality. An estimated 15% of the national population (rising to 21% after housing costs) were living in relative poverty in 2013, calculated as individuals living with a household income 60% lower than the UK median household income (Department for Work and Pensions (DWP), 2014, p. 4). The global economic 'downturn' has been seen as a driver for widening income inequalities in the UK (Belfield et al., 2014; Browne, Hood, & Joyce, 2014; Penny, Shaheen, & Lyall, 2013). Ridge's (2009) systematic review of research into the experiences of children and families living in poverty in the UK over a ten year period (1998-2008) shows how, in a relatively wealthy society riven by inequalities, materially poor children may be particularly disadvantaged as they grow up in social and institutional cultures not always organised to accommodate poverty. Across the research reviewed, children recounted restricting their personal consumption (Ridge, 2006), experiencing difficulties sleeping in cold homes (Rice, 2006), self-excluding themselves from school trips and leisure activities (Crowley & Vulliamy, 2007; Ridge, 2002) and taking on more household responsibilities, including caring, to free up parents' time for employment (Ridge, 2006). This documentation of children's coping strategies supports Ridge's argument that children in poverty in the UK are 'key contributors to family life, playing an important role in mediating and managing the experience of poverty' (2009, p. 34).

As in India, direct links between socio-economic positioning, consumption levels and carbon emissions have been noted in research with UK households. Research commissioned by the Joseph Rowntree Foundation found that energy emissions of the richest income decile were up to three times those of

households in the poorest decile (Preston et al., 2013). Alongside recognition of the need for widespread macro-level reductions in emissions, this research, like that carried out by Greenpeace India (Ananthapadmanabhan et al., 2007) draws attention to the need for ‘common but differentiated’ approaches in government-led action on reducing carbon emissions, taking into account local disparities in consumption levels in meeting targets set in national plans on climate change. Both reports also highlight the need for sustained intervention to address the conditions of poverty (relative to context) that constrain choices around the everyday use of resources for poor households.

In both countries, however, policies emerging from national ‘sustainable development’ agendas often have an individualistic focus that calls on households to make changes to their everyday lives with little attention to structural factors that may complicate such changes. In the UK, government policies promoting ‘pro-environmental behaviours’ usually centre on minimising household resource use, as seen in the identification of ‘behavioural goals’, such as better energy management, minimising water use or using public transport for households, in one policy framework (Department for Environment, Food and Rural Affairs (DEFRA), 2008). In India, in addition to similar messages about lowered resource consumption, encouraging individual engagement in ‘clean-up’ activities has been a major area of focus in government environmental policies in recent years, culminating in the current *Swaachh Bharat* (Clean India) initiative, which encourages citizens to pledge to committing two hours per week to promote public cleanliness (Roy, 2014). Roy reflects that this initiative has been targeted at all citizens, but particular those living in poor and unsanitary living conditions, whose everyday activities are often vilified by other sectors of Indian society (Ghertner, 2011; Mawdsley, 2004; Truelove & Mawdsley, 2011). Roy notes a focus on individual activities to the exclusion of other actors in this initiative, as ‘the pledge [...] [includes] no mention of environmental pollution—whether of water or air, caused, not so much by the average citizen but by heavy industries, often transnational, and the land degradation that very often accompanies schemes of ‘development’ (2014, no page numbers).

In different ways and to different degrees in India and England, socio-economic disadvantage can exacerbate environmental vulnerabilities as this intersects with the structural and climatic qualities of the environment in which a household is located. Studies in the UK have drawn attention to how residents of some of the most socio-economically deprived local authorities may be disproportionately exposed to environmental ‘bads’ such as carcinogenic pollution by highlighting the location of high-polluting factories in these authorities (Brook Lyndhurst, 2004; Bullock, Cottray, & McLaren, 2000; Lucas et al., 2004). In India, land degradation has been shown to minimise agricultural productivity, as well as increasing the exposure of local households to so-called ‘natural’ disasters (Government of India Ministry of Environment and Forests, 2009). Human Development data indicate that between 2005 and 2012, 1,049 and 11,130 per million people in the UK and India respectively were adversely affected by a ‘natural’ disaster (UNDP, 2014, pp. 211-214). Notwithstanding the impact of such events on households in both countries, this underscores the different degrees of environmental vulnerability in the two countries.

Beyond the decision to work in countries with stark differences in climate, socioeconomic histories and policy priorities, decisions shaping the design of this study were informed by an understanding of how the highly unequal concentration of wealth and resources between regions and households within India and England might impact on children’s everyday experiences of environment. For this reason, I set out to work with relatively affluent and poor children in rural and urban contexts in both countries, as further detailed in Chapter Three.

1.5: Overarching aims, research questions and contribution of this study

As alluded to in its title, *Environment and children’s everyday lives in India and England: Experiences, understandings and practices*, this study comprises three areas of thematic interest through which I explore children’s narratives of environment and everyday life. These areas of interest translate into three

interrelated substantive and methodological aims and are articulated through three research questions as set out below.

The first substantive aim of the research is to *explore and highlight the local particularities of how 'global' environmental concerns are experienced, understood and narrated by children in different contexts in order to consider the intersecting local-global factors that contribute to situated environmental vulnerability*. Related to this, the research has the methodological aim to *consider commonalities and differences in children's situated environmental experiences and understandings through constructing a cross-national sample that incorporates various forms of structural difference and includes data generated for another research study*. These aims cohere in the first research question:

1. How do children's narratives of everyday life generated in different contexts highlight the varied ways in which they are positioned in relation to different environmental concerns, and how might this variety affect their responses to such concerns?

The second substantive aim of the research is to *progress understandings of children's interpretive capacities by attending to how children construct situated understandings of environment through drawing on their everyday experiences and engaging with socially-constructed knowledge of 'environment'*. Related to this is the methodological aim to *use multiple qualitative methods to generate insights into the multi-sensory processes through which children come to know and value their environments*. These aims cohere in the second research question:

2. In what ways do forms of knowledge presenting the environment as an object of concern enter into children's lives, and how do children reconcile these forms of knowledge to their embodied experiences of their environments?

Thirdly, and most centrally, the research aims to *critically consider theories of children's agency by bringing these theories into interplay with children's*

assessments, shared through accounts of everyday practices and negotiations, of their own and others' agency to act on expressed environmental concerns. Methodologically, the study aims to elucidate the potential of a narrative approach to explore children's agency, drawing on a range of research materials to analyse children's situated responses to the environmental knowledge with which they come into contact in everyday life. These aims cohere in the third research question:

3. How do children's accounts of everyday practices and negotiations with those around them highlight the complexities for children of enacting 'pro-environmental' knowledge?

In addressing these questions, this study aims to contribute to a growing literature comprising cross-national work on childhood, agency and children's everyday lives (Ansell & van Blerk, 2007; Balagopalan, 2011; Bordonaro & Payne, 2012; Dyson, 2014; Panelli, Punch & Robson 2007; Punch & Tisdall, 2012; Robson, Bell and Klocker, 2007). It also aims to inform theoretical understandings of the interdependence of individuals and their environments (Agrawal, 2005; Jasanoff, 2010; Manuel-Navarette & Buzinde, 2010; Urry, 2011), and specifically to consider how environmental education might support children's understandings of themselves as interdependent socio-ecological actors (Chawla, 2007; Hart, 1997; Hayward, 2012). Additionally, the study aims to consider the contribution that a narrative, multi-method and cross-national approach to studying children's environmental experiences and understandings and their agency to respond to 'pro-environmental' messages might make to future research in childhood studies and environmental education.

1.6: Structure of this thesis

In this chapter, I have set out the background to this study and its aims and research questions. Chapter Two looks in greater detail at some of the existing scholarship on childhood, environment and children's everyday lives referenced in the above sections in order to articulate areas of theoretical interest which might be fruitfully pursued in this study. In Chapter Three I present the

theoretical framework for the study and how this has shaped the methodology and methods used to generate and analyse data. I also consider the ethical implications of working across generations and cultures, as part of a wider research team.

Chapter Four presents secondary analysis of eight children's data generated for *Young Lives*, a longitudinal study of childhood poverty carried out in four countries, including India. I explore how working with these data served as an introduction to the situated ways in which children living in contexts of poverty in Andhra Pradesh experience and respond to embedded forms of environmental vulnerability in their everyday lives. I also consider how employing a narrative approach to analysing these data, which were not originally generated with narrative analysis in mind, illuminates children's constrained agency.

Chapters Five to Seven present and analyse new data generated for this study. Chapter Five explores the affordances of children's everyday environments, as related in children's narratives. I consider how children's interactions with the natural environment are mediated through factors such as their family and peer relationships, the material affordances of their homes and the changing climatic and physical qualities of their environments. Chapter Six attends to the ways in which children brought different forms of socially-constructed knowledge about the environment into interplay with their everyday experiences of environment to construct situated understandings of environment and environmental concern in research activities. Chapter Seven considers children's assessments of their own and others' agency to act on environmental knowledge and expressed environmental concerns by attending to children's and families' accounts of the complexities of negotiating and enacting 'pro-environmental' practices in the spaces of their everyday lives.

In Chapter Eight, I discuss the research questions outlined above in relation to analyses presented over Chapters Four to Seven and consider how the methodology and methods employed in this study enabled me to address these questions. I also review the implications of these analyses for environmental policy and practice and suggest areas for further study.

Chapter Two: Environment and children's everyday lives in existing scholarship

As discussed in Chapter One, the notion of children as 'agents of change' has become increasingly common in global environmental governance and national climate change policies in recent years (Renton & Butcher, 2010; United Nations Children's Fund (UNICEF) UK, 2013). This notion is not limited to environmental policies but reflects a broader political move to recognise children's rights and responsibilities in all matters affecting them, as enshrined in the United Nations Convention on the Rights of the Child (CRC; Office of the United Nations High Commissioner for Human Rights (OHCHR), 1989). Following the near-universal ratification of this document, political attention to children's rights has dovetailed with significant theoretical interest in children's agency.

The chapter begins by reviewing how scholars of childhood working across contexts have shaped and critiqued political and theoretical understandings of children's agency. I look in particular at studies that have used a relational lens to explore how children negotiate and enact agency in different contexts. I then discuss key concepts underpinning studies of humans in their environments, before reviewing existing work that draws on these concepts in three areas of direct relevance to this study; children's embodied experiences of their environments; children's responses to educational messages presenting environment as an object of concern; and children and families' negotiations of everyday practices, including those prompted by such messages. I end the chapter by considering how this study might contribute to areas for further exploration identified through these discussions of existing work.

2.1: Children's agency: Theoretical and political developments

Childhood studies as an inter-disciplinary field is centrally concerned with developing critical understandings of children as social actors with capacities to

participate and enact changes in their everyday environments (James and James, 2004; Qvortrup, Corsaro and Honig, 2009; Tisdall & Punch, 2012). The notion of children as social actors was a conceptual foundation of the 'new social studies of childhood' (James, Jenks and Prout, 1998; James and Prout, 1990; 1997), developed in the early 1990s as a 'counter-paradigm' to what was seen as a predominance of socialisation theory and developmental psychology as epistemological lenses framing the study of childhood in the preceding decades (Tisdall & Punch, 2012, p. 251). According to the authors of the 'new social studies of childhood', such framings meant that children were frequently presented as 'a defective form of adult, social only in their future potential but not in their present being' (James et al., 1998, p. 6).

This 'counter-paradigm' to studying childhood has provided a platform for many scholars to demonstrate what James and James term 'children's agency in childhood's structure' (James & James, 2004, p. 23). Studies have demonstrated, for instance, children's agency in making and negotiating decisions relating to how they spend their time in and out of school (Christensen & James, 2008a; Zeiher, 2001), their use of different spaces within and outside of the home (Christensen & O'Brien, 2003; Jones, 2007; Matthews & Tucker, 2007; Oswell, 2013; Valentine, 1996, 2003; Zeiher, 2001), their work undertaken for their own households (Dyson, 2014; Katz, 2004; Morrow & Vennam, 2010; Punch, 2001, 2007a) and paid work outside of the home (Klocker, 2007; Nieuwenhuys, 2009; Punch, 2007b). These studies and many others highlight children's capacities to 'actively define, produce and reclaim space' amidst 'the obligations and restrictions of their everyday lives' (Robson, Bell, & Klocker, 2007, p. 136).

Whilst recognising attention to children's capacities for agency as an important step towards what Mayall terms 'the upgrading of childhood as social status' (2002, p. 2), some scholars argue that this has not been adequately matched by considerations of the structural factors that shape and constrain children's possibilities for negotiating agency, particularly outside of the home (Alanen, 2015; Ansell, 2009; James, 2010; Mayall, 2012; Tisdall & Punch, 2012). Tisdall and Punch identify a number of 'mantras' in empirical studies of childhood that are 'almost invariably reproduced' but not always critically interrogated, principal

amongst them children as social agents (2012, p. 251). Oswell observes that 'the notion of the 'child-as-agent', as a 'sacred object' of the sociology of childhood, seems unwittingly to have all the hallmarks of a social universal' (2013, p. 15). Like Tisdall and Punch, Oswell locates this notion to the historical period in which childhood studies developed, characterised by political moves to formally recognise children's rights (ibid, p. 15). As Nolas observes, 'children's participation rights internationally are framed within a discourse of entitlement and self-determination emphasising their capabilities, achievements and their agency' (2015, p. 157).

Some of the complexities arising from attempts to combine political and theoretical work on children's rights and agency are detailed in Bühler-Niederberger's review of childhood sociology in ten countries, as she notes how 'the sociological content' of concepts such as agency can 'get lost in favour of their advocatory content', becoming 'more affirmative concepts' that risk 'los[ing] their critical orientation towards social reality' (2010, p. 381). Similar observations are found in Kraftl's discussion of the 'often problematic elision of childhood with hope' (2008, p. 81), wherein children become a 'repository for hope in the diverse political agendas of human rights and well-being' in ways that frequently overlook attention to children's own more modest articulations of 'everyday hope' (ibid, p. 83). Nolas likewise observes that popular images of children's and young people's participation in school and community-level activities sustain the 'sociological and public imagination about what [childhood and youth] activism might look like', yet eclipse the 'fluid, nuanced, ephemeral and improvised ways' in which children exercise agency in their everyday lives (2015, p. 162). Popular understandings of children's participation can moreover eclipse the ways in which '[children and young people's] opportunity to participate is usually dependent on the goodwill of adults involved in the child's life' (Lansdown, 2010, p. 13). This calls for more attention to 'child-adult spaces for intergenerational dialogue, learning and identity formation' in contextualising children's participation (Mannion, 2007, p. 410; see also Lee, 2001a; Tisdall and Punch, 2012).

Calls for more attention to children's relationships reflect scholarly observations of the dissonance between individualist understandings of children's agency

and children's everyday experiences of negotiation and interdependent action (Jamieson & Milne, 2012; Lansdown, 2010; Mannion, 2007; Tisdall & Punch, 2012). Oswell writes of the 'myth of the individual child' as 'an ideological fiction or an effect of forms of power and knowledge' driven by the governing technologies of neo-liberal states that promote individual responsibility and self-governance (2013, p. 263; for the theoretical foundations of this argument, see Foucault, 1982, 1994). His argument resonates with the conclusion reached by Middlemiss in a recent review of studies of the family and intimate relations in minority world contexts, that 'individualisation is not as widespread in people's daily lives, or as universal an experience, as the theorists imply' (2014, p. 939). Here, there is considerable potential for learning from studies carried out in majority world contexts that have exemplified the limitations of individualist understandings of children's rights and agency informed by apparently 'global' policy instruments (Bordonaro & Payne, 2012; Klocker, 2007; Morrow & Pells, 2012; Twum-Danso, 2010). In an editorial introducing studies of childhood in India, Balagopalan draws attention to the further epistemic gain that more 'collectivist' understandings of agency may offer to childhood scholars:

To what extent do ideas on children's agency assume that a child is an autonomous subject whose life in a specific cultural field does not affect his/her capacities for reflexive mediation? Does research that privileges children's voices construct the child as independent of social and cultural signification and view the languages of these voices as self-evident? Concepts central to the field of 'childhood studies' – children as social actors, issues around agency – can gain from an epistemic engagement with Indian modernity and childhoods [...]

(Balagopalan, 2011, pp. 295-296)

Attention to the structural complexities of how children exercise agency through relationships is seen in the work of sociologists of childhood, who have developed 'generation' as a 'conceptual starting point and an analytical tool for framing the study of childhood', which can fruitfully be considered in relation to other structural processes to produce 'intersectional analyses that [...] account for the complex social phenomena that make lived childhoods' (Alanen, 2009, p. 163). For structural sociologists, the 'generational ordering' of society is a manifestation of 'the deep inequality of any societal goods' (Buhler-Niederberger, 2010, p. 381), akin to other forms of structural positioning that

create and sustain advantage for some members of society to the detriment of others. Reflecting on four studies carried out with children in England, Mayall argues that childhood is best understood as a 'minority social status', as children's lives are powerfully structured by adult-led organisations of their everyday experiences (2002, p. 20). Qvortrup similarly writes of children as 'the less powerful part in an adult world' and, like Mayall, argues for more scholarly work to consider the ways that children in different contexts operate within structural constraints as a way of improving the status of childhood:

Making children's constructive roles visible, as well as laying bare the structural constraints that they are exposed to, would be one way in which childhood research might assist children in regaining status as members of the public without sacrificing the achievements obtained in modern societies of childhood as a protected position.

(Qvortrup, 2005, p. 19)

A number of scholars have argued that the concepts of 'generation' and 'generational ordering' open the way for scholars to consider commonalities and differences in how children experience generational processes in varying cultural contexts (Ansell, 2009; James, 2010; Qvortrup, 2009). In constructing an argument for integrating scholarly attention to commonalities and differences in children's lives, James presents 'the commonalities of childhood – social stratification, culture, gender, generational relations' as 'the common threads that permeate the fabric of the social category of childhood, and which are used to define childhood structurally, as a separate generational space' (2010, pp. 493-4). Continuing a metaphor of the 'fabric' of childhood, James argues that attending to these commonalities does not preclude but may indeed illuminate scholarly understandings of the situated ways that childhoods are experienced in different contexts, as scholars see how the 'warp' or 'common threads' fit together with the 'weft' of childhoods, creating 'the detailed patterns that describe the diversities of childhood' (ibid, p. 493).

Other scholars have written on the value of considering commonalities and differences between the lives of children inhabiting different cultural contexts (see Holt & Holloway, 2006; Mayall, 2012; Panelli, 2002; Panelli et al., 2007; Punch & Tisdall, 2012, 2013). Introducing an edited collection on children and

young people's relationships across minority and majority world contexts, Punch and Tisdall highlight the potential that 'a more integrated global approach' might offer for moving childhood studies forward, in particular by enabling scholars to 're-think[...] claims of children and young people's agency and uncritical assertions around children and young people's participation and voice' (2012, p. 242). This is also noted by Robson, Bell and Klocker who, reflecting on a number of studies of rural childhood and youth in minority and majority world contexts, note that although constraints on children's capacities to exercise agency may be of 'a different kind' across contexts, 'there are few circumstances in existence where young people feel able to negotiate with adults on an equal footing' (2007, p. 241).

Having reviewed scholars' calls for more critical, socially-sensitive and globally-informed understandings of children's agency, I turn now to empirical work carried out in a variety of contexts that explores how children's agency is constituted through relationships of interdependence with the people, materials and spaces making up their lives.

2.2: Exploring children's agency through relationships, materials and spaces

Exploring children's agency through a relational lens necessitates attention to negotiation, as captured in Mayall's distinction between what it means to be a social actor and a social agent:

A social *actor* does something, perhaps something arising from a subjective wish. The term *agent* suggests an additional dimension: negotiation with others, with the effect that the interaction makes a difference – to a relationship or a decision, to the workings of a set of social assumptions or constraints.

(Mayall, 2002, p. 21; authors' italics)

As arguably the main arena for children's negotiations with those around them, attending to children's lives at home offers significant insights into children's agency through relationships with other family members. Drawing on empirical work with 9-10-year-olds in London, Mayall identifies three thematic areas that

illuminate how children exercise agency in and around their homes: through participation as a family member in the social order of the family; through the project of 'self-formation' – that is, investing in 'the project of [one's own] life' by developing skills and interests; and through resistance to adult control (Mayall, 2001, pp. 122-124). The ways in which children exercise agency in the three thematic areas identified by Mayall can be seen in other studies carried out in a variety of contexts.

A number of studies carried out in contexts of economic constraint highlight children's awareness of the mutual inclusivity of their own interests – for example, improving their position within the family or constructing a reputation as a good worker – with the wider economic interests of their families. Punch's study of family relations of interdependence in rural Bolivia (2001, 2004, 2007a, 2007b) frames these relations in 'the cultural expectation [...] that children should have a strong sense of responsibility and obligation to their family' (2001, p. 24), yet notes how children negotiate these responsibilities in relation to their own preferences for completing (or not) particular tasks. Punch details a number of 'avoidance' and 'coping' techniques employed by children when asked to complete more arduous household tasks, and highlights how children's possibilities for negotiation may be strengthened by their position as economic contributors to the household (ibid, p. 24). Punch's observation of children's sense of pride in making contributions to the household (ibid, p. 27) highlights how children's participation in family activities may at times overlap with the 'project of self-formation' (Mayall, 2001, p. 122).

In her study of youth, environment and agency in the Indian Himalayas, Dyson notes that 'children and youth fulfil work demands and seek to impress their seniors because they see that it is in their interest to do so, not because they are straightforwardly 'programmed' by their parents to act in a certain way' (2014, p. 137). In a context where young people's shifting possibilities for work, marriage and economic betterment remain closely entwined with the socio-economic position of their families and their own (often public) performance of completing household work, Dyson conceptualises young people's agency to negotiate their futures as 'active quiescence', wherein 'agency emerges not through children and youth trying to escape the home and escape

independence, but through patient efforts to strengthen social networks' (ibid, p. 137). Research published from *Young Lives* in India also highlights children's active responses to the constrained economic circumstances experienced by their families, as the authors note that 'there is an expectation that children will share, rather than be shielded from, the burden of family difficulties' (Boyden & Crivello, 2012, p. 176). Similarly, reflecting on the agency of Tanzanian girls engaged in often exploitative domestic work to supplement their family income, Klocker draws attention to the entwinement of the girls' subjectivities in the present and how they imagine their own and their families' futures, concluding that they 'believe that this decision [to enter domestic work] will produce the best possible outcome for themselves and their families' (2007, p. 92). Klocker terms the girls' agency as 'thin' in acknowledgement 'both of their difficult circumstances *and* their efforts to survive and build better lives' (2007, p. 92; author's italics).

In contexts where children's material contributions to home life may be less visible, studies show children's contributions to family life in other ways. This can again be seen in observations generated through *Young Lives* in India where, alongside work to support their households economically, children spoke of acting to minimise the suffering of others. Boyden and Crivello present the example of one girl who recounted how, during a period in which her father was ill and unable to work, other family members agreed to eat smaller portions of food but to conceal this from their father to prevent him from becoming distressed (2012, p. 177). Ridge's systematic review of research with children living in poverty in the UK also highlights that children 'have considerable empathy with their parents and understand the financial pressures they are under', and may minimise their own contribution to household expenses through strategies such as excluding themselves from school trips or restricting their personal consumption (Ridge, 2009, p. 31). Reflecting on research carried out with children in London, Mayall draws attention to children's 'moral work in maintaining and constructing relationships' at home and in other spaces, observing that 'children comforted parents, showed tolerance and dealt with varying parent and sibling moods and behaviour, maintained contacts with non-resident fathers and grandparents, and assessed and coped with teachers' bad moods' (2001, pp. 125-126). This leads Mayall to argue that there is

'incompatibility between the assigned incompetence [of children] and their competence in practice' (ibid, p. 125; see also Mayall, 2002).

The studies discussed above illuminate Mayall's (2001) argument that children's exercise of agency at home, as well as in broader social settings, is seen not only through children's individual actions (for example, for the project of 'self-formation') but also through actions carried out for the household, which involve resistance and cooperation. Studies carried out in contexts of poverty particularly show how the confluence of economic circumstances and cultural norms may shape understandings of children's expected role within the family. Together, these studies support Oswell's contention that the 'individual child' as a 'distinct actor' within the family is a 'myth' of minority world policy discourse (2013).

As well as considering children's relationships of interdependence with other individuals, a number of scholars have drawn on post-structural theories of materiality, network and assemblage to extend attention to the 'more-than-social' relations through which children exercise agency (Kraftl, 2013; Lee, 2001a, 2001b; Oswell, 2013; Prout, 2005; Stryker & Yngvesson, 2013). Lee applies Deleuze and Guattari's (1976) notion of assemblage – temporary arrangements between incomplete objects where the components of arrangements supplement one another – to consider how material objects and technologies serve as extensions of children's capacities (Lee, 2001a, 2001b). Lee presents his work as a challenge to binarised notions of 'adult beings' and 'child becomings', positing the notion of all humans as 'multiple becomings' who 'find themselves in the midst of an open-ended swirl of extensions and supplementations, changing their powers and characteristics as they pass through different assemblages' (2001a, p. 115). Influenced by Callon and Latour's (1981) actor network theory, Oswell incorporates attention to children's material interactions into his 'analytics of agency' which he conceptualises as a 'complex arrangement [...] constructed, mobilised and dispersed [through] languages, practices, technologies and objects' (2013, p. 85). Oswell considers how changing family relations are influenced by 'rearticulations of domestic geographies over time', for example, spatial divisions and the entry of networked communication devices into the home (2013, p. 110). He reflects that

'the material resources [...] assembled in children and young people's bedrooms [...] do not simply constitute a set of tools to be used by prior constituted agents; rather, these resources realign and reconfigure that agency as a multiple innovation' (ibid, p. 111).

Whilst theories of the materiality of children's lives often rely on understandings of normalised technology use which may be unattainable to many children, there is some conceptual overlap between these theories and the concept of 'socio-ecological agency' developed by environmental sociologists Manuel-Navarrete and Buzinde (2010). The authors, who also draw on the work of Callon and Latour (1981), propose this concept as a 'new understanding of what it means to be human in the global change era', illuminating 'people's ongoing interactions with life support structures as well as social structures' (Manuel-Navarrete & Buzinde, 2010, p. 136). Considering the notion of 'socio-ecological agency' together with Oswell and Lee's work on the materiality of childhoods offers insights into the ways that children's access to material objects (or lack thereof) may intersect with the spatial characteristics of children's environments to mitigate (or increase) children's exposure to environmental hazards.

Scholars have also attended to how children's opportunities to exercise agency differ between spaces according to their varying social positioning in these spaces. Reflecting on her work in rural Bolivia, Punch observes that children may have more negotiating power at home, where they are mutually involved alongside parents in the 'survivability' of the home. She compares this with the lesser sense of interdependence between students and teachers, arguing that this in turn diminishes children's 'negotiating power' in school (Punch, 2004, 2007a). Mayall also draws a distinction between home as 'the main site where children's moral agency is expected and enacted' and school, where she argues that children internalise ideas that 'adults know best' (2002, pp. 110-111). Scholars have observed how children's possibilities to exercise agency may differ between home and public spaces, and that these may be shaped by children's adherence or resistance to contextually-situated social norms that frequently present children in public spaces as 'out of place' (Jamieson & Milne, 2012; Matthews & Tucker, 2007; Valentine, 1996, 2004; Woolley, 2006).

Valentine (2004) notes the significance of home as a site for children to perform their socio-spatial competence through domestic responsibilities, which may subsequently support their negotiations with parents over their independent use of public spaces.

The studies reviewed above show some of the intersecting ways in which the social, material and spatial aspects of children's relationships influence the ways in which they exercise agency in everyday life, whether through cooperation, negotiation or resistance. Amidst the cultural differences framing this work, these studies support the contention that the notion of children as 'individual' agents is something of a political 'myth' (Oswell, 2013), that does not always consider how different structures, contexts and relationships 'thicken' or 'thin' children's agency (Klocker, 2007, p. 85). As a way of attending to the multiple relational and structural factors influencing children's agency, multi-scalar approaches used by some children's geographers may be useful in situating children's everyday actions in wider understandings of the structural factors shaping children's lives (see discussions by Aitken, 2001; Aitken, Lund & Kjörholt, 2007; Ansell, 2009; Holloway & Valentine, 2000b; Holt & Holloway, 2006; Punch et al., 2007). Reflecting on work carried out across minority and majority world settings, Punch and colleagues identify a 'continuum of power relations' within which the balance of power between young people and those around them 'moves back and forth according to multiple factors', which may be 'physical, socio-cultural, economic and political [...] in relation to both global and local conditions' (Punch et al., 2007, p. 217).

Attempts to critically consider children's agency in light of broader local-global processes are instructive for the current study, which considers how children's agency to act on environmental messages are shaped not only by their immediate relationships but also by powerful societal institutions and structures that, as Threadgold observes, may simulate a 'performance of seriousness' to tackle environmental concerns, whilst simultaneously working to 'maintain democratic consumer capitalism and sustain the unsustainable' (2011, p. 25). This as yet underexplored area of study presents a novel arena for progressing understandings of children's agency through considering the situated ways in

which children in different contexts respond to 'pro-environmental' messages in ways that demand material, spatial and social negotiations.

2.3: Conceptualising environment in an era of global concern

Nature and human life

Whilst geographers and anthropologists have long argued that 'environments have histories from which humans cannot be excluded' (Agrawal & Sivaramakrishnan, 2000, p. 9), most sociologists have traditionally overlooked analysis of the relationship between society and nature (Dunlap & Catton, 1994; Urry, 2011; Woodgate, 1997). Catton and Dunlap trace this to an 'ingrained assumption that the welfare of modern societies is no longer linked to the physical environment', engendered by the historical context of economic growth and apparent resource abundance in which minority world sociology developed (1978, p. 6; see also Macnaghten and Urry, 1998; Beck, 2010). Environmental scholars have also highlighted the tendency of popular images, such as the earth from space – considered by many as foundational to the galvanisation of environmentalism into a purportedly 'global' movement – to present nature as depopulated. As an image that very few humans will ever see in practice, Ingold writes that the image of 'spaceship earth' may in fact contribute to a sense of alienation from 'nature' (2000, p. 211; for further discussions on this image, see Heise, 2008; Jasanoff, 2010; Sachs, 1997). Jasanoff highlights the unhelpful ontological separation of humans and nature in her critique of the World Commission on Environment and Development's famous description of the earth from space as 'a small and fragile ball dominated not by human activity and edifice but by a pattern of clouds, oceans, greenery, and soils' (WCED, 1987, p. 308). Jasanoff writes of the need to 'replace the 'not-but' dichotomy [...] with the integrative logic of 'both-and'' (2010, p. 238).

Exposing the fallacy of a nature/culture dualism has been the project of environmental sociology for almost four decades (Catton & Dunlap, 1978; Dunlap, 2010) and has gradually entered mainstream sociological analysis,

influenced by recognition of the intensifying social consequences of environmental crises and evidence for human activity as a cause of global climate change (IPCC, 2007, 2014; see also Dunlap & Catton, 1994; Hulme, 2010; Lidskog, Mol, & Oosterveer, 2014; Szerszynski & Urry, 2010; Urry, 2011). Amongst the most promising conceptualisation of human-nature relations developed through this work is Manuel-Navarette and Buzinde's notion of 'socio-ecological agency', introduced above. This notion disturbs the dominant 'worldview through which [...] independent human agents perceive modernity as freeing them from exposure to 'capricious' environmental contingencies', and argues that 'human beings have always been, and will always be, organically embodied, and socio-ecologically embedded' (2010, p. 137). There is conceptual overlap between the authors' notion of 'socio-ecological agency' and the work of scholars who have drawn on theories of materiality and socio-technological hybridity to challenge dualistic understandings of nature and culture (Bennett, 2010; Callon & Latour, 1981; Haraway, 1991; Latour, 1993; Martello & Jasanoff, 2004).

Conceptualisations of nature developed by scholars working in what Escobar and Rocheleau (2005) term the 'emergent ecologies' of the majority world pose significant challenges to the nature/culture dualism. Attention to the practical utility of nature in everyday life for many people whose livelihoods are literally rooted in the natural environment can be seen in the elaboration of a notion of 'social nature' in studies on environment in India (Agrawal & Sivaramakrishnan, 2000; Kothari & Parajuli, 1993; Shiva, 1993, 2006). An understanding of human-nature interdependence underpins Indian environmental historian Guha's proposal for 'social ecology' as 'both an intellectual paradigm [for studying environment] and a guide to civic or state action' (2006, p. 88). These conceptualisations highlight important contextual differences in the geo-historical spaces in which ontological framings of humans and nature have developed and illuminate the value in considering multiple perspectives on the role of nature in supporting or threatening human life in contemporary studies of environment.

The 'global' environment

In an age of apparently 'global' environmental concern, much environmental scholarship, particularly in the minority world, considers 'the environment' and 'environmentalism' in the singular, feeding the global construction of knowledge alluded to by political ecologists Peet, Robbins and Watts in the quotation opening this study, where 'specific crises cohere into a singular acknowledgement that there is a universal environmental crisis, with the potential to become catastrophic: climate change' (2011, p. 13). Minority world sociologists concerned with 'climate change' are amongst those who have drawn on notions of 'cosmopolitanism' to bolster arguments for global responses to environmental problems (see Beck, 2010; Giddens, 2009; Hulme, 2010).

A number of scholars have drawn parallels between the presentation of a global 'imagined community' through universalising images and narratives and Anderson's (2006 [1983]) descriptions of the work of political actors in constructing national 'imagined communities' (Heise, 2008; Jasanoff, 2004; Macnaghten, 2003). Jasanoff considers the image of the earth from space in relation to how Anderson described a map as 'a 'logoized' image of political space', writing that the image functions in much the same way: 'It unites the Earth by making invisible the divisions within it' (Jasanoff, 2004, p. 38). Macnaghten, writing in particular about the UK from the 1970s onwards, identifies the role of 'resourceful, radicalised and effective NGO activity' in supporting the 'dominant storyline of the 'fragile earth' [...] in need of care and protection from an imagined global community' (2003, p. 65). Jasanoff draws on Haraway's work on socio-technological hybridity to consider how people, objects, events and places all become 'heterogeneous components in a knowledge network [that] participate in varying ways in the production and uptake of environmental knowledge' through their treatment in the 'laboratories of modern environmental science' (Jasanoff, 2010, p. 245; see Haraway, 1991).

Although forms of environmental knowledge, particularly those relying on iconic images and presentations, can be effective in galvanising environmental concern, it is worth recalling Ingold's (2000) caution that globalising images may

alienate individuals from their immediate environments – or in Jasanoff’s terms, ‘detach knowledge from meaning’ (2010, p. 233) – if they do not appear to represent the environments that they sense and interact with in their everyday lives. Macnaghten and Urry observe that much writing about ‘the environment’ in the singular ‘has not addressed the complex, diverse, overlapping and contradictory ways in which people sense the world around them and come to judgements of feeling, emotion and beauty about what is appropriately ‘natural’ and ‘unnatural’” (1998, p. 104). Amidst narratives of a ‘global community’, it is also important to remember the uneven global distribution of knowledge, resources and political power as discussed in the rationale for this study in Chapter One (see Manteaw, 2009; Roberts & Parks, 2006; Shiva, 1993). This means that not all planetary residents will be equally exposed to globalising narratives, or may have imbibed these to the same extent in how they interpret changes taking place in their environments (see, for example, research by Moghariya & Smardon, 2014, into understandings of ‘climate change’ in rural India). Recognition of multiplicity in understandings of environment underpins Guha and Martinez-Alier’s work on ‘varieties of environmentalism’ (Guha, 2006; Guha & Martinez-Alier, 1997), as well as Jasanoff and Martello’s call to ‘bring the local back in’ to environmental governance amidst powerful globalising narratives (2004, p. 338).

Space and place in local-global contexts

Contemporary theories of human-nature relationships build on a rich heritage of theoretical work foregrounding the role of ‘place’ and ‘place-making’ in establishing a human sense of belonging and of meaningful existence in and with the surrounding environment (for example, Casey, 2001; Heidegger, 1971; Latour, 1993). Many contemporary studies on ‘place-making’ have drawn on the phenomenological tradition established by Heidegger (1971) and Merleau-Ponty (1962) to consider the affective relationships that individuals build and sustain with constituent parts of their environments through embodied practices and explorations in and of these environments (for example, Anderson, 2004; Bartos, 2013; Ingold, 2000; Pink, 2012; Sheller & Urry, 2006). Some researchers have considered how individuals’ sense of being rooted or invested in a place may lead to an ‘ethics of environmental care’ (Budruk, Thomas, &

Tyrrell, 2009; Heise, 2008; Jasanoff, 2010; Relph, 1989). In children's geographies and environmental education research in particular, scholars (for example, Chawla, 2007; Hart, 1979, 1997; Malone, 2013) have considered possibilities for engaging children in practices of environmental care through 'place-based' environmental education, as further discussed below.

'Place' as a space invested with meaning is often presented in distinction to the more general concept of 'space' as somewhere that humans pass through, akin to Augé's (1995) theorisation of the 'non-places of super-modernity'. However, some scholars have protested the way in which this presentation empties the concept of 'space' of meaning, leading it to be characterised by what it is not (Christensen & Prout, 2003; Manuel-Navarrete & Redclift, 2010; Massey, 2005). Christensen and Prout map the dualistic distinction between space and place onto the nature/culture dualism (discussed above), and point out the limitations of the two: 'attempts to make 'space' all natural delete the cultural and human work that goes into making it. Conversely, making 'place' all cultural deletes the elements of nature that necessarily go into the making of a place' (2003, p. 137). Massey's work is also significant for distinguishing between 'place' and 'space' whilst attributing relevance to both concepts. Massey presents space as 'the product of interrelations [...] constituted through interactions', which is 'always under construction' through contemporaneous social relations and material practices (2005, p. 9). Within this network of social and material processes, places are experienced as temporary 'events' or 'meeting points' occurring as individuals and their environments are 'thrown together' by these processes (ibid, pp. 139–142). Massey's ensuing discussion of the global-local processes that constitute 'place events' extends her earlier concept of 'a progressive sense of place', positing every place to be 'linked to places beyond' (1993) and offering a route beyond the dualism between the 'local' (or spatially immediate) and the 'global' (or spatially distant) in how individuals experience their place in the world.

The co-constitution of 'local' and 'global' spaces underpins political and cultural theory concerned with economic and cultural globalisation, which has led to numerous studies of the ways in which objects, knowledges and identities are globally transported and locally interpreted, in turn potentiating other

interpretations in spatially distant locales (Harvey, 1989, 1993; Robertson, 1995). Children's geographies as a sub-discipline of human geography that calls for a 'more thoroughly spatial understanding of children's lives' (Holloway & Valentine, 2000a, p. 9) and as 'an offshoot and a spatially-focused critique of the 'new social studies of childhood'' (Kraftl, Horton, & Tucker, 2012, p. 8) has made valuable contributions to theorising and empirically exploring the relationship between global and local processes in children's lives (Holloway & Pimlott-Wilson, 2011; Holt & Holloway, 2006). Holloway and Valentine draw on Massey's 'progressive sense of place' to present a way beyond the apparent 'split' identified by the authors of the 'new social studies of childhood' (James et al., 1998) between 'macro studies which can tell us a great deal about the relative social position of different children in different countries, and micro studies which help us understand children's social worlds' (Holloway & Valentine, 2000b, p. 767). Ansell writes in favour of replacing a hierarchically arranged understanding of the spatiality of children's everyday lives as either global or local for a 'flat ontology' that avoids 'transcendental and abstract associations of the global that make it hard to study on the same empirical plane as children's everyday lives' (2009, p. 198). Theoretical work on the multiple spatial scales of everyday childhood has been supported by numerous empirical studies considering children's capacities to move between and negotiate spaces both trans-locally and trans-nationally (see Barker et al., 2009; Bartos, 2013; den Besten, 2010; Murray & Mand, 2013).

Having considered some of the conceptual developments underpinning contemporary studies of how individuals respond to and interact with their environments and with socially constructed notions of environment, I turn now to review studies that have explored and extended these concepts through empirical work carried out with children across spaces and cultural contexts.

2.4: Children's embodied experiences of their environments

In recent years, scholars of childhood have considered children's uses of and affective responses to their environments as a way of understanding both the materiality and spatiality of children's everyday lives, and how spatial

discourses support the social construction of childhood in different contexts. Children's geographers in particular recognise children's use of spaces as structured by multiple factors: gendered and generational norms; parental concerns; the material and spatial affordances of particular spaces; the presence of physical hazards and the material interventions introduced (or not) to minimise risks presented by such hazards (Aitken, 2001; Blazek & Windram-Geddes, 2013; Holloway & Pimlott-Wilson, 2011; Kraftl, 2013; Kraftl et al., 2012). As Kraftl and colleagues observe, 'the construction of spaces can be instrumental in the social construction of childhood [and] the staging and reproduction of discourses which powerfully shape childhood' (2012, p. 8). However, numerous studies show how children's use of spaces forms part of the ongoing (re)construction of these spaces, which proceeds through 'countless interactions between people, objects, technologies, textures, utilities, atmospheres [and] the built, natural and social environments' (ibid, p. 9). Within this large and growing area of work, studies offering insights into children's experiences, understandings and practices of environment are reviewed across this section.

The concept of environmental affordances is a useful starting point in attending to children's embodied and affective experiences of their environments. This concept refers to the relationship between an individual and their environment; that is, what an object or space within the environment 'offers the [individual], what it provides or furnishes either for good or ill' (Gibson, 1979, p. 127). Chawla draws out the relational nature of affordances with the example of a child climbing a tree, writing that 'the affordance is neither in the tree, nor in the child, but in the relationship between them. So it is with all creatures' abilities to take advantage of the resources that the environment holds' (2007, p. 150). The concept of environmental affordances has been used and extended in studies that attend to the intersecting socio-structural factors shaping how children take advantage of the varying natural and constructed qualities of their environments, and to how these affordances might support children's sense of environmental care.

Dyson's (2014) ethnographic study of young people's everyday lives in the Indian Himalayas records how, although young people frequently spoke of their

environment in affective terms, their relationship to it was largely one of practical affordance, enabling and enhancing work and play. Dyson details how ‘the materials of the forest – everything from small pebbles to large trees, from birds’ eggs to water pipes – were constantly being drawn into young people’s games and activities whilst herding’ (2014, p. 87). The games that such materials enabled provided opportunities for fun and also nurtured sociality between young people, which was invaluable for household work necessitating collective completion, such as teenage girls’ leaf collection. Dyson’s rich description of this leaf collection work attends to how the forest setting for this work – a ‘space figuratively and physically remote from the adult domain of the village’ – meant that ‘girls could experiment with identities and engage in forms of play without the imperative to immediately conform to adult expectations’ (ibid, p. 107). In a very different context, Cele’s (2013) multi-method study of teenage girls’ use of an urban park in Sweden also explores the multiple affordances of the park for girls’ emerging political and personal subjectivities. Drawing on the girls’ narratives generated through walks, photographs and individual interviews, Cele considers the park as a site of sociality, as girls spoke of using the space of the park to meet with friends to talk and listen to music, as well as a site of contemplation and solitude. Cele notes how girls spoke of trees in particular as a space for ‘peace and solitude’, for finding new ‘ways of thinking’ and as a legitimate alternative to ‘the social expectations associated with interacting with others in the park’ (2013, p. 83). These studies illuminate the entwined natural and social affordances of children’s environments to support their ongoing construction of identity.

Studies carried out across a range of contexts and with children of different ages illuminate some of the structural factors that constrain or expand the material, social and spatial affordances of children’s environments. Along with Dyson’s study, ethnographic studies by Katz in rural Sudan (2004) and Punch in rural Bolivia (2001; 2007a) provide rich descriptions of the integration of work and play in children’s lives and of the interdependence of objects, spaces, relationships and children’s own gendered and generational identities in supporting these activities. Jones’ study of young children’s unsupervised play in rural England explores how parental understandings of rural areas as ‘safe spaces’ for children offer a ‘cover of innocence’ under which children ‘build their

own worlds and to trace out their own geographies' in relatively unsupervised ways through playful explorations (Jones, 2007, p. 197; see also Matthews & Tucker, 2007; Tyrrell & Harmer, 2015, for discussion of parental notions of safety and rurality in the UK). In contrast, in a study of health and wellbeing in London, Morrow (2000) suggests that young people develop their own communities, dispersed across homes and other private spaces and framed by relationships, in the face of adult hostility to their unsupervised presence in public spaces. Morrow's study is one of a number arguing that children's exclusion from local decision-making inhibits a sense of self-efficacy and propensity to participate in their communities, and contributes to a 'poverty of environment' for children that is also experienced through situated everyday hazards in economically deprived areas (2000, p. 148; see also Bannerjee & Driskell, 2002; Freeman & Tranter, 2011; Katz, 2005; Ridge, 2009; Valentine, 2004; Woolley, 2006).

In spaces where children's access to public space is socially contested, a number of writers have described how some children seek out 'hidden' spaces to play (Bannerjee & Driskell, 2002; Elsley, 2004; Hart, 1979; Percy-Smith, 2002), or group together to openly use public spaces in defiance of adult-led regulations (Matthews & Tucker, 2007; Tyrrell & Harmer, 2015; Vivoni, 2013). Bannerjee and Driskell's research with children in a 'slum' area in Bangalore includes discussion of the 'hideaways' – 'natural spaces that support a wide range of play activities, from active group play to nature exploration and solitary, quiet play' – used by boys in the community, yet notes that these are unlikely to be preserved in the face of ongoing urban development (2002, p. 146). Similar observations are made by Elsley (2004), writing of children's use of 'wild' areas such as woods, ruins and an old slag heap in a community on the edge of Edinburgh. In contrast to these hidden spaces, Vivoni's study of teenagers' skateboarding practices in Chicago considers how a practice often considered as a form of resistance to what teenagers experience as 'punitive spatial regulation' also holds the potential to generate an ethics of environmental care, as skateboarders demonstrate the affordances of otherwise 'defunct' spaces through their embodied practices in these spaces (2013, p. 346).

A number of studies have set out to support children's sense of environmental care and self-understandings as 'agents of change' through creating participatory structures for children to work with others in community improvement and local environmental care (Hart, 1997; Heft & Chawla, 2006; Lolichen et al., 2006; Malone, 2013; Percy-Smith & Burns, 2013). These studies are often constructed on a theoretical foundation informed by ecological psychology of how children's sense of environmental care might be supported by their early explorations of the natural world (Chawla, 2007; Hart, 1997; Heft & Chawla, 2006). Hart, for example, draws on Piaget's observations of young children's interactions with the non-human world to tentatively suggest that children have a 'less differentiated perspective on the human and non-human attributes' of the world which may 'serve as a base for [...] caring for the non-human world' (1997, p. 18). However, Hart notes a tendency amongst researchers to assume a 'special relationship between children and nature' that is 'remarkably little researched' in practice and is largely informed by early childhood studies (ibid, p. 17).

In spite of this caveat, studies that consider children's participation in community-level planning and environmental care offer valuable insights into children's perspectives on situated environmental hazards and their future aspirations for their communities. For example, Bannerjee and Driskell note how contrary to researcher expectations in their study of children's lives in an urban 'slum' in Bangalore, 'not one child asked for a park or play equipment'. Instead, children focused on practical concerns: 'tar the road, install a water tap next to each home, clear the garbage, improve the drainage' (2002, p. 148). Similar findings were generated though child-led research in the Indian state of Karnataka. The research led to a number of policy interventions recommended by the child researchers, including filling potholes, paving roads and building footbridges across waterways (Lolichen et al., 2006, p. 356). Children's potential role as 'key social agents in urban planning' is noted by Malone (2013), who worked with urban developers to consult children between the ages of five and ten on their 'dreams' for a new development within their neighbourhood in Sydney. Hart's (1997) compilation of case studies of children's participation in community environmental initiatives across four continents offers insights that support Malone's assertion, yet echoing the

discussion of initiatives to support children's participation in Section 2.1, cases profiled invariably rely on adult-led support for children's participation (Lansdown, 2010).

Along with situated environmental degradation and adult concerns (or even hostility) relating to children's unsupervised presence in outdoor spaces, a major factor for those who have written on children's diminishing use of outdoor space is the normalisation of technology use in many children's leisure practices, where economic conditions permit (Brooks et al., 2015; Moss, 2012). Whilst scholars recognise the multiple ways in which children's use of technology may support their identity construction and ongoing understandings of the world (Berriman & Thomson, 2014; Sclater & Lally, 2013), there is also recognition of the increasing role that technologies and other material interventions play in mediating children's sensory engagement with the natural world. Here, there is some overlap with critiques of what is seen by some as a tendency in environmental education to teach children about the world through cultural representations of 'environment' such as maps, images and model globes, rather than through 'sensory attunement gained through active interactions' (Ingold, 2000, p. 212; see also Christensen and Prout, 2003; Hart, 1997). The ways in which material objects mediate contact with the natural world is also noted by Sheller and Urry in their work on changing mobilities, where material interventions may 'dematerialise' individuals' connection to their worlds as arrangements of 'humans and non-humans [...] contingently enable people and materials to move and to hold their shape as they move across various regions' (Sheller & Urry, 2006, pp. 221, 215). This work once again calls into question dualistic understandings of nature and culture, and attests to how the natural environment is conditioned through material processes. Whilst, for some children, this may mean that material objects decentre the natural environment as the principal site of affordances through which to learn about the world, it is important to consider this as a situated phenomenon in light of children's uneven access to such objects between and within countries. Studies referenced across this section also testify to the ways in which the outdoor environment continues to play an important role in shaping children's sense of identity and place in the world, and may also support children's sense of environmental care.

2.5: Children's responses to environmental education messages

In an age of global environmental concern, environmental education is a major 'form of knowledge production and legitimation' influencing children's ongoing understandings of the local-global environments of which they are a part (Hursh, Henderson, & Greenwood, 2015, p. 309) and is recognised as a key policy instrument for disseminating environmental knowledge (Chawla & Cushing, 2007; United Nations, 1992; United Nations Children's Fund (UNICEF), 2008; Uzzell, 1999). Accordingly, the UNESCO-led Education for Sustainable Development (ESD) framework supports national governments to 'integrate the principles, values and practices of sustainable development into all aspects of education and learning', most recently through its Decade of Education for Sustainable Development (DESD, 2005-2014; UNESCO, no date).

As a global initiative, ESD is 'couched in universalist rhetoric' (Nikolopoulou et al., 2010, p. xii), yet the content of environmental education necessarily varies across contexts in keeping with situated environmental concerns and understandings (Chawla & Cushing, 2007; Manteaw, 2009; Nikolopoulou et al., 2010). Children's access to environmental education is moreover situated in wider political and economic structures, from national and local governments to school leadership. Thus, whilst competing political priorities may lead to decreasing resources for environmental education in some contexts, as seen in the cutting of UK Government funding for its flagship 'Sustainable Schools' programme in 2010 (see Sustainability and Environmental Education (SEEd), no date), in other contexts environmental education may be promoted in ways that support government agendas. For example, environmental education has been welcomed as part of 'India's cultural and religious ethos of interconnectedness between the natural environment and the human community' (Ravindranath, 2007, p. 192). Meanwhile, activities led by the National Green Corps, a student-led network of eco-clubs tasked with maintenance of outdoor areas in and around public schools, dovetail with the

current government *Swaachh Bharat* (Clean India) campaign (Government of India Ministry of Environment and Forests, no date; Roy, 2014). At the school level, the availability of environmental education initiatives may depend on the resources, time and inclinations of staff and students. Reflecting on research carried out in schools in the UK, Satchwell notes that in many schools, eco-initiatives were spearheaded by individual teachers or support staff (2013, p. 296). The competing pressures on teachers are noted by Hursh and colleagues, who comment that ‘the critical political content of environmental education tends to be muted when it intersects – as it so often does – with the constraining regularities of the prevailing ‘grammar of schooling’ (2015, p. 309).

Despite significant variety in children’s access to educational spaces to critically engage with and construct new environmental knowledge (as envisaged by Uzzell, 1999, in a discussion of the role of environmental education), children are central to the materialisation of environmental education as a policy initiative. As ‘tomorrow’s leaders and stewards of the earth’ (Ballantyne, Connell, & Fien, 1998, p. 285), children’s generational location makes them the main targets of environmental education initiatives, as policy-makers recognise that ‘if practices consistent with sustainable development are to be carried forward through time, then children must be the bridge conveying their value and ways’ (Heft & Chawla, 2006, p. 199). Scholars who highlight children’s potential role as ‘agents’ or ‘catalysts’ of change in their homes and communities draw on educational models of reciprocity and intergenerational learning to present children as active, influential and critical participants in dynamic learning communities (Ballantyne et al., 1998; Percy-Smith & Burns, 2013; Uzzell, 1999; Uzzell et al., 1994). Indeed, there is a substantial volume of policy and practice-based studies considering the value of different educational frameworks for teaching about environment (for examples, see Bonnett, 1999; Chawla & Cushing, 2007; Kudryavtsev, Stedman, & Krasny, 2012; Morgan, 2012; Ravindranath, 2007). Considerably less scholarly work considers children’s own responses to moral and educational messages presenting environment as an object of concern, or children’s experiences of carrying such messages into the spaces of their everyday lives.

One exception is Byrne and colleagues' exploration of how 9-10-year-olds in Sweden and England negotiate climate change as a 'complex environmental socio-scientific issue within the context of their own lives and in relation to society at large' (Byrne et al., 2014, p. 1491). Researchers carried out focus groups in the two countries and asked children to discuss and agree upon a number of suggestions for national government action on carbon emissions, each with implications for common individual and household activities, such as car use, overseas travel and buying imported foods. Using a discourse analytic approach, the researchers set out to identify the 'interpretative repertoires' (Potter & Wetherell, 1987) used by children to make sense of their own everyday practices in relation to hegemonic scientific discourses causally linking particular practices to 'climate change'. Their study considers how different groups of children 'negotiated what they considered to be a normal lifestyle whilst trying to remain responsible citizens', through deploying repertoires of everyday life, science and technology, environment, self-interest, society and justice in ways that drew on 'familiar societal arguments and discourses' (Byrne et al., 2014, pp. 1496, 1503). As well as illuminating the situated practices and lifestyles that children considered to be 'normal' and 'non-negotiable' (what Shove, 2003, has termed 'the social organisation of normality'), the study offers valuable insights into children's capacities to work with a variety of knowledges to construct and sustain arguments for the continuation or amendment of such practices, co-constructing new suggestions and knowledges in the process.

In contrast to the pro-active suggestions to mitigate environmental problems proposed by children in Byrne and colleagues' study, a study by Threadgold with older teenagers in Australia shows how teenagers used discursive techniques of minimising or distancing oneself from the apparent risk posed by environmental problems as a way of maintaining a 'quest for order' in the face of potentially catastrophic environmental problems (Threadgold, 2011, p. 26). Threadgold notes a contrast between young people's 'sense that future large-scale catastrophes are a virtual certainty' and the positive trajectories they imagined for their own futures (ibid, p.22). He concludes that young people may build dualistic or 'two-track' thinking into their talk of environmental problems as a coping strategy to manage a sense of dissonance between their hopes for the future and their understandings of the gravity of environmental problems (ibid,

p. 26). In common with studies carried out with adults, briefly reviewed in Chapter One (for example, Lorenzoni et al., 2007; Stoll-Kleemann et al., 2001), Threadgold also notes how the teenagers alluded to the inaction of governments and business as a disincentive for individual actions, and considers this as a further way of managing dissonance (2011, p. 23).

Although carried out with different age groups in a range of national contexts, the above studies share common ground in the ways in which they highlight children and young people's capacities to interpret and construct new forms of knowledge as they make sense of their own lives in relation to situated environmental messages raised in research activities. Focus group-based studies by Hayward (2012) in New Zealand and Wilson and Snell (2010) in England offer further examples of how children worked with a range of environmental messages to elaborate their own understandings of the relevance of particular environmental concerns to their everyday lives in the present and future. As well as highlighting children's interpretive capacities, taken together these studies serve as valuable examples of how looking across contexts can counter understandings of the 'universal' application of hegemonic environmental messages by showing the situated ways that children respond to and construct their own environmental knowledge.

2.6: Children and families' negotiations of environmental knowledge

It is valuable also to consider studies attending to children's experiences of carrying the messages of school-based environmental education into other spaces of everyday life, as much environmental education policy rests on the assumption that this will lead to changed behaviour in children's homes and communities (see, for example, reports already discussed by United Nations, 1992; UNICEF, 2008; UNESCO, 1997). In this process, children become the 'embodied power' necessary to 'multiply the impact of school environmental education programmes beyond the boundaries of the classroom' as their knowledge of some contemporary environmental issues may surpass that of their parents (Ballantyne et al., 1998, p. 286; see Foucault, 1982; 1994 on

embodied power). Scholars have set out to explore the influence that children's environmental knowledge and 'pester power' might have on domestic practices (Montgomery, 2009, quoted in Satchwell, 2013, p. 298).

Some scholars have attempted to quantify the effect of educational interventions on household practices through survey-based experimental research carried out between schools and homes. Hiramatsu and colleagues (2014) conducted classes in schools in Japan about the environmental benefits of reducing domestic energy use, and gave children energy monitors to use at home. The researchers surveyed parents' and children's energy use before, during and after the period of teaching, and identified a short-term 'spillover effect' between changes in children's energy use and parents' own energy-saving behaviours. Vaughan and colleagues (2003) surveyed children, parents and other community members before and after a month-long nature conservation programme for primary school-aged children in Costa Rica and found reported increases in conservation awareness and attempts to incorporate this awareness into everyday practices amongst all groups. These and other studies show the situated potential for educational interventions to lead to 'pro-environmental' practices and illuminate the important role played by children as conduits of environmental knowledge in this process. However, studies that rely on short-term experimental measures to assess this potential (and which frequently conclude with positive findings) are limited in the extent to which they can adequately consider the complexities involved in children's (or other family members') more long-term attempts to enact environmental knowledge in homes where everyday practices and household dynamics are structured around normalised paradigms of behaviour, existing understandings of environmental concerns and generational relations where children's negotiating power is frequently less than that of their parents (Alanen, 2009; Mayall, 2002, 2009; Punch, 2007a).

Other studies illuminate broader contextual factors influencing the conditions in which environmental education messages brought into homes and community spaces by children might lead to changed practices. In a cross-European study carried out by Uzzell and colleagues (1994) researchers set out to consider how children might act as 'catalysts of environmental change' in their homes, testing

a common proposition underpinning environmental education as a policy intervention. In addition to varying political structures across countries included in the study, the researchers found significant variety in household-level attitudes and understandings shaping children's 'opportunit[ies] to act in a catalytic role' (Uzzell, 1999, p. 407). Reflecting on research carried out in the UK for the study, Uzzell summarises some of the household-level factors which he argues promote or inhibit a 'catalytic effect': 'the extent to which individual parents acknowledge their children as 'experts', the willingness of parents to enter into a dialogue with children and the level of pre-existing concern and knowledge parents had about environmental problems' (ibid, p. 408). Whilst in many homes, parents appeared receptive to children's messages, Uzzell notes that in other homes parent-child relations were structured around a 'traditional model of influence where the parent adopts the role of expert and the child has minority status' (ibid, p. 408).

A study carried out with families with 10-11-year-old children in Belgium also considers a number of contextual factors influencing children's agency to negotiate household energy practices, and locates children 'at the crossroads of multiple and possibly contradictory influences' through the environmental messages they receive from school, media, family members and friends (Bartiaux, 2009, p. 1899). Bartiaux suggests that parents were influenced by the provenance of the message relayed to them by children, and their associated understandings of particular spaces or media as 'trustworthy' sources of knowledge, with some parents resisting what they saw as an external agent's attempts to 'utilise [children] to attempt to make the parents feel guilty' (ibid, p. 1904). As also noted by Uzzell, Bartiaux concludes that family members' pre-existing environmental awareness and coordination of practices in response to this awareness greatly affects how they might respond to 'new' messages brought into the home by children. Similar findings relating to children's influence on household energy saving in particular were found by Fell and Chiu (2014) in research carried out between schools and homes in London.

Focus group-based studies carried out in schools also highlight how children's own understandings of the possible responses available to them to act on environmental concerns in their everyday lives were often refracted through

their understandings of what their parents were doing, or could do, in response to these. In the study reviewed above, Byrne and colleagues note how children drew on their parents' everyday practices in their discussions of 'normal' and 'non-negotiable' practices in ways that 'probably reflected a way of talking at home' (Byrne et al., 2014, p. 1501). Children's 'sophisticated understanding of [household] power and roles' to implement 'pro-environmental' changes at home is noted by Percy-Smith and Burns, reflecting on a participatory study carried out with primary and secondary school-aged children in England, where children designed and implemented small-scale initiatives based on their own understandings of 'sustainable development' (2013, p. 333). The authors write that 'children recognised that they needed to use less energy [...] [and] thought that what was needed was for them to educate their parents, which would enable their parents to enforce the behaviours that [children] thought were needed but which they did not have the self-discipline to apply' (ibid, p. 333). This observation indicates children's conformity to traditional generational ordering, where it is parents, rather than children, who 'enforce' behaviours in the home.

Insights from these studies suggest that there is a need for greater attention to the generational ordering of households in considering possibilities for 'pro-environmental' changes to domestic practices. However, despite powerful policy messages relating children's role as 'agents of change' in homes, there has so far been relatively little theoretical or policy attention to how the generational ordering of household spaces might influence the dynamics of such a collaboration.

The above studies also show how children and families' attempts to change practices in response to environmental messages (as is frequently imagined in environmental policy) may be made difficult by the multiple influences and forms of knowledge they may come into contact with. This was also seen in Satchwell's (2013) innovative study of children's 'carbon literacy practices', which set out to explore children's responses to 'texts about climate change' encountered in different (on and offline) spaces. Satchwell carried out research between schools and students' homes and encouraged children to 'tweet' environmental messages they encountered online using mobile phones

distributed for the the research. By working across spaces, Satchwell's study shows how the components of different spaces may facilitate or inhibit children's enactment of environmental knowledge. Satchwell observes that some 'pro-environmental' practices were confined to or associated with particular spaces in how children spoke of and enacted these practices, for example, composting in gardening projects at school or using renewable energy at home. Satchwell's work suggests that the different 'configurations of elements' in particular spaces might account for the way in which such practices did not always travel with children across spaces. In findings that resonate with the work of Shove and colleagues (2012) and Spaargaren (2011), Satchwell argues that 'institutional factors such as the availability of facilities and the norms of behaviour – at school, at home, and in the community – are critical in the analysis of practices, as well as in any attempts to reconfigure – to increase or improve – them' (2013, p. 298).

The studies reviewed above indicate some areas of commonality in the factors that might support or constrain children's attempts to mobilise environmental knowledge in the spaces of their everyday lives. Examples of this are existing environmental understandings of household members, intergenerational relations and the ways in which particular spaces may be configured (or not) to support sustainable practices. These identified areas of commonality open up a number of possible research paths that might be explored in considering how environmental education might more effectively support children and others to act in pro-environmental ways.

2.7: Summary of literature reviewed and areas for further research

Whilst some avenues of research into children and their everyday environments have been extensively explored, literature reviewed across this chapter illustrates that there is a paucity of research into how children respond to theoretical environmental messages and into their experiences of mobilising these messages in the spaces of their everyday lives. This area is particularly under-explored in majority world contexts. A review of environmental policies at

both global and local scales nonetheless shows how children are increasingly being called upon across contexts to enact situated environmental knowledge, whether through maintaining school spaces, reducing energy use or designing more 'sustainable' school or community infrastructure. There is therefore a need for greater attention to be paid to children's experiences of receiving and enacting these messages, and to the situated socio-structural factors that might complicate this, including children's generational positioning.

The review of studies presented above shows some dialogue between studies into children's embodied experiences of their environments and their responses to socially constructed messages of 'the' environment, notably amongst scholars who have set out to consider how children's affective responses to the natural environment and their often under-recognised capacities for agentic action might be mobilised into 'pro-environmental' initiatives (Chawla, 2007; Hart, 1997; Malone, 2013). However, this dialogue is limited, particularly in studies carried out in majority world contexts, and often does not consider how children's differing responses to environmental messages relating to long-term, 'global' concerns might be shaped by local-global inequities in children's exposures to environmental hazards, the material interventions protecting children from these hazards and the more positive affordances of the natural environments that are accessible to children. Moreover, across contexts, there is often limited consideration of how children's generational and other structural positioning might affect their capacities to enact environmental knowledge, and in particular might shape their agency and negotiating power across spaces.

This study responds to these recognised gaps in knowledge by building on existing work on children's agency and their experiences of their everyday environments, and by bringing these interests together with attention to children's situated responses to environmental concerns and messages. The next chapter presents the methodology and methods employed to carry out this study.

Chapter Three: Methodology and methods

This study employs a narrative, multi-method and cross-national methodology to explore children's everyday environments, their capacities to interpret and co-construct 'situated knowledges' of environment and their agency in responding to 'pro-environmental' messages. The study incorporates the following methodological aims, introduced in Chapter One:

- To elucidate the potential of a narrative approach to explore children's agency, drawing on a range of research materials to analyse children's situated responses to the environmental knowledge with which they come into contact in everyday life.
- To use multiple qualitative methods to generate insights into the multi-sensory processes through which children come to know and value their environments.
- To consider commonalities and differences in children's situated environmental experiences and understandings through constructing a cross-national sample that incorporates various forms of structural difference and includes data generated for another research study.

The study has proceeded through an interpretivist theoretical framework that considers that knowledge is co-constructed in ongoing ways as individuals interpret and construct meanings from their interactions with one another, with material objects and spaces and with existing socially-constructed knowledge (Crotty, 1998). Although some theorists of methodology have attempted to separate out epistemology and ontology sequentially in the development of research design (for example Grix, 2010), a key tenet of my interpretivist theoretical framework is the understanding that ontology and epistemology are so closely entwined that '[the world] becomes a world of meaning only when meaning-making beings make sense of it' (Crotty, 1998, p. 10).

I begin this chapter by discussing this theoretical framework and how through it I set out to meet the methodological aims presented above. The remaining sections of this chapter describe how I operationalised these aims, first in

secondary analytic work carried out with data from the *Young Lives* (YL) research study and secondly in new data collection for my research and the *Family Lives and the Environment* (FLE) research study as a whole.

3.1: Theoretical foundations of the study

A narrative approach

A narrative approach to social research, which pays close attention to how knowledge is constructed between speakers through the telling of stories in particular socio-cultural and interpersonal contexts, is consistent with the interpretivist theoretical framework underpinning this study. The study takes a case-based narrative approach to generating and analysing data, with the aim to explore children's agency through close attention to the situated ways that children interpret and co-construct knowledge in dialogue with those around them. Narrative scholars Squire, Andrews and Tamboukou, whilst cautioning against too rigid a definition of narratives, identify an understanding of narratives shared by many scholars as 'ordered representations' of events and experiences; 'sequences with a specific order, temporal or otherwise, which takes [them] beyond description; and by a particularity that takes [them] beyond theory' (2013, p. 13). As Riessman notes, the aim to preserve the integrity and particularity of participants' narratives in case-based narrative research enables researchers to attend to how participants exercise agency in their attempts to present themselves in consistent ways across research activities (2011, p. 311, see also Phoenix, 2013). Using a case-based narrative approach in tandem with thematic analysis in this study has also enabled me to situate children's narratives in the wider thematic content of data generated across the sample.

Narrative research has traditionally been associated with 'talk-based' methodologies, yet theoretical and methodological developments in narrative research mean that researchers are applying a narrative lens to an increasingly varied range of data. The adaptability of narrative analysis may be facilitated by the 'historically-produced theoretical bricolage' that Squire and colleagues argue characterises narrative research (2013, p. 5). Divergent understandings

of 'subjectivity, language, the social and narrative itself' in the linguistic 'turns' that the authors trace in their history of narrative research account for what the authors write of as 'lived-with contradictions in narrative research' (ibid, p. 5; p. 8). Such divergences have led to a plurality of ways of exploring the construction of narratives in research contexts, as well as in everyday conversation and in the artefacts of everyday life (Bell & Bell, 2012; Bell, 2013; Ochs & Capps, 2001; Riessman, 2008).

Some narrative scholars have highlighted how speakers construct narratives through drawing on popular and literary genres, character types and conventions that they believe to be universally understood in the contexts in which they speak (Bruner, 1987; Phoenix, 2013; Polletta, 1998). Thus, attending to speakers' narratives is argued to not only offer insights into individuals' lives, but also into how the identities they construct for themselves are situated in wider cultural meanings and repertoires, what Bruner (1990) has termed 'canonical narratives'. Narratives are also shaped by the immediate contexts in which they are told, as 'events perceived as important are selected, organised, connected, and evaluated as meaningful [by a narrator] for a particular audience' (Riessman, 2008, p. 3). Some of the implications of what scholars term narrative co-construction for reading research encounters have been explored by Phoenix who, leading from analysis of a research encounter informed by theories of positionality (Davies & Harré, 1990), argues that speakers 'position themselves in specific ways [in research encounters], which include anticipation of what they assume the interviewer wants to hear or will approve' (Phoenix, 2013, p. 82). Accordingly, approaches to analysis that centre on the co-construction of meanings call for reflexivity from researchers (ibid, see also Andrews, 2013; Josselson, 2004; Riessman, 2005, 2008, 2015). This is especially relevant to thinking about cross-national research, where researchers and participants may approach particular topics with different perspectives informed by the contexts with which they are familiar.

As part of the attention to the social aspects of narrative construction, scholars have written of the insights that attending to individuals' narratives might have for understanding their agency to produce 'microsocial and micropolitical effects' in the immediate spaces in which they speak (Squire et al., 2013, p. 13).

Brockmeier proposes the 'narrative imagination', or 'the human ability to create meaning in a variety of cultural contexts', as 'a form and practice of human agency', because of its 'advanced mode of communicating, negotiating and [...] creating novel meanings' (2009, pp. 214, 227; see also Andrews, 2014). The agency involved in constructing narratives is also elucidated by Phoenix, who argues that speakers exercise 'agentic choice' in how they engage with established socio-cultural meanings in constructing narratives (2013, p. 82). Phoenix's argument is influenced by the approach to interpreting individuals' discursive practices elaborated by Davies and Harré:

An individual emerges through the processes of social interaction, not as a relatively fixed end product but as one who is constituted and reconstituted through the various discursive practices in which they participate. Accordingly, who one is [is] always an open question with a shifting answer depending upon the positions made available within one's own and others' discursive practices and within those practices, the stories through which we make sense of our own and others' lives.

(Davies and Harré, 1990, p. 45)

There is resonance between this approach and how Bamberg (2006) describes a 'small story' approach to analysing narratives, where the focus is on narratives as relatively short and sometimes fleeting stories that individuals embed in their spoken interactions. Bamberg argues that a 'small story' approach enables close attention to the relationship between speakers, viewing speakers' narrative descriptions and evaluations as 'rhetorical functions' conveying 'how speakers signal to their audience how they want to be understood' (ibid, p. 145). In contrast to a 'big story' or 'life story' approach to narrative, which often results in long, reflective extracts of transcribed text (see Squire et al., 2013, pp. 8-9), attending to 'small stories' has been theorised by Georgakopoulou as allowing attention to the 'under-represented narrative activities' in which individuals engage in everyday communication (2006, p. 123; see also De Fina & Georgakopoulou, 2012). This study takes a predominantly 'small story' approach to analysing the 'narrative activities' of speakers, yet is concerned with how speakers embed, respond to and resist 'canonical narratives' in the construction of these 'small stories'.

Due to its historical emergence from the 'linguistic turn(s)' in social science and the volume of narrative studies that attend to participants' life stories (as discussed by Squire et al., 2013), narrative research has the reputation of being primarily useful with life-story approaches to generating and analysing data, which may not be the best fit for research into children's everyday lives. Indeed, as further discussed below, attempts to make research methods more 'child-friendly' in recent years mean that many researchers working with children have turned away from interview-based methods or have sought to combine these with 'task-based' methods. This may account for the use of narrative approaches with children as a somewhat under-explored area.

Amongst ongoing developments in narrative research, two in particular challenge the idea that narrative may not fit with multi-sensory or dialogic research methods. First is the growing interest in 'small stories' in narrative research, as discussed above. Writing about narrative research with children, Luttrell writes that a 'small story' approach may be particularly useful as 'narratives [generated with children and youth] can be offered in bits and pieces and without the same sense of 'coherence' often associated with adult speakers' (2010, p. 225). Scholarly attention to 'small stories' widens the materials that might be considered as useful for narrative analysis and links to the second development of relevance, namely scholars' use of narrative approaches to analyse data or artefacts generated through multi-sensory processes, sometimes with groups of participants (see discussions by Bell, 2013; Riessman, 2008; Squire et al., 2013). Amongst examples of work in this area, a number of studies have used a narrative approach to study everyday family life, recognising the value of such an approach to elucidate negotiations of family practices and the culturally and socially-located ways that these change over time (Groves et al., 2015; Phoenix, 2011; Phoenix & Brannen, 2014). Scholars have also used narrative in collaboration with visual methods in studies with children to attend to how artefacts, technologies and spaces support children's everyday practices and ongoing identity construction (Cele, 2013; Croghan et al., 2008; Luttrell, 2010).

These studies highlight the potential for narrative approaches to attend to the multiple material and social phenomena through which children make sense of

their everyday environments and interpret socially-constructed knowledge about environment. Furthermore, a case-based narrative approach allows researchers to explore how participants use research activities to construct and maintain particular identity positions, and is one way that the integrity and particularity of participants' narratives might be preserved in analysing the various research materials generated with them (Riessman, 2011, p. 311). This attention to particularity is valuable in this study, as I seek to learn from contextual variety in exploring children's narratives of environment and everyday life generated across a range of contexts.

Multi-method research

This study uses multiple qualitative methods to generate insights into the various processes through which children come to know and value their environments. This multi-method approach aims to bring together exploration of children's responses to socially constructed knowledge about environment with attention to how children experience their environments in embodied and affective ways.

This approach is influenced by theoretical work in childhood studies that has sought to overcome ontological and epistemological dualisms between nature and culture by arguing that children are 'hybrid beings', whose biological and social capacities combine in how they interact with the world around them (Kraftl, 2013; Prout, 2005; Ryan, 2011). Prout argues that interest in social constructionism as the principal conceptual framework of the 'new social studies of childhood' reinforced a dualistic understanding of nature and culture by attempting to 'separate out what is 'social' from what is 'biological' in order to create the terrain on which social analysis can take place' (ibid, pp. 54-55, see also Alanen, 2015). Informed by theories of socio-technological hybridity (Callon & Latour, 1981; Haraway, 1991; Latour, 2005), Prout proposes a theory of 'hybrid childhoods' to move beyond this dualism. This area of work has grown through ongoing scholarly attention to the 'more-than-social' aspects of childhood and children's agency in 'self-evidently more-than-human, more-than-textual, multisensual worlds' (Lorimer, 2005, p. 83; see also Kraftl, 2013; Oswell, 2013).

The influence of this theoretical work can be seen on methodological developments in childhood studies, particularly in children's geographies, where there has been significant theoretical interest in methods that attend to children's embodied, emotional and affective – sometimes referred to as 'more-than-social' – experiences in and of their environments (Anderson & Jones, 2009; Ansell & van Blerk, 2007; Bartos, 2013; Cele, 2013; den Besten, 2010; Kraftl, 2013; Murray & Mand, 2013; Spinney, 2015). Ethical arguments also support researchers' use of multi-method approaches, particularly approaches which, through engaging participants in the co-creation of research materials, make explicit children's position as 'subjects, rather than objects of enquiry' (Christensen & James, 2008b, p. 1; for examples, see Clark, 2004; Luttrell, 2010; Punch, 2002a; Änggård, 2015). Such multi-method approaches take seriously children's social and discursive capacities whilst recognising that children, like all individuals, communicate and respond to their environments in multi-sensory ways (Kraftl, 2013; Lee, 2001a; Prout, 2005).

Multi-method approaches are moreover responsive to the imbalance in age, life experience, and educational trajectories of children and adult researchers, all of which may account for differences in how they communicate in research activities (Alderson & Morrow, 2011; Christensen & James, 2008b; Mayall, 2008; Punch, 2002b). Whilst scholarly arguments for the recognition of children's capacities support the contention that 'there is nothing particular [...] to children that makes the use of any [research] technique imperative' (Christensen & James, 2008b, p. 2), the power differentials that characterise adult-child relationships across contexts mean there are a number of reasons why research with children is potentially different from research with adults (Punch, 2002b). These differentials are further discussed in presenting ethical considerations below.

Outside of childhood studies, growing theoretical and policy interest in everyday life has supported the development of mobile, multi-sensory and technologically innovative methodologies to explore individuals' everyday practices (Lorimer, 2005; Neal & Murji, 2015; Phoenix, 2011; Pink, 2012; Shirani et al., 2015). Pink writes that researcher attempts to move with participants between the spaces of

their everyday lives, using different methods to prompt reflections on practices, make it possible 'to comprehend the flow of everyday life and the production and meaning making or representations of everyday life as part of the same process' (2012, p. 34). Pink's work is instructive in overcoming the separation between 'representational' and 'non-representational' ways of knowing, conceptualised by cultural geographers as 'non-representational theory' (Lorimer, 2005; Thrift, 2008). Non-representational theory is premised on the idea that 'some phenomena – such as sensory and affective experience – 'overflow' our ability to apprehend or represent them through language' (Spinney, 2015, p. 232). However, multi-method studies cited across this section show the potential for integrative approaches that illuminate the complementarity of discursive and embodied ways of knowing. Furthermore, as Hyden has argued, the act of narrating is an integrative task, drawing on the body as a 'communicative resource' comprising biological capacities to produce sounds and semiotic capacities to inscribe meanings (2013, p. 130).

The multi-method approach to generating and analysing data taken in this study aims to extend understandings of children's embodied interactions in and with their environments, whilst building on studies of how children learn about and respond to global environmental concerns, which have mainly taken place in schools through focus group discussions (for example, Byrne et al., 2014; Hayward, 2012; Threadgold, 2011; Wilson & Snell, 2010). Following on from theoretical work outlined above and influenced by Satchwell's innovative study of children's carbon literacy practices across spaces (2013), the study explores the spaces of children's everyday lives as 'the intersections where meanings and changes are made' (Pink, 2012, p. 34) and aims to trace flows of environmental knowledge by working in and between children's schools, homes and local areas. By incorporating collaborative research activities with children, family members and school peers, the study design also allows for insights into how everyday practices are negotiated between family members, building on existing work that considers multiple perspectives in family research (Harden et al., 2010; MacLean & Harden, 2012; McCarthy, Holland, & Gillies, 2003; Phoenix & Brannen, 2014).

Learning from contextual variety

Amidst rhetoric about the ‘common future’ shared by planetary residents, the complex socio-economic inequities underpinning life on the planet mean there are vast differences in how children (and others) in households between and within national contexts are exposed to environmental hazards, and in how they understand and value ‘environment’ (Ananthapadmanabhan et al., 2007; Manteaw, 2009; Roberts & Parks, 2006). However, global environmental policy frameworks are often informed by minority world perspectives on environment that are considered to be universally understood (Martello & Jasanoff, 2004; Peet, Robbins & Watts, 2011; Shiva, 1993). There is therefore a need to consider children’s everyday lives and environments from a range of situated perspectives.

The aim to learn from contextual variety in this study is also informed by calls in childhood studies (discussed in Chapter Two) for more cross-national work to progress theoretical understandings of children’s agency through attending to commonalities and differences in how children across contexts negotiate everyday interactions as generationally positioned actors (James, 2010; Mayall, 2012; Punch & Tisdall, 2012; Qvortrup, 2009). Punch and Tisdall note that scholarship that not only brings together perspectives from different contexts but considers potential areas for dialogue between these contexts is limited (ibid, p. 243; the authors note work by Chawla, 2002; Jeffery & Dyson, 2008; Katz, 2004; Panelli et al., 2007). This study aims to respond to the identified need for more dialogic cross-national work with children and families, by purposively working with a multiply-varied sample of children to generate new data for this study.

A second component of the aim to learn from contextual variety through constructing a varied sample for analysis in this study involves carrying out secondary analysis on a selection of qualitative data generated for the *Young Lives* longitudinal study of childhood poverty in Andhra Pradesh. The term ‘secondary analysis’ covers a range of research practices ‘with variation in the extent to which the (re)analysis is ‘secondary’ and, relatedly, the extent of researchers’ distance from the original information’ (Morrow, Boddy, & Lamb,

2014, p. 7; leading from Coltart, Henwood, & Shirani, 2013). However, a basic definition is analytic work on ‘data that originally were collected for another study with a different purpose’ (Heaton, 2004, p. 8). Researchers who have carried out secondary qualitative analysis draw attention to the risk of misinterpreting data through insufficient attention to context and what Heaton terms ‘the problem of not having been there’ (2004, p. 60; see Coltart et al., 2013; Fosshem, 2013; Morrow et al., 2014 for discussions of this). One way of minimising this risk – and the approach taken in this study – is to work in partnership with members of the original research teams, sharing secondary analyses and learning from researchers’ perspectives on these. The multiple ways in which this partnership benefitted this phase of work and helped me to prepare for the new data generation are detailed in Section 3.3.

In seeking to learn from contextual variety in both phases of work, the study has been influenced by feminist theories of situated knowledges, or how the situated and partial nature of knowing that characterises the human condition makes it possible to learn from others’ experiences (Haraway, 1991; Massey, 2005; Mauthner & Doucet, 2002; Stoetzler & Yuval-Davis, 2002). This is contained in Haraway’s description of the knowing and partial self:

‘The knowing self is partial in all its guises, never finished, whole, simply there and original; it is always constructed and stitched together imperfectly, and *therefore* able to join with another, to see together without claiming to be another.’

(Haraway, 1991, p. 193; author’s italics)

Haraway describes situated knowledges as ‘the view from a body, always a complex, contradictory, structuring and structured body’ (1991, p. 195). For Haraway, attention to one’s own situated and partial perspective – or ‘view from somewhere’ – is central to what it means to ‘know responsibly’ in research, without assuming the ‘god-trick [of] infinite vision’ (ibid, p. 189). Leading from Haraway’s work, feminist researchers argue that ‘knowing responsibly’ calls for ‘a high degree of reflexivity and awareness about the epistemological, theoretical and ontological conceptions of subjects and subjectivities that bear

on our research practices and analytic processes' (Mauthner & Doucet, 2003, p. 424; see also Mauthner & Doucet, 2002).

'Knowing responsibly' through attending to one's situated perspective is of course not only relevant to cross-national research. Nonetheless, the cross-national methodology supporting the aim to learn from contextual variety in this study is conducive to 'knowing responsibly' by embedding possibilities to learn from a variety of perspectives into its design. The decision to start analytic work in this study with data generated for *Young Lives* in the less familiar (to me) of the two national research contexts in this study fits with the methodological aim to learn from contextual variety to inform the generation and analysis of new data.

3.2: A linked PhD study

This doctoral study was designed as a linked study to *Family Lives and the Environment* (FLE), and has developed and proceeded through close collaboration with FLE. The overarching aims of FLE are to improve understandings of the negotiated complexity of families' lives in relationship with their environments, and to illuminate meanings of 'environment' in everyday family lives and practices in varied contexts in India and England (Boddy, 2013; Shukla et al., 2014). These aims complement the focus of this study, and the shared methodology developed with FLE, detailed across this chapter, has intrinsically shaped the possibilities for knowledge generation in this study.

Through its links to FLE, this study is also part of the cross-institutional research node *Narratives of Varied Everyday Life and Linked Approaches* (NOVELLA), which comprises a number of research studies, including FLE. The studies making up NOVELLA share methodological and theoretical aims to 'develop and showcase methods and approaches that capture the complexity of the everyday [and] move forward the analysis of everyday experiences in families through a mixed-methods approach that combines narrative methods with a

range of other approaches' (Phoenix, 2011).⁵ Ann Phoenix, the principal investigator on NOVELLA and a co-investigator on FLE, and Janet Boddy, the principal investigator on FLE, have jointly supervised this doctoral study.

In the first phase of this study the FLE team and I worked with the *Young Lives* (YL) longitudinal study of childhood poverty to carry out secondary analysis of qualitative data generated for YL in Andhra Pradesh.⁶ This research collaboration was built on existing research relationships and enabled FLE researchers to access a sample of YL qualitative data, which are not publicly archived (for further discussion, see Morrow, Boddy & Lamb, 2014). This phase of work involved collaboration with Gina Crivello, Virginia Morrow and Emma Wilson, all members of the YL qualitative research team based at the University of Oxford, and Uma Vennam, the lead qualitative researcher for YL in Andhra Pradesh. This phase of work served as invaluable preparation for the new data generation that comprised the second phase of this study.

The decision that new data generation should proceed through collaboration with local researchers in Andhra Pradesh was foundational to the research design for this study and FLE and was anticipated to mitigate the cultural and linguistic distance between non-native researchers (including myself) and research participants. Linguistic barriers are often cited as the primary reason for which non-native researchers might work with local researchers; however, the research design for this study led from the understanding that local researchers also carry out essential work as intercultural mediators (see discussions by Brännlund, Kovacic, & Lounasmaa, 2013; Dyson, 2014; Riessman, 2005). For this reason, Madhavi Latha, a researcher based in Hyderabad who was involved in all rounds of data collection for YL, translated and co-facilitated – along with Natasha Shukla and I – all research activities in Andhra Pradesh, and Uma Vennam was involved throughout the FLE study in an advisory role.

⁵ NOVELLA was hosted by the Institute of Education, University of London and funded by the ESRC National Centre for Research Methods (NCRM) from 2011 to 2014 (ESRC number RES-576-25-0053). See Appendix One and www.novella.ac.uk.

⁶ *Young Lives* is hosted by the University of Oxford and core-funded by the UK Department for International Development (DFID) from 2001-2017, Irish Aid from 2014-15 and the Netherlands Ministry of Foreign Affairs from 2010-2014. See Appendix One and www.younglives.org.uk.

3.3: Secondary analysis of *Young Lives* data

Young Lives (YL) is a longitudinal, mixed-methods study of children's experiences of poverty in four countries (Ethiopia, India, Peru and Vietnam), carried out over a fifteen year period (2002-2017). Leading from the Millennium Development Goals (MDGs) policy agenda, YL aims 'to improve understandings of the causes and consequences of childhood poverty and the role of policies in improving children's life chances' (Morrow & Crivello, 2015, p. 270). The study was designed as a quantitative cohort study tracking the progress of 2,000 children born in 2000-1 and 1,000 children born in 1994-5 in each of the four countries. A qualitative research component, comprising individual interviews and group activities with children, caregivers and community members, was subsequently introduced and has proceeded over four research rounds between 2007 and 2014. In India, qualitative research has been carried out with a sub-sample of 48 children of both age cohorts across four sites in Andhra Pradesh and Telangana, including one site within the state capital of Hyderabad and three rural sites.⁷ Research activities are 'premised on the notion that children are social actors in their own right, capable of providing essential information about the way in which poverty impacts upon their lives and well-being' (Galab et al., 2011, pp. 23-24).

I had two main aims in this phase of work:

- To gain contextual understandings of everyday life and the situated environmental concerns that feature in children's lives in rural and urban Andhra Pradesh.
- To explore the potential for substantive and methodological learning from a linked narrative and thematic analysis of data not generated with narrative analysis in mind.

⁷ In June 2013, the former state of Andhra Pradesh formally bifurcated into two states, Andhra Pradesh and Telangana (Hyderabad is the joint capital of these states). *Young Lives* research activities have subsequently been carried out across the two states, as research sites in this longitudinal study predate the bifurcation. Across this study I refer to Andhra Pradesh as one state, reflecting its official unity at the time of the new data generation and the generation of *Young Lives* data included in the secondary analysis for this study.

Significant overlaps between YL and this study were envisaged to support the analytic possibilities of this work, not least that the data were generated with children in the less familiar (to me) of the two national contexts where I planned to carry out new data generation and with children (in the YL older cohort) who were similarly aged to those with whom I planned to work. Overlaps in theoretical approaches to generating data with children in YL and my study were envisaged to support methodological learning from this work (see Crivello, Camfield, & Woodhead, 2008 for the use of child-focused research approaches and their ontological underpinnings in YL).

The potential for learning through secondary analysis envisaged for this study and for FLE was also founded on recognised differences between the studies – notably that YL data were not generated with narrative analysis in mind or with ‘the environment’ as a primary substantive interest. This called for regular meetings between the research teams across the course of the collaboration, which centred on the ethical, methodological and theoretical implications of the secondary analysis. The aim to explore what could be learned through applying a narrative analytic lens to YL data, both for new readings of these data and for extending understandings of the potential of narrative analytic methods, was agreed between NOVELLA and YL researchers at the stage of designing the NOVELLA node, and predated my appointment to carry out this doctoral study. Nonetheless, the analytic work carried out for this study fits within the wider programme of work agreed between the two projects.

Generating a sub-sample for secondary analysis

Through discussion with YL researchers, it was agreed that the FLE team would select eight cases for secondary analysis from data generated over three rounds of qualitative data collection with the older cohort of 24 children and their caregivers (carried out in 2007, 2008 and 2010). The children were aged between eleven and fifteen over the rounds of research. The decision to sample only eight cases led from recognition of the time entailed in narrative analysis (Riessman, 2011; Squire, 2013). I worked with other FLE researchers to devise a sampling strategy leading from our respective research aims. This sampling strategy aimed for structural variety in gender, geographical area and levels of

relative poverty, and sought to select cases for their relationship to three related areas of theoretical interest:

- The entwinement of environment and daily lives
- Disruptions which impact on practices in relation to environment
- Environmental awareness or environmental discourses

Natasha Shukla (a member of the FLE team) and I read through and conducted surface-level analysis of interviews carried out with all 24 older cohort children at the third round of qualitative research. We selected eight cases on the basis of their potential to speak to the areas of theoretical interest outlined above. The resulting sub-sample included a boy and girl from each of the four qualitative research sites and incorporated variety in household socio-economic status, and in rural and urban families.⁸ Details of children included in this sub-sample are presented in Table 3.1.

For the eight sampled cases, data were available from interviews with children and their caregivers (transcripts translated to English) and group activity reports written by field researchers. In line with my research aims for this phase of work, I focused my analysis on interviews and activities carried out with children. Concurrent to my work, members of FLE and YL carried out thematic and narrative analyses on all data (Boddy, 2014; Morrow et al., 2014; Shukla et al., 2014).

⁸ *Young Lives* works with a 'pro-poor' sample, yet this includes some variation in household income (for an explanation of the Young Lives sampling strategy in India, see Kumra, 2008).

Table 3.1: Sample of children in secondary analysis of *Young Lives* data

Participant pseudonym	Research site⁹	Employment/educational status at each research round
Sarada (F)	Rural site, Telangana	Round One (R1): In school (seventh class) Round Two (R2): In school (eighth class) Round Three (R3): In school (tenth class)
Mohan (M)		R1: In school (seventh class), also attending to family fields R2: Working on family fields R3: Working on family fields and on daily wage work in his village
Bhavana (F)	Rural site, Rayalaseema	R1: Working within the home in her village and (seasonally, with the rest of her family) in Mumbai R2: Working within the home and on daily wage work in her village and in Mumbai R3: Working within the home and on daily wage work in her village
Ravi (M)		R1: Working on a farm in his village to pay off a family debt R2/R3: Working on daily wage work in his village and in towns across Rayalaseema
Preethi (F)	Rural (tribal) site,	R1: In school (sixth class) R2: In school (seventh class) R3: In school (ninth class)
Vinay (M)	Coastal Andhra	R1: In school (eighth class) R2: In school (ninth class) R3: In school (eleventh class)
Sania (F)	Urban site, Hyderabad	R1: In school (fifth class) R2: In school (sixth class) R3: In school (eighth class)
Rahmatulla (M)		R1: In school (seventh class) R2: In school (eighth class) R3: Working in a garment shop in central Hyderabad

⁹ Telangana, Rayalaseema and Coastal Andhra are regions making up the former state of Andhra Pradesh.

Analysis of *Young Lives* data

I used a combination of thematic and narrative analytic methods to analyse YL data. Analysis began at the stage of selecting cases, as I read through transcripts of interviews with all 24 children. This reading built on my previous reading of YL reports and afforded an overall understanding of some of the commonalities and differences between children's lives in the four research sites. As I read, I noted areas of potential theoretical interest, as well as contextual questions and areas of uncertainty to discuss with YL researchers. Before carrying out in-depth analysis on data selected, I organised notes generated through reading transcripts and published YL reports around areas of thematic interest and discussed these with the FLE team.

Subsequently, I carried out case-based analysis on data generated with two children living in Hyderabad, treating the child as the 'unit of analysis' in each case (Yin, 2003). The significant time anticipated in completing in-depth analytic work and the need to plan, pilot and carry out new data generation within the time-frame of my PhD study accounted for my focus in this initial case-based analysis on two cases only. The decision to work with urban data was taken in conjunction with the FLE team. Our initial reading of data suggested that the ways in which the lives of rural participants were entwined with their physical environments were more immediately 'obvious' than those of their urban counterparts, as most rural livelihoods were at least partly agricultural, and most child participants had experience of agricultural work. However, in line with our mutual aims to explore the multiple meanings of 'environment' and to use this phase of work to assist our contextual understandings for the new data generation, we felt that working with urban data represented an opportunity to expand understandings of the variety of ways in which children's environments shape their everyday lives.

I began my case-based analysis with data generated with Rahmatulla, a boy living in Hyderabad. I first read through all research activities and noted down extended or recurrent talk around a particular topic in each interview. I then returned to these extracts of talk to consider the themes that I interpreted to organise this talk within and across interviews. Rapley describes this process as

one of 'generat[ing] an increasingly refined conceptual description of phenomena' by exploring the 'underlying [...] essence, meaning, norms, orders, patterns, rules [or] structures' in these phenomena (2011, p. 276). Unlike researchers who use thematic analysis as a primary analytic tool to inform and generate theory (see, for example, the detailed approach to using thematic analysis presented by Braun & Clarke, 2006), this thematic work served as a preparatory stage to situate the narratives I went on to identify and interpret in the wider content of Rahmatulla's case (see Riessman, 2008, 2011; Squire, 2013 for accounts of using thematic analysis to support narrative analysis; also Shukla et al., 2014, for how FLE and YL researchers used thematic and narrative approaches in this work).

I then read Rahmatulla's interviews again to identify narratives constructed by one or more speaker. Using Squire, Andrews and Tamboukou's definition of narratives as 'sequences with a specific order, temporal or otherwise, which takes [them] beyond description; and by a particularity that takes [them] beyond theory' (2013, p. 13), I identified extracts of transcripts to analyse in detail and approached these with the following questions, adapted from my engagement with narrative research literature and from discussions with members of the FLE team:

- What narratives are constructed in this extract?
- How do interviewer and child work together to construct narratives?
- What voices come across in the narratives?
- How do speakers position themselves relative to others in the narratives, and in relation to the researchers they construct narratives for and with?
- What 'canonical narratives' do speakers reference in constructing personal narratives?

Having spent time identifying and detailing personal and canonical narratives in Rahmatulla's data, I discussed these with other team members. Opportunities to meet to discuss analyses were embedded into the research design for this work, and helped me to see the multiple interpretations that may be constructed from data (Squire, 2013, p. 57). Leading on from discussions with the FLE

team, I went back to Rahmatulla's interviews and began to write a case report. The process of writing helped me to further develop my conceptual ideas and see connections between themes and narratives in the data.

I then carried out case-based analysis with data generated with Sania, a girl living in the same community as Rahmatulla. Having identified preliminary themes and narratives in a way that paralleled work with Rahmatulla's data, I constructed a number of thematically organised tables to systematically consider narrative extracts of data relating to these themes. Upon completion of the thematically-organised tables, I wrote a case report of my analysis of Sania's data. Reading Rahmatulla and Sania's data in close succession shaped my analyses and understandings of both children's narratives, and drew my attention to a number of gendered differences in how the two children described their everyday interactions with the people and spaces around them (see Chapter Four for further discussion).

The theoretical and methodological learning gained from working in depth with these data and from my earlier readings of all eight children's data were both intrinsically invaluable and helpful for my planning for the new data generation. I later returned to the eight YL cases following my fieldwork and analysis of new data, and conducted a further thematic review in line with the three areas of theoretical interest underpinning this study: the affordances of children's everyday environments; children's situated understandings of environment and environmental concern; and children's agency to act in response to environmental concerns. This phase of analysis was relatively more theory-driven than the inductive analyses outlined above. Once I had carried out this thematic review, I looked in detail at extracts of data around these themes from across the eight cases and attended to the co-construction of narratives in these extracts. Chapter Four of this study is written largely from this later analytic work. Nonetheless, the work presented in this and other analytic chapters in this thesis is founded on my initial work with YL data and the intensive methodological and theoretical learning that this facilitated.

3.4: Ethical considerations in secondary analysis and new data generation

In this section I outline decisions taken with other FLE members in response to the ethical considerations raised by the two phases of work comprising this study.¹⁰ For both phases of work, I submitted a research ethics application to the Institute of Education Doctoral School Ethics Committee and received ethical approval for the work. Both phases of my study were included in the ethics application submitted by the FLE project to the Institute of Education Faculty Research Ethics Committee.¹¹ Carrying out the research in practice required sustained and situated attention to ethical considerations, as detailed across sections below.

Secondary analysis of data is sometimes assumed to pose few ethical challenges because it does not involve direct contact with participants, however various factors, particularly the potential for secondary analysts to misinterpret data, makes it a 'more ethically complex task than regulatory frameworks may imply' (Morrow et al., 2014. p. 1). Researching ethically with human subjects requires a commitment by researchers to avoid representing participants in any way that might cause harm to them or others (ibid, see also Coltart, Henwood, & Shirani, 2013; Fossheim, 2013). In secondary analysis, this commitment extends to the representation of the primary researchers and study for which data were originally generated. Whilst YL data were fully anonymised for details of the research participants and the individual researchers involved in generating the data by the time I was granted access to these, this work necessitated careful consideration of the implications of my analyses for the ongoing completion of the YL study (see further discussion of the implications of this for sharing YL data in Morrow et al., 2014, p. 6). As part of the data agreement signed between FLE researchers and YL, we agreed to store data securely, not to share these data with anybody outside of the FLE research team and to share analyses with YL researchers before presenting these.

¹⁰ The use of the collective pronoun across this section refers to collaborative decisions and activities undertaken by FLE research team and myself.

¹¹ See Appendix Three for notifications of ethical approval to undertake both phases of work.

At each round of YL research, oral consent was obtained from all participants that the information they provided would be kept confidentially and used only for research purposes (for further details of ethics considerations in YL, see Morrow, 2009). The consent process included participants' approval for the archiving of data for further research in line with the aims of the research as described to participants, namely 'to find out about children's everyday lives: the things you do, and the important people in your life, and how these things affect how you feel' (*Young Lives* Protocol for Qualitative Research Teams, quoted in Morrow, 2009, p. 5). I submitted my provisional research aims and questions to YL researchers before being granted access to data, having spent significant time familiarising myself with YL research contexts and the aims and findings of the study by reading published reports. We agreed that these were consistent with the consent that participants had given for the use of their data.

Social research proceeds through relationships. It is important, therefore, to consider that researchers are not 'technical operators' but 'a central active ingredient of the research process' (Edwards & Mauthner, 2004, p. 15). The close collaboration with YL researchers at all stages of the secondary analytic work was both necessary and invaluable as a means of mitigating the cultural, linguistic and geographical distance between the data and myself as a secondary researcher who was initially unfamiliar with the contexts in which the data were generated. The contextualisation enabled through working with YL data and the discussions that ensued between FLE and YL researchers as we shared analyses were moreover invaluable in helping me to prepare for the new data generation in both countries.

The methods proposed for the new data generation, and the varying generational, cultural, linguistic and socio-economic differentials between myself and the participants that the FLE team and I worked with in the new data generation, present a number of ethical considerations. Arguments about the social status of childhood as discussed in Chapter Two have led to considerable interest in the ways in which children are included and heard in social research, both by researchers and other participants (Alderson & Morrow, 2011; Christensen & James, 2008b; Mayall, 2008; Punch, 2002b). However,

regardless of researchers' attempts to support children's participation and recognise children as 'experts in their own lives', embedded generational hierarchies in and across societies are such that children are likely to associate the adult researcher to greater or lesser extent with a position of power (Alderson & Morrow, 2011; Mayall, 2008; Punch, 2002b; Robinson & Kellett, 2004). Moreover, as researchers cited here have stressed, as those who plan, seek participants' consent in and (co)-lead research activities and subsequently interpret and present the information shared, researchers *are* in a position of relative power in research and therefore have significant responsibility to the participants with whom they work. As a research team, we carefully considered all aspects of the research design, and allowed multiple opportunities to pilot research activities in both countries and to adapt activities based on these experiences and piloting participants' feedback.

Attention to children's generational positioning, and to culturally appropriate ways of requesting family members' consent to participate in the research, was embedded in the way that the research team planned the process for getting informed consent. We agreed as a team that we would explain and discuss the research with all family members together, working through an information sheet written in the family's main language of communication (see Appendix Four for a copy of an English-language information sheet). We would then seek individual family members' consent in this group setting and record individuals' consent on audio-recorders or written forms (as appropriate). Whilst we would stress that family members could each make their own decision, we agreed that if the 'index child' in the family (an 11-12-year-old child who would be involved in all research activities) wished not to participate, we would not work with the family. A separate consent process would be carried out with children involved in school activities. Carrying out the consent process in this way was anticipated to respect individual family members' decisions, whilst avoiding situations described by some researchers in India where seeking consent from individual family members has been interpreted by other family members as undermining the social cohesion of the family (see discussions by Abels, 2008; Kaura, 2008; Miltiades, 2008 on collectivist understandings of family in India).

Researching with human subjects involves a responsibility to be clear from the outset about any risk or benefit of the research, whilst making clear that participants are under no pressure to agree to or continue taking part (Alderson & Morrow, 2011; Fossheim, 2013). Whilst this responsibility applies across cultural and socio-economic contexts, it is important to recognise that any perceived benefit may have more relevance to children and families in financially constrained settings, who may understandably wish ‘to use their very limited time and resources on activities that will bring them direct benefits’ (Morrow, 2009, p. 8). As a research team, we agreed that the process of informed consent should be the same for all research participants; however, the inclusion of relatively poorer participant children and families in the research in both countries underscored the need to be clear and realistic about the aims and possible benefits of the research and not to raise families’ expectations about any kind of financial compensation or intangible benefit.

Literature relating to research ethics and reflexivity brought my attention to the significant role that I would have in interpreting and presenting data (see discussions by Andrews, 2013; Coffey, 1999; Mauthner & Doucet, 2003; Riessman, 2015). One way in which I sought to attend to this, along with others in the research team, was by incorporating the writing of fieldnotes into my research practice, starting with fieldnotes of our piloting experiences. Sharing and discussing these fieldnotes with other researchers shortly after completing research activities enabled insights into my own and other researchers’ situated interpretations and generated a resource for reflexive analyses (Birch & Miller, 2002).

As with the secondary analysis of data, planning and carrying out this study ethically also necessitated consideration of the processes of handling, storing and presenting new data generated, in line with the UK Data Protection Act 1998, which regulates the ethical use of all information relating to individuals. As a research team, we made decisions relating to the secure storage and sharing of new data between team members in advance of generating data, including encrypting any documents containing identifying information that would be shared electronically. We agreed to fully anonymise data before presenting or sharing these outside of the team. As we planned to generate photographs and

maps, we anticipated that this would mean removing any identifying details in these data. We communicated these decisions to participants in the information sheets produced and when seeking their informed consent. We also agreed with participants that we would share a summary of research findings with them.

3.5: New data generation in India and England

The new data generation for this PhD study proceeded through a shared research design developed with *Family Lives and the Environment* (FLE) researchers. The decision to incorporate a number of intersecting structural varieties into the sample was intended to avoid reducing contextual variety in children and families' experiences and understandings of environment to simplistic country-level differences. This decision was influenced by observations made by scholars of childhood (amongst others) that, in an age of economic, political and cultural globalisation, dualistic conceptualisations of the world (such as the Global North/South) are insufficient for understanding the complex connections between children's lives across contexts (Aitken, Lund, & Kj rholt, 2007; Holt & Holloway, 2006; Jamieson & Milne, 2012; Panelli, Punch, & Robson, 2007). Balagopalan, an Indian sociologist of childhood, has argued that attending to the 'multiple modernities' of childhood in a globalised world may be one way of challenging the 'discourse of 'lack'' associated with childhood in the majority world (2011, p. 291).

In constructing a multiply-varied study sample, the FIE team and I worked with children and families living in four broad contextual locations; London, rural Southern England, Hyderabad and rural Andhra Pradesh. We worked with children attending schools with varying fee-structures in both countries as a way of incorporating socio-economic difference into the sample. We also worked with an equal number of boys and girls across the four research contexts in order to attend to variety in children's 'micro-geographies'; that is, how children's gendered and generational positioning in their environments affect how they use and come to know their environments through embodied interactions (Ansell, 2009; Holloway & Valentine, 2000a; Philo, 2000).

Although incorporating variety, the study sample for new data collection was designed around two areas of commonality: namely, that all 'index children' lived with their families and all were attending school and were in the same school year (year seven in England and seventh class in India). Most index children were aged eleven or twelve at the time of the research, although one child in the sample was fourteen.¹² More broadly, children across the sample share a 'generational location' (Mannheim, 1952 [1923]) that positions them structurally in relation to the adults with whom they interact, albeit in different ways across contexts (Alanen, 2003; Mayall, 2002; Punch, 2007a; Qvortrup, 2009).

As research sites, London, Southern England, Hyderabad and rural Andhra Pradesh made practical sense as research team members were living in these regions at the time of the research and were working at research institutions with existing links with schools across these regions. The four sites also presented contextual commonalities and differences, which we anticipated to support our research aims. London and Hyderabad are cities of similar sizes with growing populations (around 8.1m residents in London and 7.7m in Hyderabad were recorded at the last census counts, see Government of India, 2011b; Office for National Statistics (ONS), 2012). Along with over-crowding, air pollution is a concern in both cities (Department for Environment, Food and Rural Affairs (DEFRA), 2014; Guttikunda & Kopakka, 2014). Growing inequalities in household income have been noted in both cities, along with disparities in residents' access to safe and affordable housing. Disposable household income per head amongst London residents was 28% higher than the UK average in 2011 (ONS, 2013b), yet this belies the finding that fourteen of the twenty local authorities with the highest rates of child poverty across the UK are in London (Campaign to End Child Poverty, 2014).¹³ Around 35% of the urban population of Andhra Pradesh (a third of whom live in or around Hyderabad) were reported to live in 'slums' at the most recent census, often

¹² In government schools in India, it is not unusual for there to be older children in seventh class. Although we endeavoured to work with 11-12-year-old children where possible, this was not possible in the government school in Hyderabad where the index boy was 14.

¹³ Rankings are based on the percentages of children in local authorities living in households classified as relatively or absolutely poor as defined in the UK Child Poverty Act, 2010.

without access to basic services (Government of India, 2011a).¹⁴ Meanwhile, Hyderabad's success in attracting international investment has led to the city's rebranding as a 'global knowledge centre' and the development of formerly peripheral areas into housing, schools and services for those working in Hyderabad's expanding 'knowledge corridor' of software campuses, research institutions and financial service centres (Rao, 2007).

The relatively low rural population density in England, along with more open spaces, higher air quality and the perceived safety of rural life are often considered to make rural areas in England favourable to childhood (Jones, 2007; Tyrrell & Harmer, 2015). Nonetheless, increasing demand for private and social housing as well as 'alternative' resource exploration are changing the topography of some parts of rural England (Department for Communities and Local Government (DCLG), 2014; Moore, 2014). UK-wide census data from 2011 shows that just 3.4% of the economically active rural population worked in the agriculture, forestry and fishing sector (ONS, 2013a). In contrast, agriculture is the main livelihood for the majority of rural households in Andhra Pradesh (Government of Andhra Pradesh, 2013), and research carried out for YL has found that many children engage in agricultural work (Galab et al., 2011; Morrow & Vennam, 2010). Recent years have seen persistent crop failures across many parts of Andhra Pradesh, including in the region in which research for this study was carried out. Around a third of participant households in YL household surveys conducted in 2006 and 2009 reported experience of an 'environmental shock' in the years preceding the survey (Dornan, 2010; Galab et al., 2011).¹⁵

Constructing a research sample

Within and across the four broad research sites, the research team constructed a varied research sample by working with:

¹⁴ 'Slums' were defined in the census as 'a compact area of at least 300 populations or about 60-70 households of poorly built congested tenements, in unhygienic environment usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities' (Government of India, 2011a, p. 2).

¹⁵ The term 'environmental shock' was used to cover events such as drought, flooding, death of livestock or diseased harvests (see Dornan, 2010).

- three schools across Hyderabad (two of which were fee-paying)
- three schools (one fee-paying) across London
- two schools (one fee-paying) in relatively close proximity in rural Southern England
- two schools (one fee-paying) in relatively close proximity in rural Andhra Pradesh
- one school (fee-paying) in a city bordering the region where rural schools were located in Andhra Pradesh¹⁶

Having purposively sampled schools in line with our aims to work with a socio-economically varied sample (drawing on publicly available information to inform our choices), we made phone or email contact with schools and, where possible, visited schools in person to explain the research to a contact teacher. The approach to sampling in each country was agreed in consultation with contact teachers to determine an appropriate approach, hence the differences in procedures between England and Andhra Pradesh.

In all schools in Andhra Pradesh, we initiated the sampling process directly with children in schools by explaining the research to all children in seventh class, with the help of school staff where appropriate. We then invited all children interested in participating to write their names on slips of paper, which we placed in gender-specific boxes. We drew the names of three boys and three girls at random in front of the class and consulted with the six children, responding to any questions and reiterating the time involvement of the research. Where these children expressed sustained interest in participating, we requested their consent to contact an adult family member. Madhavi contacted family members of the first boy and girl drawn at random by telephone to explain the research and repeated the process with family members of the second and third children if family members declined to participate. In one case, we returned to the school to sample as all three boys' families declined to participate. Most family members, however, expressed interest in the research and consented to a home visit from the research team

¹⁶ Pen portraits of these schools are included in Appendix Two. The decision to work with a school in a city bordering the rural area in Andhra Pradesh was informed by state-wide social trends where educational possibilities available in urban centres are drawing relatively affluent and middle class families to regional cities (for discussion of this in YL data, see Vennam & Komanduri, 2014).

to explain the research to all family members. We were able to include the other children from the six in the school group activity, including those whose parents declined to participate in research activities.

In England, the team asked school contacts to send letters and information sheets explaining the research to all Year Seven students and their families on our behalf, and parents contacted a member of the research team to express the family's interest in participating. Having responded to family members' questions over the telephone, the research team sought consent to visit the home to explain the research. In all schools, the response rate was relatively low, thus we arranged to visit families as soon as they expressed interest in the research, and built the sample in a gradual way.

In our visits to family homes in both countries, we explained the research to all family members and those who wished to participate gave consent in oral or written form. We made clear to all families that there was no obligation to participate and that they could withdraw from the research at any stage. Two families who began the research process in Andhra Pradesh withdrew after the first research visit. We were able to include the child of one of these families in the school group activity (for which, in each case, we sought separate consent from participants), and we acknowledged the family's participation with the same token gifts given to all families at the end of the research (see below). As agreed with the two families who withdrew, we have not used their data.

Along with Madhavi Latha and Natasha Shukla, I carried out research activities with twelve children (six boys and six girls) and their families in Andhra Pradesh, as well as an additional twenty-four children in group activities in the six schools attended by these children. I also conducted interviews with teachers in each school. In England, I carried out research activities alongside Janet Boddy with three children and their families (two girls and one boy, all in rural Southern England). I also carried out group activities with these children and four others in the two schools they attended and interviewed teachers at both schools. I did not research directly with children and families who participated in the FLE study in London, although I included three children (two

boys and one girl) in my sample for analysis.¹⁷ My experience of carrying out secondary analysis was helpful in analysing these children's data and I was able to consult with Helen Austerberry and Hanan Hauari who generated these data.

Table 3.2 includes details of the children who took part in the new data generation, organised according to the type of school attended. Details of the eighteen children who participated in the full set of research activities with their families are marked in italics.

¹⁷ The full sample for FLE comprises twenty four families, including the eighteen children and families making up the sample for this study and six additional children and families in Southern England and London. I had the chance to work with three of the children from the wider FLE sample in school group activities (Amy, Jack and Ben, included in Table 3.2) but did not use any other research materials generated with these children and their families.

Table 3.2: Sample of children in new data generation for this study

Type and location of school	Participant pseudonym (gender, age at time of research)
Fee-paying international school, Hyderabad	<i>Amrutha (F, 12), Aamir (M, 12)</i> Nisha (F, 12), Jahnavi (F, 12), Sandeep (M, 12), Naren (M, 12)
Fee-paying private school, Hyderabad	<i>Gomathi (F, 12), Rahul (M, 12)</i> Geethika (F, 12), Preethi (F, 12), Sridhar (M, 12), Sampath (M, 12)
Non fee-paying government school, Hyderabad	<i>Mamatha (F, 12), Anand (M, 14)</i> Shruti (F, 12), Kumari (F, 12), Prasad (M, 13), Chaitanya (M, 12)
Fee-paying international school, regional city in Andhra Pradesh	<i>Reethika (F, 12), Nageshwar (M, 12)</i> Sandhya (F, 12), Meera (F, 12), Ananth (M, 12), Mohanram (M, 12)
Fee-paying private school, rural Andhra Pradesh	<i>Chitra (F, 12), Hemant (M, 12)</i> Bindu (F, 12), Kalpana (F, 12), Nagendra (M, 12), Sanjay (M, 12)
Non fee-paying government school, rural Andhra Pradesh	<i>Dharani (F, 12), Chandrasekhar (M, 12)</i> Divya (F, 12), Meena (F, 12), Akhil (M, 12), Lokesh (M, 12)
Fee-paying independent school, rural England	<i>Rosie (F, 12)</i> Oliver (M, 11), Ben (M, 12)
Non fee-paying state school, rural England	<i>Helena (F, 12), Callum (M, 11)</i> Amy, (F, 11), Jack (M, 12)
Fee-paying independent school, London	<i>Humphrey (M, 12)</i> No research activities were carried out in London schools
Non fee-paying state schools, London	<i>Tamsin (F, 12), Kofi (M, 11)</i> No research activities were carried out in London schools
Total number of child participants	<i>Children who participated in all research activities (n= 18)</i> Children who participated in school group activity only (n=28)

Learning from existing studies to design the research

In designing the research, the FLE research team and I sought to learn from methodological insights generated through studies that have used multi-sensory and task-based methods as a way of engaging children and young people, reducing the pressure they may feel to say or do the 'right' thing and generating visual data to serve as prompts for discussions in research activities (Cele, 2013; Clark, 2004; den Besten, 2010; Einarsdottir, 2005; Luttrell, 2010; Punch, 2002a). Our secondary analytic work and the involvement of YL researchers in planning the new data generation meant that we were able to learn from YL in particular. The use of interactive tasks such as community and body mapping, story completion and the construction of life-course timelines in interviews and group activities in YL has elucidated children's perspectives on a wide range of topics, including children's wellbeing, political and social change and poverty and risk (for discussions of data generated through these task-based activities, see Crivello et al., 2008; Crivello, Vennam, & Komanduri, 2012; Vennam, Crivello, & Kongara, 2010).

The team was also influenced by the growing number of studies that use photographs to elucidate the materiality, spatiality and relationality of children's everyday lives and prompt discussion of 'content and topics that might otherwise be overlooked' (Luttrell, 2010, p. 225; see also Bell, 2013 ; Cele, 2013; Croghan et al., 2008; Harper, 2002; Pink, 2007 for similar arguments). Luttrell argues that photography has the potential to support children's 'visual voices', particularly when the research design incorporates opportunities for children to discuss and interpret their photographs 'in specific contexts and with multiple audiences in mind' (2010, p. 225; see also Barker & Smith, 2012; Lomax, 2012). Similarly, Clark writes of the 'mosaic approach' involving various multi-sensory activities with young children, including photography, mapping and mobile interviews, as 'a platform where children are given many different opportunities to express their views and then to be part of the interpretation' (2004, p. 154; see also Clark & Moss, 2011).

The research team also saw the potential for cognitive mapping methods to prompt discussion of the meanings associated with particular places in children

and families' environments (see accounts by Christensen & Prout, 2003; Crivello et al., 2008; den Besten, 2010; Lolichen et al., 2006; Sriram & Chaudhary, 2008). Furthermore, we sought to build on studies that have used mobile or 'emplaced' interviews, often in tandem with the visualisation of spaces through mapping, photography or videography, to explore children's 'emotional geographies' of their environments (see Anderson & Jones, 2009; Bartos, 2013; Cele, 2013; Hart, 1997; Murray & Mand, 2013; Ross et al., 2009; Spinney, 2015). Whilst there has been some critical interrogation of claims that 'participant-led' methods such as photography, walks and mapping automatically support children's agency and participation in research activities (see, for example, Barker & Smith, 2012; Gallacher & Gallagher, 2008; Lomax, 2012), such methods can be used in ways that enable relatively greater choice for children and other participants over how research activities proceed (Clark, 2004; Crivello et al., 2008; Hart, 1997; Lolichen et al., 2006).

Building on other studies that have brought together family members to collectively participate in group activities and discussions (MacLean & Harden, 2012; McCarthy et al., 2003; O'Connell & Brannen, 2014), the team saw potential in how the methods discussed above might encourage the collective participation of family members (and, separately, school peers) in particular tasks and serve as prompts for participants' narratives in group discussions and individual interviews. At the same time, our research led from an understanding that individual family members have different perspectives on topics, and may recall the same events in different ways (as well as studies cited above, see Phoenix & Brannen, 2014). Carrying out individual activities with children in the context of research studies with families means that children's perspectives are less likely to be overlooked or assumed to mirror those of other family members (Crivello et al., 2008; MacLean & Harden, 2012; Walker et al., 2012). Interviews with children, whether conducted with individuals or groups, have also been observed as a way of improving understandings of children's competences (Alderson & Morrow, 2011; Kellett & Ding, 2004; Mayall, 2002, 2008; Punch, 2002b). Such insights prompted the research team to incorporate multiple opportunities for children to speak and act in different social settings into the research design.

Piloting the research

The research design for this study was informed by opportunities to pilot research activities in both countries over three phases. The first phase took place in England and Andhra Pradesh and involved the research team piloting different research activities (individual and group interviews, mobile interviews and photo elicitation activities) with four families in London and Southern England and three families in Hyderabad and rural Andhra Pradesh. The research team also visited a school in rural Andhra Pradesh, where we completed mapping and vignette activities with students. These experiences enabled us to try out different methods and to become familiar with some of the advantages and practical challenges presented by these. Piloting activities in Andhra Pradesh, along with Madhavi Latha and Uma Vennam, allowed for opportunities to try interviewing in translation and generated *in situ* opportunities to discuss cultural expectations associated with consent procedures, the confidentiality of research activities and appropriate researcher responses to participants' (including materially poor participants') hospitality. In both countries piloting research activities enabled the team to refine procedures for these activities and to inform potential participants of the time that taking part in the research would involve.

This first phase of piloting enabled the research team to construct a provisional schedule of research activities which Natasha Shukla, Madhavi Latha and I piloted in completion with one family and six school peers in Hyderabad before commencing the main fieldwork. Upon return to England following fieldwork in Andhra Pradesh, the research team piloted the full set of research activities with three families in London and Southern England and the school activity in a school in Southern England. Through this third phase of piloting in England, we made small changes to culturally-appropriate research procedures in what was now a less 'familiar' research context. As well as prompting situated considerations of the practical, theoretical and ethical aspects of the research, piloting experiences in both countries supported the development of research relationships between team members. In both countries, team members kept and shared fieldnotes of piloting experiences, which served as a valuable personal and methodological resource in subsequent research activities.

Methods used to generate new data

The shared research design for this study and FLE involved a range of methods, carried out across three visits to each family home and one visit to the index child's school. The methods used are outlined below and protocols guiding all research activities included here are reproduced in Appendix Four.

Table 3.3: Methods used to generate new data

Research visit	Activities carried out
Home visit one	<ul style="list-style-type: none"> • Explanation of research and consent process as outlined above. • Family discussion of everyday routines and practices, incorporating the collective construction of a map representing significant places in the local area and family members' responses to a hypothetical vignette. • Distribution of three separate cameras to the 'index child', (self-elected) main caregiver and the rest of the family with the suggestion to use these to photograph places, people and objects of importance to the photographers' everyday lives, encompassing 'likes' and 'dislikes'.
Home visit two	<ul style="list-style-type: none"> • Mobile interview (walking or driving) around the 'local area' led by the 'index child' and main caregiver and guided by the map constructed at home visit one. • Semi-structured individual interviews with the child and main caregiver. • Collection of research cameras.
Home visit three	<ul style="list-style-type: none"> • Individual interviews with the 'index child' and main caregiver about their photographs, leading to participants selecting five photographs to share with the rest of the family. At the same time, other family members worked separately to select photos from the third camera. • Family discussion structured around family members' presentations of their photographs and a group task in which family members collectively selected three photos to best represent meanings of 'environment' in their family life. • Closing discussion with the family.
School visit	<ul style="list-style-type: none"> • Group activity with 'index children' and up to four peers, incorporating the construction and discussion of maps representing individual children's journeys to school, children's responses to a hypothetical vignette and a discussion of school-based environmental education activities. • (where possible) Mobile interview carried out around the school with group activity participants. • Individual interview with a member of staff.

As outlined in sections above, research activities were intended to function in conjunction with one another to generate multiple insights into children and families' everyday lives. Carrying out research over four separate visits, including the school visit, meant that as a research team we were able to build relationships of growing familiarity with participants over these visits, and request further information on particular topics that, upon reflection, we interpreted to be of particular significance to participants, or to our research interests. Keeping fieldnotes and sharing these with other researchers between research activities proved to be a very useful process for elucidating such topics, as well as serving as an outlet for me to process my emotional responses to research activities (as has also been reflected on in ethnographic accounts written by Birch & Miller, 2002; Coffey, 1999; Punch, 2012). Writing and discussing fieldnotes also helped me to reflect on aspects of the research design that participants or I had found challenging, and to consider if this necessitated any amendments to research protocols.

Rather than an exhaustive list of questions and topics, research protocols for activities (presented in Appendix Four) were intended as flexible guides enabling the generation of children's situated narratives on particular topics. Nonetheless, I often found it difficult to achieve the balance between allowing time and space for children to construct narratives around these topics, and ensuring that we had covered enough of the range of topics in the protocols to allow for data offering multiple perspectives on similar themes across the sample. Whilst the time involved in working in translation made this yet more challenging, this was also helpful in providing time for me to process participants' responses and to think through follow-up areas. Working alongside Madhavi and learning from her considerable experience of carrying out research activities with children was a valuable learning process. As well as translating between languages, Madhavi's input into research activities (including those carried out in English)¹⁸ often clarified or rephrased my questions in a way that made sense to participants. In translating participants'

¹⁸ In research activities in Andhra Pradesh, we stressed that participants should speak in the language they felt most comfortable in and encouraged family members to all use the same language. Some children were keen to speak in English, perhaps wishing to demonstrate their English language education. This is seen in extracts of transcripts included in Chapters Five to Seven, where some children switch between languages in research activities.

responses, Madhavi frequently added contextual information that she interpreted I might need as a non-native researcher. Dual language transcripts of research activities illustrate the additional cultural work that Madhavi performed in research interviews (as also discussed by Brännlund et al., 2013; Riessman, 2008).

Carrying out research with groups and, in particular, in mobile activities posed practical and ethical challenges in terms of ensuring that all participants had opportunities to speak, and to be heard. In school group activities, which often took place in noisy and provisional settings within the school, it was often practically difficult to hear softly spoken participants, whilst persistent requests for children to speak more loudly could interrupt the flow of the activity. Managing group dynamics between more and less vocal participants was also challenging, although working in translation was helpful as I was able to reflect, as Madhavi and participants spoke in Telugu, on who had spoken less. All group activities were designed to allow space for individual as well as collective participation, for example, as children constructed and presented individual maps in school activities, as family members selected and presented their own photographs and as family members took it in turns to add places to the map they constructed and to communicate their feelings about these places.¹⁹

Working with children between spaces enabled me to observe how the social dynamics of such spaces affected children's participation in research activities, as some children appeared to participate more or less confidently in activities carried out with family members, with peers or individually. Group activities carried out with family members also afforded 'real time' insights into family processes of negotiation as family members worked together to construct data – maps, photographs and verbal narratives – representing their family lives. The final element of the photo-elicitation task, in which family members worked together to select three photographs to represent their family life and the meanings of environment in everyday life, offered particular insights into generational dynamics in the variety of ways in which families negotiated and made decisions.

¹⁹ In mapping activities, the research team encouraged individuals to mark places on the maps that they liked or disliked with yellow and black stickers, and to explain their reasons for this.

We used disposable cameras in the research, prompted both by ethical concerns about giving relatively more expensive cameras to poorer participants in the sample and by the understanding that not having the chance to edit and review photographs in advance of research interviews might allow for richer interpretations from participants as they reviewed photographs in ‘real time’ with researchers. Whilst the task of taking and discussing photographs generated different levels of interest amongst children (as is frequently reported in studies using photo-elicitation; see Luttrell, 2010; Änggård, 2015), photographs often generated retrospective narrative accounts about the content and context of the photograph. Before sharing photographs with other family members, we invited children to remove any that they did not wish to be included in the research. Sometimes it transpired that another family member (often a sibling) had ‘borrowed’ the camera and taken photographs. Interviews also led to discussions about photographs that had not been taken or had not been processed for various reasons.²⁰

Mobile interviews posed practical challenges, particularly when carried out in noisy or hazardous conditions. Whilst these conditions made for challenges in recording and transcribing data, and sometimes constrained conversations, these conditions also offer insights into children’s spatial practices and afforded embodied experiences of some of the hazards or pleasures involved in children and other family members’ navigation of the spaces of their everyday lives (see Walker, Boddy, & Phoenix, 2014 for further discussion). Walks also prompted discussions of unanticipated topics and offered further insights into family dynamics as family members worked together to plan routes based on the map they had constructed.

Families in both countries were incredibly hospitable. In order to include as many family members as possible, we often visited during their leisure time and by the third research visit there was often a sense of familiarity and routine. On their own initiative, families in both countries often included us in ‘social time’

²⁰ Amongst possible reasons for why some photographs were not processed are participants not having fully engaged the shutter on the camera, heat exposure or a malfunction of the camera. See Walker (2013) for further reflections on the ethics and practicalities of the photo-elicitation activity.

before or after research activities, which offered a valuable chance to build rapport. As noted in other studies carried out by researchers working outside of their native cultures (Abels, 2008; Dyson, 2014; Miltiades, 2008; Riessman, 2005), my cross-cultural experiences were a source of interest to families in both Andhra Pradesh and England, as participants in both countries often asked about my impressions of India. On two occasions in Andhra Pradesh, the research team was invited to share a meal with the family at the final research visit. We accepted these invitations and ensured that we covered any additional costs incurred.

As noted in the discussion of ethical considerations included above, the research team stressed from the outset that there would be no financial benefit to families, or schools, of taking part in the research. We gave token gifts to families (small souvenirs of the Institute of Education, stationery items for children, a cloth bag for parents and grandparents and an extra copy of photographs taken with research cameras) at the final visit and to school group activity participants. Whilst working with four very poor families in Andhra Pradesh, we also made the decision as a research team to give a large blanket to each family, leading on from accounts shared in research activities of family members sleeping close together in cold and sometimes leaking homes at particular times of the year.

At the end of the research process, we requested consent to archive participants' fully anonymised data for future researchers' potential use. Whilst all families consented to this, our request, along with questions included in closing discussions with families about the main points that they wished to communicate to policy-makers and researchers, often led to extended discussions (either during or after research activities) about the purpose of the research. This was particularly the case with two materially poor families in India, both of whom expressed some distrust of government activities. Parents in both families agreed that data could be archived on the condition that it was used 'for good'. As a research team, we communicated our relatively limited influence over government policy, and reiterated earlier ethical agreements made with participants, relating to the use and full anonymization of data. Such discussions underscored the responsibility that researchers have to

participants, and led me to reflect on the precarious political (as well as environmental) position of the poor families in the Indian sample. Writing and discussing fieldnotes as a research team and subsequent discussions with other researchers with experience of working in precarious conditions have been helpful in processing the emotional responses raised by these discussions, and other aspects of the fieldwork in both countries.

Analysis of new data

As with analysis of *Young Lives* (YL) data, I employed a combination of thematic and narrative analytic methods carried out iteratively over a number of phases to analyse new data. There are strong arguments that those who translate and transcribe data draw on interpretive processes in making sense of what was said and how to represent this in a transcript (Bird, 2005; Esin, 2013; Green, Franquiz, & Dixon, 1997; Ochs, 1979; Temple & Young, 2004). Most transcripts generated from research activities in Andhra Pradesh were initiated by five translators in Andhra Pradesh, all of whom had translated and transcribed data for YL. Translators worked with full sets of family data to translate and transcribe all talk in Telugu (or, in very few cases, Hindi) and mark the occurrence of talk in English. All translators followed the same set of transcription conventions, which allowed for the recording of linguistic and paralinguistic nuances (such as hesitancy, repetition, pauses and laughter) in conversation. These conventions are presented in Table 3.4.²¹

Using the same transcription conventions, Natasha Shukla and I added English talk to transcripts (including translations given by Madhavi to English researchers), resulting in a dual language transcript which clarified the flow of meanings between languages and 'how the processes of translation function not only as a linguistic but also a cultural performance of narrative exchanges' (Esin, 2013, p. 50). Natasha and I transcribed activities conducted in English in Andhra Pradesh, whilst one transcriber in England transcribed all research activities carried out in London and Southern England (all in English).

²¹ For further discussion of how transcription conventions can support particular analytic approaches, see Lapadat (2000).

Table 3.4: Transcription conventions used to present new data

Translated talk	Transcribe translated talk in bold
Original language talk	Transcribe original language talk in plain type
(.)	Just noticeable pause (i.e., less than approx. 3 seconds duration)
(...)	Longer pause (i.e., more than 3 seconds duration, but not timed)
A: Talk [talk talk = B: = talk talk]	Equal signs on adjacent lines denote overlapping talk. Square brackets [] should be used to show where the overlap starts and stops.
(<i>A laughs</i>)	Interviewee laughs
(<i>B laughs</i>)	Researcher laughs
(<i>both laugh</i>)	Interviewer and interviewee laugh
(<i>telephone rings</i>)	Any audible and recognisable background noise
-	A cut-off in speech e.g. 'It was dis- I don't know why that was.'
Repeated letters	The speaker has stretched the preceding sound, e.g. 'It was diiiiiisgusting!'
<u>word</u>	Underline speech/sounds that are louder than usual or strongly emphasised.
(talk talk talk (<i>softer</i>))	Mark with brackets speech/sounds that are softer than usual – e.g., whispered. Do the same with faster and slower speech.
(<i>inaudible</i>)	Inaudible speech
('it was disgusting')	Put in brackets any guess at what might have been said if unclear.

My analytic work with new data began as I read through, added to or in some cases constructed new transcripts. The process of checking and listening back to all children's audio-recordings alongside transcripts was invaluable in increasing my familiarity with the data and was an essential first step for subsequent analysis (Braun & Clarke, 2006; Riessman, 2011). I also familiarised myself with visual data as I worked with these to transcribe or review the transcription of mapping, mobile and photo-elicitation activities.

Because data transcripts were completed over time (particularly as fieldwork in England took place some months after fieldwork in India), it was not possible to carry out a thematic analysis of all data before working in-depth with individual cases, as I had done with YL data. In contrast to my secondary analytic work, however, I had the advantage of personal (and increasingly analytic) familiarity with most of the data I worked with and therefore was able to conduct case-

based thematic analyses with other cases in mind. In each case, I first carried out a close reading of all data generated with the child, looking for and noting down 'key, essential, striking, odd, interesting things' in interview transcripts (Rapley, 2011, p. 277), and referring to visual data and my fieldnotes as I read. I then returned to the transcripts and assigned one or more codes to marked extracts to indicate points of interest in each extract (Braun & Clarke, 2006, p. 83). Initially, I used N-Vivo, a software programme for coding data, to carry out this work. Although helpful in familiarising me with the practice of coding data, the ease of using this programme to generate codes (and subsequently, themes) proved in some ways a hindrance, as on having coded four children's data, I found I had generated a database of 18 themes and 245 sub-themes, many of which were very similar. Upon discussion with my supervisors, I then shifted my coding 'offline', working with printed transcripts and highlighter pens and refining my list of themes and sub-themes into a shorter list of 'candidate themes' before continuing with this work (Braun & Clarke, 2006, p. 85).

As I coded more children's data, I added to and refined my list of candidate themes, along with the questions that I envisaged might frame the presentation of children's data across chapters of this thesis. I then wrote thematic summaries for each child, organised around my provisional analytic questions. Collating these summaries into one document gave me an overview of the sample to identify children's narratives (often 'small stories') around particular themes. Having considered potential data extracts for narrative analysis relating to particular questions, I returned to a number of 'candidate extracts' for each question and analysed these in greater depth. I first returned to the transcript and read around the extract containing the narrative identified in my case-based thematic analysis. I then demarcated a section to analyse in detail, often using a line-by-line approach and paying attention to how meanings were co-constructed between speakers.²²

I used a number of analytic tools to support this work. The questions that I had developed to consider the construction of narratives through my work with YL data proved to be useful (see Section 3.3, p. 79). Labov's (1972) systematic approach to the interpretation of narratives was also useful for analysing

²² See Appendix Five for an example of a worked narrative analysis.

extracts of data where speakers' stories followed a clear narrative structure. In Labov's approach, all talk making up narratives falls into the categories of abstract, orientation, complicating action, evaluation, and result. Occasionally speakers use a coda to 'sign off the narrative' and signify that its telling is complete. Although strict adherence to this approach precludes the analysis of 'small stories' that do not follow such a clear narrative construction, I found Labov's approach useful in highlighting the evaluative function that stories might serve for speakers, enabling them to make sense of events and present a particular stance or evaluation of events (see discussions by Franzosi, 1998; Patterson, 2013). I also utilised Bamberg's (1997) three-level approach to interpreting individuals' positioning in the narratives they construct in research interviews. Bamberg considers that positioning operates in how speakers position themselves in relation to others within the reported events, in how speakers position themselves to the audience and in how speakers position themselves to themselves; that is, 'how language [is] employed to make claims that the narrator holds to be true and relevant above and beyond the local conversational situation' (1997, p. 337). A final analytic tool assisting my analysis of data was attention to how speakers drew on and exchanged 'canonical narratives', or 'understandings of current consensus about what it is acceptable to say and do in their local and national cultures' in their interviews (Phoenix, 2013, p. 73, drawing on Bruner, 1990).

Using these tools, I worked between children's narratives, considering how these stories might work alongside one another in illuminating commonalities or differences experienced by particular children in relation to a thematic area of analysis. At this stage, I began to write up my analyses into three separate documents (which over time became Chapters Five to Seven of this study), structured around the research questions that had been refined through my thematic analysis. I found writing to be 'a rich and analytic process', enabling further conceptual development (Rapley, 2011, p. 286). One of the greatest challenges that I faced in writing up my analytic chapters was ensuring that I worked with children's data from across the sample and did not overly focus on particular children. In order to avoid this, I wrote out my research questions for particular chapters on a large sheet of card and wrote the pseudonyms of participants whose data I planned to use in particular sections and sub-sections

on post-it notes. I placed these notes alongside particular questions, and in this way, 'mapped out' my analytic chapters from the case examples I planned to include.

Across both phases of (thematic and narrative) analysis, opportunities to share and discuss analyses with other researchers were invaluable in shaping and refining my analyses and drawing my attention to the possibilities of other interpretations (Mauthner & Doucet, 2003; Squire, 2013). These opportunities arose through supervision meetings, sharing analyses with members of the FLE team and opportunities for collaborative work engendered through my membership of the NOVELLA node.

3.6: Summary

This chapter has presented the theoretical framework for the methodology and methods employed in this study, and illustrated how these have shaped how the study proceeded. The chapter outlines the distinctive value of a narrative approach to generating and analysing data for gaining insights into children's agency as knowing subjects and co-constructors of knowledge who exercise 'agentic choice' (Phoenix, 2013) in the stories they tell in and across research activities. It highlights the potential for a narrative approach to be used to analyse a range of data, drawing on empirical examples and theoretical developments in narrative research with children and others (Bell, 2013; Cele, 2013; Croghan et al., 2008; Groves et al., 2015; Luttrell, 2010). The chapter also alludes to the value of using a narrative approach in cross-national research to preserve the particularity and integrity of participants' narratives, or 'situated knowledges' of environment (Haraway, 1991; Riessman, 2011; Stoetzler & Yuval-Davies, 2002) and to shed light on the 'canonical narratives' of environment and environmental responsibility considered to be current in the situated contexts in which participants and researchers speak (Phoenix, 2013).

Having presented the theoretical framework for the narrative, multi-method and cross-national methodology employed in this study, the chapter provides a detailed account of how this methodology worked in practice through secondary

analysis and new data generation and analysis. The chapter makes clear the practical, ethical and theoretical decisions informing the development of this methodology across the various contexts included in the study, and how these decisions were undertaken in collaboration with other researchers. The detailed accounts of research practices included in the chapter are intended to serve as a form of 'epistemological accountability' (Mauthner and Doucet, 2003, p. 423) for the analyses presented over the next four chapters of this study. In Chapter Eight, I return to reflect on how different aspects of the methodology employed in this study have shaped the analyses presented and, more broadly, the possibilities for learning in this study.

Chapter Four: Children's narratives of environment in *Young Lives* data

In this chapter, I present secondary analyses generated through working with eight children's qualitative data that were collected in four communities across Andhra Pradesh between 2007 and 2010, as part of a broader programme of research for *Young Lives* (YL). Although overlapping with research interests of this study, the data presented in this chapter were neither primarily generated with 'the environment' as a principal area of enquiry, nor using a narrative methodology, and thus the analytic work presented is an example of what Heaton (2004) terms the 'reworking' of existing qualitative data to extend understandings of their theoretical contribution.

Young Lives is a mixed-method, policy-oriented research study concerned with investigating children's experiences of multi-dimensional poverty in changing political, physical, socio-economic and educational environments, with the overarching aim to 'improve understanding of the causes and consequences of childhood poverty and the role of policies in improving children's life chances' (Morrow & Crivello, 2015, p. 270). Although children's understandings of 'the environment' as an object of global concern are not a core research interest of the YL study, attention to children's experiences of the changing environments in which they live and to how children's everyday lives are situated in broader socio-environmental processes are embedded into this enquiry, as demonstrated in numerous YL discussion papers (see, for example, Boyden & Crivello, 2012; Morrow & Vennam, 2010; Vennam & Andharia, 2012). Children who participated in YL are furthermore, like others in this study, growing up in an age of global environmental concern and are likely to be exposed to contextually-situated messages about environmental concern and responsibility.

The two sections that follow explore the eight children's data for insights they offer into the changing affordances of children's environments over time and the environmental concerns that children expressed as part of their participation in research activities. Attention to these two areas enables me to critically reflect

on children's agency in negotiating environmental constraints in concluding this chapter.

In analysing children's narratives, or 'small stories' contained in the data, I have attended to how these were co-constructed between participants and researchers, whose exchanges produce new forms of 'situated knowledge' (Stoetzler & Yuval-Davis, 2002). Whilst this type of analysis involves close attention to context, potentially making secondary analysis more difficult, the collaboration between FLE and YL researchers (detailed in Chapter Three) has been invaluable in mitigating what Heaton terms 'the problem of not having been there' in secondary analysis (2004, p. 60). Detailed observations made by field researchers in their data gathering reports also served as valuable contextualising tools, and I refer to these where appropriate in the analyses presented below.

4.1: The affordances of children's environments over time

In this study I have drawn on Gibson's concept of environmental affordances as 'what [an environment] offers an [individual], what it provides or furnishes for good or ill' (1979, p. 127) to consider the dynamic relationship between children and their environments. As Chawla observes, the concept of affordances is a relational concept as it is mediated through '[individuals]' abilities to take advantage of the resources that the environment holds' (2007, p. 150). This relationship varies not only in accordance with the physical qualities of the environments but also in accordance with children's evolving capacities and societal norms relating to their embodied use of their environments. The longitudinal view of how children use and navigate their environments afforded by YL data is useful for understanding the changing dynamics of children's relationship to their environments over time.

Alongside children's varying school attendance over the period covered by the research activities (as captured in Table 3.1, in Chapter Three), all children in the sample, and particularly those living in rural areas, embedded references to household responsibilities into accounts of their everyday routines.

Responsibilities included getting firewood, water or everyday provisions as well as indoor tasks like sweeping, cleaning, cooking and looking after younger siblings. For five of the six children living in rural areas (with the exception of Vinay, whose father worked as a teacher with a wage paid directly by the Government), family livelihoods were at least partly dependent on agricultural activities, either on land owned or rented by the family or through work for local farmers. All of the rural children but Vinay were involved in some agricultural work during the four year period covered in this chapter, and they all spoke of how this enabled them to contribute to the family income.

Bhavana presented her work on the local groundnut harvest, which she was carrying out at the time of her Round Three interview, as enabling the family to *'meet the salt and chillies of the household'*, these being the most basic ingredients considered necessary to cook rice in a South Indian home. In his Round One interview, Ravi, who had left school at the age of 11 to work off a family debt accrued against a local farming family, described this undertaking as *'taking good care of family'*, particularly his mother. By her Round Three interview, Preethi (at age 15) explained how she was now old enough to have her name included on the family 'job card' for the Government National Rural Employment Guarantee Scheme (NREGS) and reported giving money earned during her school holidays to her parents for household repairs.²³ Like Ravi, Preethi framed her account of earning money as part of what it meant to be a competent and productive family member. Recalling this recent work, she reflected that *'I never worked so hard in my life but others had always worked hard and they commented about me. But this time I worked along with all of them and gave them my hard-earned earnings.'*

The changing economic circumstances of the family also led to changes in how the two children in Hyderabad spent time between different spaces making up their environments. Sania's ongoing attendance at school was called into question at various points across research activities due to reported financial difficulties experienced by her family, whilst Rahmatulla, whose father became

²³ The National Rural Employment Guarantee Scheme (NREGS) offers up to 100 days of manual labour per year to households outside of planting and harvesting seasons. Households are given a 'job card' that they may share between adult members (Government of Andhra Pradesh, 2013).

ill and whose eldest brother died unexpectedly over the course of the research, spoke in his Round Three interview of making his own decision (at around age 15) to leave school and work in a garment shop. He explained that this was in response to his awareness of the economic burden placed on his second oldest brother, the only family member working outside of the home: '*In the house, my brother was alone and I thought how long and much can he [do,] so I went to the shop. I talked and went*'. These children's stories corroborate Boyden and Crivello's observation made in relation to the broader sample of YL participants in Andhra Pradesh that 'overall, there is an expectation that children will share, rather than be shielded from, the burden of family difficulties' (2012, p. 176), and indicate how expectations for children to contribute economically to the household may increase as children get older.

Children's stories of their involvement in different types of work illuminate the changing ways in which they experienced the affordances of their environments. Mohan and his family lived in a drought-prone region where water for agricultural purposes was regulated by local authorities (according to a note added by the interviewer, this was available before six am and after nine pm). As the only son in the family, Mohan explained in his first interview that he had responsibility for going to the family-owned land at certain times of day to turn on the motor and irrigate the fields:

Mohan: [I] switch on the motor and pull the water to cover the fields. I need to take water from a canal and keep diverting to all sides to cover the fields. I have to do this very fast, water comes at high speed.²⁴

Mohan, 12, Round One interview, Telangana

At this first round of research, Mohan was attending school and he described the task of turning the water on at the family fields, which was structured around the government-regulated timings of water and electricity, as his main contribution to the family agricultural work. In her interview, Mohan's stepmother explained this relative lack of responsibility to Mohan being 'small', responding

²⁴ For the sake of consistency between this chapter and Chapters Five to Seven, I have marked all extracts from *Young Lives* transcripts in bold, to indicate that they present translated data.

to the interviewer's question about whether Mohan was involved in harvesting with a series of rhetorical questions:

We will cut the crop. Do you think he will do it? How does a small boy cut that? Is he not a small boy?

Stepmother of Mohan, Round One interview, Telangana

These rhetorical questions indicate associations between particular agricultural activities and the age or size of those who do this work, suggesting an understanding of the appropriateness of particular tasks for children, based on children's embodied and symbolic identities. Over the course of the research rounds, interviews with Mohan and other family members detailed his gradual accrual of responsibilities in work on the fields, in accordance with his growing physical stature and position as the only son in the family. In the year between the first and second rounds of research activities, part of the land owned by the family was taken by the government for a public irrigation project, and Mohan's stepmother explained how the family had used the money with which they had been compensated to invest in more land and two animals for Mohan, '*as he is the eldest son*'.²⁵

By his Round Three interview, Mohan explained that he had learned the skills necessary to prepare the land for agricultural activities:

Mohan: I know how to plough the land well.

Interviewer: Do you know how to plough, do you ride the plough?

Mohan: I plough all the land.

Interviewer: The bull cart, do you know how to ride?

Mohan: I know how to ride.

Interviewer: When did you learn that?

Mohan: I learnt it when I was going and coming with my father.

Mohan, 15, Round Three interview, Telangana

²⁵ Field researchers' reports detail how land owned by a number of families in the community (including Mohan's family) had been given over to government works over the previous year, including a canal irrigation project and the construction of a railway. Researchers report that affected families were given replacement land, but this was often 'dry' land which was harder to cultivate. Mohan's stepmother spoke about this in her interview, but Mohan did not speak directly about this.

In this interview, Mohan demonstrated his knowledge of work on the land, in collaboration with the interviewer who appeared to have some knowledge of this work and presented herself as sympathetic to the difficulties that Mohan described. This can be seen in Mohan's descriptions of ploughing:

Mohan: The farmer's job is easy, only ploughing the land is hard.

Interviewer: What is hard? The bulls pull the plough and you just hold and walk behind, isn't that it?

Mohan: When you are ploughing the land newly it is not so easy – the new land.

Interviewer: Is it hard to plough the new land?

Mohan: Yes, the land is very hard and the plough keeps jumping.

Interviewer: Does the plough jump?

Mohan: Yes

Interviewer: Then do you need to press and hold it, and your hands get hurt and swollen?

Mohan: Yes, they get swollen.

Interviewer: Has it happened to you like that any time?

Mohan: Once it has happened to me.

Mohan, 15, Round Three interview, Telangana

This co-constructed account of the physical strain placed on Mohan's body by the ploughing work continued as Mohan, prompted by the interviewer's questions, shared how the swelling of his hands the first time he ploughed the land led to his father having to feed him for some days. For Mohan, the process of learning to take advantage of the resources provided by his environment as he became older and physically stronger involved pain and difficulty as he attempted to draw out the positive affordances of the natural environment (its potential to produce a crop and support the family livelihood) through its negative affordances (the hard ground that places strain on the body as contact is made). It is not clear whether Mohan's descriptions of the 'new land' refer to land newly acquired by the family following the loss of their previous (irrigated) land, or if he is simply referring to the process of harvesting land newly. Either way, his accounts of agricultural work highlight how the physical qualities of the environment affect his embodied experiences of work on the land.

Other children with experience of outdoor work also embedded references to the physical difficulties involved in their interviews. Bhavana, who was engaged

in groundnut harvesting at the time of her Round Three interview, explained how she had got blisters on her hands as a result of starting a new kind of work and, like Mohan, she recounted experiencing difficulties eating as a result. In describing her experiences of daily wage work in relation to how the negative affordances of the outdoor environment, Preethi recalled how she had to abandon the work of digging a pit one day because *'the heat was unbearable'* and *'I couldn't do it'*. Sarada, who lived in the same community as Mohan, also spoke of the physical difficulties involved in outdoor work, which for her were compounded by a disability to her legs which she described as causing her increasing discomfort across the rounds of research. Although Sarada presented her family as understanding of her reduced capacities to complete cotton harvesting work around her studies (which, as she explained, was the case for many girls in her community),²⁶ in her three interviews she told a number of stories of her attempts to do this work, often recounting the physical strain this put on her body, as in the following extract:

We could not go to school when there was Telangana bundh [*a strike to support the Telangana state independence movement*] [so] I went to the farm [...] I worked in the farm and that night my leg hurt a lot. I did not sleep the whole night. All of my family felt very bad for me. They said that they shouldn't have let me work, and they told me to go to the school.

Sarada, 15, Round Three interview, Telangana

In this small story, Sarada describes the physical discomfort she felt following her attempts to work to explain her family's assessment that she should no longer engage in this work, despite their economic difficulties at the time (resulting from a lost crop and a loan taken to rebuild the family home after heavy rains had destroyed it). Her story underscores the relational nature of environmental affordances, showing how her disability causes her to experience her physical environment differently to her siblings and other family members.

²⁶ Field researchers' reports draw attention to a traditional belief held in this community that girls' involvement in harvesting cotton increases the crop; see also Morrow and Vennam (2010) for discussion of this.

In addition to their awareness of the potential economic gains to be made from the natural resources contained in their environments, children's accounts of everyday activities drew attention to other positive affordances of their environments, such as offering space for play, exploration and sociability. Although all children's accounts of everyday routines over the three rounds of the research suggested diminishing time for play in parallel with the increasing demands of studies, household work or work outside of the home, children often embedded references to play and leisure into their accounts of these activities, particularly where they involved unsupervised time outdoors. This could be seen in an interview with Rahmatulla, living in Hyderabad, who spoke in his Round Two interview of having more household responsibilities than had been the case the previous year:

Interviewer: You said you are growing and grown up to a certain extent. Is there anything, [with] which you are not happy?

Rahmatulla: Nothing, I will enjoy the work. And while going to get the provisions on [the] cycle I will give a ride to someone and have fun with him.

Rahmatulla, 13, Round Two interview, Hyderabad

Other boys embedded stories of meeting friends in their accounts of going to work outside of the home, suggesting this to be a chance for sociability as well as completing tasks for the household or, in some cases, earning money. Ravi, who had left school before the first round of research activities to pay off a loan for his family, was engaged in various seasonal work activities across the three rounds of research, including work in a stone quarry in a nearby town and planting and harvesting. His account of working on the groundnut harvest, which he was engaged in at the time of his Round Three interview, shows how the journey to and from this work enabled opportunities to spend time with friends:

Ravi: We become very enthusiastic and forge ahead. We become very competitive and rush to be the first one to go and work. And after the work is over we come back with the same spirit happily together. We feel very happy, madam.

Interviewer: Then what do you do on your way back while coming together?

Ravi: We keep talking heartily on our way back home. We talk this and that. Each keeps asking the other, 'look, man, how is life', 'how are things going on', and so on, madam.

Ravi, 15, Round Three interview, Rayalaseema

In continuation of this positive account, Ravi later spoke of his afternoons spent on the farm after the main harvesting work was done, presenting a favourable impression of the opportunities for 'roaming' involved in this work:

Ravi: I will be just roaming about nibbling raw ground nuts. I keep going here and there. There are hillocks around the farm and I sit and keep watching around and if there is anyone around I keep talking to them.

Ravi, 15, Round Three interview, Rayalaseema

In contrast to the boys' accounts of opportunities for exploration and fun amidst their work, girls' accounts of their everyday routines over the three rounds of research presented their lives as increasingly more supervised, with most activities (whether work, study or leisure) taking place indoors by later rounds. The relatively more limited spatial range considered to be appropriate for girls was often explained (by girls, their parents and interviewers) in relation to girls' attainment of puberty, and the changing ways in which they were regarded by the family and wider community following this (as discussed by Boyden & Crivello, 2012; Vennam & Komanduri, 2009). Whilst parents often spoke of communities as 'not good' for girls to be out and about in, girls also described feeling uncomfortable in outdoor spaces, particularly where there were no other girls of their age.

Bhavana, who was the only girl who was engaged in paid work outside of the home across the three rounds of research, explained how it was not usual in her community for girls of her age to be involved in the type of work (groundnut harvesting) that – like Ravi – she was undertaking at the time of the research. This understanding can perhaps be identified in the question posed by the interviewer in the extract below:

Interviewer: Girls of your age will be doing [daily wage] works?

Bhavana: They won't be doing.

Interviewer: They won't do. Are such girls there?

Bhavana: There are several girls, they live in better houses, they won't go for plucking of groundnut. They all remain at home.

Interviewer: What do they do by remaining at home?

Bhavana: Their parents feed them...What am I to say? [Names another YL participant] is there, she remains free, sometimes she goes to farm, she won't go to other works. I go because it is highly difficult condition in my house; I have to go wherever the work is available.

Interviewer: What do the girls of your age do during their free time?

Bhavana: Cleaning utensils, seeing TV...if electricity is not there, they sit outside their house.

Bhavana, 15, Round Three interview, Rayalaseema

In this exchange, Bhavana presents herself as relatively exceptional in her community as an unmarried adolescent girl involved in work outside of the home. The ways in which Bhavana described this work contrasted greatly with the accounts shared by Ravi of the sociability that this work enabled for him. Following the above exchange, Bhavana spoke of how, as the only female of her age present at the groundnut harvest, she drew little attention to herself: *'if somebody talks to me then, I will speak, otherwise I keep quiet'*. The difference in Ravi and Bhavana's narrated experiences highlights the gendered ways in which children's sense of security or wellbeing is mediated through how they perceive they are viewed by others in particular spaces.

As well as communicating her own family's 'difficult' situation, Bhavana's responses in the exchange above offer insights into the relatively limited spatial range of most girls' everyday environments in her community, reaching only to the outside of their homes or sometimes to their families' farms. At other points in the same interview, Bhavana told a number of stories to explain the reasons for girls staying within a limited spatial range, including the story of a girl who had reportedly been raped by a local teacher and a separate story of a local boy who, according to Bhavana, had been killed by other men in the village after he had been seen speaking to women outside their homes. Bhavana concluded this story – told in response to a question about why she had stopped visiting friends' homes at night – by explaining that *'Mother won't send [me] outside fearing things like that'*.

The gradual reduction of the spatial range of girls' environments as they grew into adolescence can be seen by looking longitudinally across girls' accounts of their everyday uses of space. Sania lived with her family in a predominantly Muslim-populated area in Hyderabad. In reconstructing her daily routine in her Round One interview, Sania described how she fitted playing with neighbours into her daily activities until her mother called her home:

Sania: After [Arabic tuition], I will go to neighbour's place.

Interviewer: You will visit every day?

Sania: Yes

Interviewer: Every day what do you do, do you play or just talk with her?

Sania: We play.

Interviewer: What do you play?

Sania: Hide and seek, catch me, hiding, running and catching one another.

[Following some further talk about play]

Interviewer: When do you return after playing?

Sania: By six 'o'clock I will return

Interviewer: Mother calls you or yourself will return?

Sania: Mother calls me.

Interviewer: Mother calls, if she doesn't then? Continue playing, isn't it?

Sania: Continue playing.

Sania, 12, Round One interview, Hyderabad

Sania appears to take pleasure in talking about her play here; however, her account shows how her play is temporally bounded between five and six o'clock, when her mother calls her home. In later rounds of research activities, Sania's accounts of her everyday routine no longer included references to outdoor play, but rather her use of outdoor space was neatly summed up by her mother as '*home to school, school to home*' in the following exchange:

Interviewer: Earlier [Sania] was going to her friends and all, does she do this now?

Mother: Now she does not, as we have a TV at home. So home to school, school to home.

Sania's mother, Round Two interview, Hyderabad

Taken alone, Sania's mother's reference to the television in her interview (an item that was not present at the first interview round) presents a causality that suggests that this positive change to the affordances of the home as a site of leisure has brought about the change in Sania's use of space; however, talk around this exchange offered further insights into the network of social and physical factors effecting this change. In her Round Three interview, Sania herself drew on the same causal logic in her initial response to the interviewer's question about why she preferred to spend more time at home than outdoors. Further questioning, however, led Sania to present the street as a gendered space where '*no girls come out*':

Interviewer: Why do you like staying at home, what is the reason?

Sania: There is TV at home.

Interviewer: You watch TV programs; you don't go out like before?

Sania: No, I don't go out.

Interviewer: Is there any reason why you do not go out?

Sania: I am grown up and no girls come out in the lane.

Interviewer: How is it in the lanes?

Sania: People will be working and men come to shops.

Sania, 15, Round Three interview, Hyderabad

Discussions carried out with boys in this community corroborated Sania and her mother's presentations of the streets as a gendered (and often dangerous) space:

Boys said that [in their community] boys tease the girls by going fast on the bike, setting the songs on mobiles loudly, increasing the speed so that noisy sound comes and beating the girls on the backside as they go past. One of the participants also referred to an incident that happened nearby one where a college guy drove fast and a young girl was struck and died. Because there are no speed brakes to arrest the speed it is happening.

Researchers' report of boys' mobility mapping activity, Round Two, Hyderabad

Sania's presentation of the street as a gendered space suggests an understanding that her presence in this space – or that of any other girl of her age – would be incongruous. Whilst Sania's narratives of play in earlier

research activities spoke of a desire to be outside, which was regulated by her mother, Sania's comments now suggest her own conformity with the gendered and generational understandings of appropriate use of space.

Other girls' narratives generated across research activities in the various research sites suggested small ways in which girls and those around them were challenging gendered understandings relating to their use of space. Sarada, living in rural Telangana, spoke of her determination to continue attending school, even amidst financial difficulties experienced by her family, ongoing suspicions from some community members about the appropriateness of girls' education and an often hazardous journey to school along a road where irregular bus provision meant that she sometimes had to get a lift on a motorbike and, on more than one occasion, had fallen off the bike on the uneven roads. Sarada voiced her determination in her Round Three interview as she concluded a story of how, following the elopement of a local girl with an older man outside of her caste, some villagers had stopped other local girls from attending school:

Sarada: I talked to my parents about it. I said that they cannot judge me on the basis of one girl's actions. I also told them I am not that kind of a girl and I will never do such a thing. I made it clear to them that even if they doubt me I am going to study till 10th class. So they agreed to let me study till 10th class. All of us girls talked about it. We thought it is not fair that because of her we have to stop school.

Sarada, 15, Round Three interview, Telangana

Sarada's response to this story, and the events that prompted its telling, show how cultural understandings relating to girls' use of space (including when travelling to school) are not static, but change with time and as individuals resist these. Notwithstanding such situated acts of resistance, in general stories shared by boys, girls and parents across the research activities considered here highlight a gendered distinction in children's possibilities for taking advantage of the resources and possibilities of their environments, which across communities appeared to become more sharply defined as children entered adolescence. Through the children's narratives shared above, this gendered distinction can be seen to intersect with other socio-structural factors, such as families'

changing economic circumstances, children's physical stature and the possibilities for education and employment in children's communities to mediate the changing ways in which children experienced their environments over time.

4.2: Children's expressed environmental concerns

Some of the ways in which children embedded concerns about their environments in the stories they told of their own or others' situated experiences in their environments can be seen in the interview and group activity extracts presented above, for example, in Mohan's talk of the land being difficult to work, in Sarada's talk of the irregularity of school bus provision, in Rahmatulla and other boys' talk of the lack of 'speed brakes' on roads around their homes in their group activities in Hyderabad, and children's and parents' stories of community tensions and dangers that made them feel unsafe or uncomfortable in particular spaces. Stories of danger, death and illness in children's narratives highlighted the environmental vulnerability experienced by children and families in the communities making up this sub-sample. Six of the eight children had at least one immediate or extended family member who had died from an illness, accident or unexplained cause, whilst children's references to ongoing illnesses experienced by family members, and to the deaths of peers and other community members highlight their awareness of potential dangers to their wellbeing in their environments.

Amidst this wider array of concerns, in this section I consider children's expressed environmental concerns as talk containing considerations of ways in which the physical and structural qualities of their environments might have a detrimental effect on the livelihoods, health or security of their families. Field researchers' reports of the homes and communities inhabited by children that accompany interview transcripts contain many of their own observations of environmental hazards (for example, stagnant water, exposed waste, overgrown bushes, broken wells, leaking water pipes or a lack of sanitation facilities). These reports, taken together with interview transcripts, shed light on the many environmental hazards that children did *not* speak of in research activities, perhaps due to their embeddedness in their everyday experiences.

Attending to where and how children articulated environmental concerns enables attention to be paid not only to the nature of the concern but also to what raising this concern may have achieved in the interview and to how children positioned themselves and others in relation to this concern. This attention enables greater consideration of children's assessments of their own and family members' agency to act in response to such forms of vulnerability.

Whilst the provenance of illnesses and accidents, sometimes with tragic consequences, was frequently unexplained in children's accounts of everyday life, invitations to evaluate changes taking place in their communities sometimes led children to raise concerns relating to the physical and structural qualities of their communities. Preethi, living in a tribal village in Coastal Andhra, spoke of how dirty water left in areas of communal washing in her village attracted mosquitoes, leading to fever:

Interviewer: Are there any changes in your village?

Preethi: Mostly we are unwell.

Interviewer: Unwell in the sense, do you mean health?

Preethi: Yes, health-wise.

Interviewer: What is going wrong then?

Preethi: The water remains stagnant. I mean dirty water. I mean people wash their utensils and there is a pool of water around all dirty and it breeds mosquitoes and mosquitoes bite them and they are prone to diseases [and] they get fever.

Interviewer: So such things are happening more now in your village and leading you to fever?

Preethi: On the top of it the rains. It has been raining heavily.

Preethi, 13, Round Two interview, Coastal Andhra

Preethi's articulation of concern, expressed in relation to the interviewer's open-ended question, demonstrates her awareness of how the structural environment (where water is used in communal spaces and little or no drainage appears to be provided), the climatic conditions (where seasonal rains may be heavy and stagnant water attracts mosquitoes) and the reproduction of everyday practices (the washing of utensils in a shared space) intersect to produce the conditions for fever to spread throughout the community. In this exchange, it is notable that Preethi leaves reference to the rains until after she has described the situation, perhaps suggesting an understanding that the rains are not the primary problem

but intersect with structural deficiencies to heighten the risk of getting fever. This followed a number of references shared over the course of the interview to her experiences of fever over the course of the previous year. By raising this concern in the context of a research project that sets out to improve understandings of the conditions of poverty in environments inhabited by children and their families, and to an interviewer who is part of a team that also interviewed local officials, including the village *sarpanch* (the main authority in the village), Preethi may be considered to exercise agency by drawing the research team's attention to a problem that could be minimised with greater structural investment.

Other children's articulations of similar concerns, however, drew attention to how interventions from local authorities could sometimes cause more harm than good. In group activities designed to elicit children's understandings of 'political economy' concerns in their local community, Rahmatulla and other boys living in Hyderabad are noted by researchers as expressing similar concerns to Preethi, that is, how stagnant water and heavy rains over the previous months had led to higher than usual prevalence of fever (in particular dengue fever and chikungunya). Having expressed this concern at in research activities in 2008, the boys again raised this two years later, and on this occasion were more critical about one possible cause of the problem, as noted by the researcher:

Participants expressed that when officials like MLA [Member of the Legislative Assembly] or a higher up official makes a visit to the locality, government staff clean the roads or lay the roads immediately and make the roads appear fine. Due to unplanned road works there is blockage of drainage leading to stagnation and at times overflow of drainage water. This is leading to increase in mosquitoes, which is prime cause for many fevers or spread of diseases.

*Researchers' report of boys' political economy activity, Round Three,
Hyderabad*

The boys' collective articulation of concern presented by the researcher highlights the confluence of physical and structural environmental factors (amongst them unplanned urban development, domestic use of water and heavy rains) in contributing to the unsanitary conditions that breed fever in their

community. Although it is unclear to what extent this presentation of the boys' articulation of concern has been influenced by the researcher's own understanding of the political context, by situating this articulation within an explicitly political commentary, the boys are here reported as making clear their awareness of the power structures at play in their community.

A concern raised by Ravi relating to the availability of water in his community in a drought-prone region in Rayalaseema likewise demonstrated a high degree of awareness of the local political situation in his community, whilst offering a further example of how the natural environment is conditioned by human interventions and practices. Ravi spoke of the increasing difficulties involved in fetching water for his family in his Round Three interview:

Interviewer: In these two years, are there any changes in your village? Has it changed or is it the same?

Ravi: A few houses have come up and there are taps for water, madam. There is water scarcity in the village. We have to walk a long distance to fetch water. Apart from this there are no other problems, madam.

Interviewer: What is this water problem, actually?

Ravi: The person whose job is to arrange for the supply of water doesn't do his job properly. Water is supplied once in three to four days.

Interviewer: You mean the water is released once in three or four days?

Ravi: Yes madam [after some further discussion about the system of pipes transporting the water] [...] Maybe after two or three days. Actually it is supplied as per that person's fancy, as per his moods. At times he gives excuses like the water pipe is broken or under repair, and so on.

Interviewer: And in what way are you put to inconvenience at home?

Ravi: We are forced to walk a long distance to fetch water, madam.

Ravi, 15, Round Three interview, Rayalaseema

Like Preethi's expressed concern about stagnant water, Ravi articulated this concern in direct response to a question about the changes he was aware of in his community, using this opportunity at the end of the interview to communicate this problem to the interviewer. Although he initially presents the problem as 'water scarcity', his elaboration of this presents a more complex situation; it is not that the water is not available (although, in a drought-prone

community it is likely to be in short supply at particular times of the year), but rather that it is mismanaged by the person responsible for regulating it. As a result, community members are *'forced to walk a long distance to fetch water'*. In the discussion that ensued, Ravi demonstrated his practical responses to this problem, explaining the further distance that he had to travel, the time it took to fill water canisters and the lesser timings of water availability. Ravi's account highlights his significant contribution to minimising the environmental vulnerability experienced by his household, in a situation of constraint caused by a confluence of climatic, structural and political factors.

As discussion continued, Ravi demonstrated political awareness as he elaborated on what he saw as the central problem:

Interviewer: From when are [the villagers] suffering?

Ravi: Right from the time he joined this job, madam. He was always doing like this, he would never release water properly. In the beginning my father was doing this job and at that time the water was supplied either daily or on alternative days. But this man will never do it.

Interviewer: Who? You mean the *sarpanch* [local political authority]?

Ravi: Yes madam, the *sarpanch* and the others are not at all bothered, madam. This water supply man is very close to the *sarpanch* and as such no one can take him to task.

Whilst continuing to locate the immediate source of the problem in the figure of the 'water supply man', Ravi here communicates the problem in explicitly political terms by invoking (in response to the interviewer's question) the authority of the *sarpanch* to explain why *'no one can take [the water supply man] to task'*. His awareness of the hierarchies of power framing community management is likely to have been influenced by his father having done this work previously. Ravi's detailed articulation of the problem offers a very clear insight into one way in which families (his own and others in the community) living in already vulnerable circumstances because of the physical climate they inhabit and their lack of purchasing power to install a private water supply are rendered more vulnerable by political mismanagement of this essential resource.

A somewhat different articulation of environmental concern is seen in Vinay's interview, as Vinay wove his awareness of planetary environmental degradation into his talk of his aspirations for the future:

Interviewer: How do you see your future?

Vinay: In the future I want to study well and bring change in this world. Now in this world every person is doing according to their wish and if their wishes are good we can see good society in the world. But now factories have been increased. There will be lot of pollution [and] due to pollution climatic conditions will change, the temperature will go on increasing and one day this earth will be destroyed. In the solar system, if we invent planets where we can send human beings and grow plants there, we can live happily without factories [and] it will be good. For this my parents are supporting me and I am expecting support from my teachers and the government also.

Interviewer: What kind of help [do] you want from the government?

Vinay: This is related to our country and our earth so if there are no other planets like earth to stay on, we should take some steps to preserve and protect our earth. So the government should educate people how to preserve earth and to plant trees. They should close some factories and grow plants. Then we can live happily.

Vinay, 13, Round Two interview, Coastal Andhra

The planetary scale of the problems Vinay expresses here sits in contrast to other children's articulations of environmental concerns seen in this chapter, which are more immediately situated in their everyday environments. Although Vinay may likewise experience pollution and other environmental hazards in immediate, embodied ways, his articulation of environmental concern here is constructed on popular and scientific knowledge of environmental problems. He presents the mobilisation of scientific knowledge as the best solution to environmental problems, using his scientific knowledge to present himself as a knowledgeable and engaged citizen and to imagine his role in constructing an alternative future to one framed by planetary destruction. Vinay's presentation, which sits within the context of research interviews (both his own and those of his father, a teacher in a local school) that were framed by an overarching narrative of educational pursuit and achievement, offers at least two iterations of the narrative that increased knowledge about environmental problems will lead people to enact pro-environmental changes, firstly through his own imagined

role as an agent of change, and secondly as he speaks of the government's role in *'educat[ing] people how to preserve the earth and plant trees'*.

Vinay's self-presentation as an agent of pro-environmental change is distinct to other children's self-presentations in their articulations of expressed environmental concerns, where, if they assigned an agentic role to themselves, this related more to their capacities for adaptive action (for example, Ravi's talk of going further to get water) than to being part of a wider solution to the problems they spoke of. Vinay's positioning of himself as part of the solution to climate change fits with the more theoretical and future-oriented nature of his talk, in contrast to other children whose environmental concerns were articulated through stories of lived experiences. This difference may in part be explained by the relatively less precarious socio-economic positioning of Vinay's family in the context of the wider sample, where their household income was not primarily dependent on agricultural work but on Vinay's father's wage as a teacher. The relative absence of talk from Vinay about his experiences of the kinds of immediate environmental concerns articulated by other children does not mean that he was not exposed to these, but may mean that they did not pose a threat to his everyday life or future aspirations to the same measure as that seen in the lives of other children in the YL sub-sample.

4.3: Discussion

The examples presented above offer a number of situated insights into the changing affordances of children's environments and children's expressed environmental concerns from data generated as part of a broader programme of mixed-methods work concerned with better understanding the causes and consequences of childhood poverty. Although not generated with 'the environment' as an overarching research interest, the data illustrate some of the ways in which forms of environmental vulnerability fit into the wider constraints experienced by children growing up in contexts of poverty, and show how children embedded situated environmental concerns into their narratives of everyday life. These contextually-situated understandings serve to decentre minority world perspectives on children's environmental experiences and understandings, and working with these data greatly aided my understandings

of these areas as I planned and undertook new data generation in Andhra Pradesh and England.

It has been seen across this chapter that even within a small, 'pro-poor' sample of children living within the same state, there is great variety in how children experience their environments, which can in part be mapped to their gender, household socio-economic status, generational positioning within the home and evolving physical stature, as well as the changing climatic, social and structural qualities of their environments. This supports the purposive construction of a more widely varying sample for the new data generation for this study. In *Young Lives* data, attention to relative variety in how children were affected by and responded to changing climatic, social and structural conditions is enhanced by the longitudinal nature of the study, which 'aim[s] to link individual biographies to trends in communities/countries and how these change over time, in ways that one-off visits cannot' (Morrow & Crivello, 2015, p. 271).

Using a case-based, narrative approach to analyse these data allows for consideration of how children negotiate agency amidst changing social and environmental constraints. It is important to note the considerable skill that children demonstrated in negotiating the intersecting physical and social constraints framing their environments, as their accounts of everyday life spoke of ways in which they adapted their everyday routines around the affordances of their environments (for example, the times of water and electricity availability; the physical demands of different kinds of work) and mobilised environmental knowledge gained through experiences of changing environments. Children's stories of adaptive actions taken in response to the affordances of their environments highlight the significant ways in which children's actions served – along with those of other family members – to minimise household vulnerability to environmental hazards, such as depleted water supplies, poor quality agricultural land and structural deficiencies of their homes. Many children, moreover, demonstrated their awareness of environmental problems by articulating concerns relating to these in the narratives of everyday life that they co-constructed with researchers, often showing a high degree of political understanding.

These children's stories illuminate the value of the close attention to children's responses to changing environments enabled through the YL research programme, which sets out to 'challenge dominant assumptions about children as passive recipients of social change, by exploring how children actively navigate their way through childhood' (Morrow and Crivello, 2015, p. 271). Examples presented above show how children's possibilities for 'active navigation' of the spaces of their everyday lives were mediated through generational and gendered understandings of the appropriateness of particular activities and of children's presence in particular spaces; however, overall they show children playing an active role in their homes and communities insofar as was possible.

With the exception of Vinay, none of the children in the YL sub-sample spoke of 'climate change', yet their talk shows sustained environmental knowledge, responsibility and concern. Children's articulations of environmental concern and the ways in which they positioned themselves in relation to (often, more powerful) others in expressing these concerns also offer insights into children's understandings of their own and others' agency in acting on environmental concerns.

Children's responses to shifting environments demonstrate a significant level of what may be considered as *reactive* agency – responding to changing environmental conditions through actions such as making the decision to go out to work at a time of household economic constraint, collectively resisting calls from villagers to stop attending school or walking further to get water and maintaining awareness of the political situation framing its availability. Overall, children's narratives offer fewer examples of what might be considered as *pro-active* agency, that is, actions framed not so much by immediate survival but by more temporally and spatially expansive concerns; the kind of agency that Vinay ascribes to himself in imagining how he might make a positive difference to the world. This observation is valuable for this study as it critically engages with presentations of children as agents of 'pro-environmental' change. Meanwhile, the rich, cross-national data generated for YL in contexts where environmental vulnerability is one manifestation of material and structural poverty offer great potential for further exploration of this substantive area.

Chapter Five: The affordances of children's everyday environments

This chapter, along with Chapters Six and Seven, draws on new data generated in India and England with the sample of children presented in Table 3.2 of Chapter Three. The chapter explores children's narratives of their everyday experiences in the different spaces making up their everyday lives, using the concept of environmental affordances (Gibson, 1979). Overall, the chapter considers the following question:

- How do children's narratives of everyday life generated in different contexts highlight the varied ways in which they are positioned in relation to different environmental concerns, and how might this variety affect their responses to such concerns?

Sub-sections making up Section 5.1 of this chapter consider the spatial and material properties of children's homes and the protections these homes afford from situated environmental hazards identified by children in close proximity to their homes. Section 5.2 considers children's narratives of outdoor spaces around their homes, attending to children's accounts of the socio-structural factors mediating their use of particular spaces and to children's narratives – or 'sensory stories' – of their routine journeys from home to school.

Across the chapter, I aim to show how the different activities comprising the research – individual and group interviews, taking photos, making maps and leading researchers on mobile interviews around their local area – supported insights into the affordances of children's environments. Where appropriate, I attend to my embodied experiences of spaces making up these environments where particular research activities took place, to consider how these experiences enhanced my understandings of the affordances of children's environments and my interpretations of narratives generated in these environments.

5.1: The affordances of children's homes

All children who took part in this research had at least one family home, where most research activities took place. The parents of two children (Helena and Callum, both living in rural England) were divorced and they lived between parents' homes. A number of children included the homes of grandparents or other family members on the cognitive maps they constructed with their families, showing these as places they considered to be part of their everyday life. Rosie, living in rural England, regularly slept at her school, an independent school with boarding facilities.

The size and structure of children's homes ranged greatly and included single or multi-storey houses, apartments and – for the poorest families in the Indian sample – one- or two-room structures constructed from bricks, palm branches or recycled construction materials. Children's homes also varied in terms of the outdoor space available in their immediate vicinity and what this space was used for. Some children had access to a private garden, whilst other children lived on housing estates or in apartments with shared outdoor play areas. A number of families in rural Andhra Pradesh kept animals in the spaces immediately around their homes as a source of livelihood, whilst most of the families living in rural areas in both countries had pets or kept animals – such as chickens – for domestic consumption. The material and spatial properties of children's homes are described in more detail in the case examples included across this chapter.



Image 5.1: Helena's photograph of her garden in rural England, showing her trampoline and the edge of her guinea pig enclosure.

The home as a form of protection from environmental hazards

Amongst the most basic affordances of a home is to provide a place of refuge from the outdoor environment and its potentially negative affordances. For some children in the sample, the home as a form of protection from environmental hazards was little discussed in the research and was perhaps taken for granted. Other children's narratives of everyday domestic life highlighted the basic affordance of the home as a fragile physical protection from such hazards. Children's varying exposures to hazards and the protections afforded by their homes illuminated differences in the natural environments inhabited by children across the sample (for example, climatic patterns and the wildlife that prosper in these climates), as well as how human management of the environment could exacerbate or mitigate household exposure to hazards.

Many of the hazards that children spoke of were exacerbated by seasonal weather conditions. Dharani, Chitra, Hemant and Chandrasekhar, living in a flood-prone region in rural Andhra Pradesh, recounted regular experiences of flooding in and around their homes during rainy seasons, and explained how their families would prepare for this by storing food and other valuable objects in secure places, by strengthening the structure of the home and by raising objects off the ground. A photograph taken by Dharani of the thatched roof inside her home (Image 5.2), which Dharani explained she had taken to show how homes in her village were '*different to homes in the city*', showed a number of household objects balanced on the beams supporting the roof. This visual depiction of the positioning of these objects supported Dharani and her family's verbal accounts of how they prepared for flooding.



Image 5.2: Dharani's photograph of the roof inside her home in rural Andhra Pradesh, showing objects positioned on the beams.

The four children living in rural Andhra Pradesh also spoke of how it became more difficult to get around during rainy seasons, meaning they spent more time at home. When I asked Chandrasekhar if he played cricket on the road outside his home during rainy seasons (an activity he spoke of enjoying at other times of year), he responded that *'The whole area turns into slushy mud. Feet would just sink into the mud if we try to walk. There will be [a] lot of pigs roaming.'* Instead, he explained that children gathered into the homes of those who had televisions to watch films during rainy seasons. For some children, however – including Chandrasekhar, whose previous home in the same village where his family were living at the time of the research had flooded and had to be abandoned – the physical structures of homes were fragile and could not always support the climatic conditions in which they were located.

Hemant, who lived with his parents and grandparents in rural Andhra Pradesh, gave an account of how his family had temporarily evacuated their home three years previously after flood waters had entered one night. Although their home was raised from the ground, Hemant explained how this had happened because the home was in a low-lying area. His account highlighted his awareness of the attendant hazards of flooding:

Catherine: OK, so you said that you had to leave the house, um, and spend some time outside during the flood. Can you tell me how you felt at the time, when you had to leave the house? (.) And you can say [it] in Telugu.

Hemant: Water was everywhere in the house. We went to another house in the night since there is a chance of snakes coming with flood water.

Madhavi: She is asking how you felt when you saw water all around.

Hemant: I felt scared.

Madhavi: Why?

Hemant: Snakes might come with the flood water.²⁷

Individual interview with Hemant, 12, rural Andhra Pradesh

According to Hemant's account, it is not the flood water but the threat of snakes that caused the family to evacuate the home. In an area with amongst the

²⁷ Here and in subsequent chapters, text in plain type denotes talk in English, whilst text in bold denotes talk translated from Telugu. See Table 3.4 for a full list of transcription conventions used in this study.

highest recorded fatalities from snake bites across India, this decision is understandable and proved to be well-founded as Hemant went on to relate that his grandfather, who stayed behind to guard the home, killed a snake in the family compound as the flood waters receded.²⁸

All four children living in rural Andhra Pradesh, as well as Reethika, who lived in a regional city bordering the rural area in which the research was carried out in Andhra Pradesh, recounted instances when they or their neighbours had encountered snakes in or around their homes whilst carrying out routine practices. Chitra explained how she was afraid to go to the toilet in the night, having once encountered a snake on the back of the bathroom door whilst other children spoke of encountering snakes in trees and overgrown areas, as in Reethika's account, presented below. Hemant's account shows his understanding of how the everyday threat to human life posed by snakes could be exacerbated by particular weather conditions affecting the physical environment of the home and surrounding area.

At another point in the same interview, Hemant spoke critically about the need to keep houses '*clean and neat*' in order to protect from environmental hazards such as snakes and rats. Following the flood, he spoke of how people had left homes around his own home abandoned, potentially exposing these and neighbouring homes to the threat of wild animals:

Hemant: And sometimes, uh, when uh, the houses are dead, their houses are being demolished and there are, um, so many rats and other animals. Um, and due to the rats, snakes will come.

Hemant's assessment, shared in the context of questions about how he felt the area around his home could be made better, indicates his awareness of how, in an area where snake, monkey and rabid dog attacks were relatively common (Hemant and other family members had personal experiences of all of these), the environmentally irresponsible actions of one household could create negative repercussions for another. This situated example highlights the

²⁸ For a report (2014) of snake fatalities in India highlighting high prevalence in Andhra Pradesh, see <http://www.thehindu.com/news/cities/Hyderabad/snakebite-deaths-highest-in-ap-telangana/article6401766.ece>.

environmental vulnerability underpinning Hemant and his family's everyday life and supports his argument, constructed across research activities, for the need to manage the natural world – insofar as possible – to minimise this vulnerability.

In a different context, Mamatha also presented an understanding of the negative environmental consequences of human practices in her review of the area around her home, located in an informal 'slum' community in Hyderabad.²⁹ In this review, Mamatha initially expressed how things had improved for her family after local authorities cleared rubbish from the park across the road from their home, commenting that '*earlier it was all dirty and [a] lot of mosquitoes existed and everyone fell ill*'. As the interview progressed, however, Mamatha spoke of the ongoing prevalence of mosquitoes in the area and recounted how she scolded local children for defecating in the park, based on her assessment that this practice attracted mosquitoes:

Mamatha: When children use it as toilet, I tell them to go away from there and do that at their home.

Madhavi: So you tell like that, when did you tell that?

Mamatha: When I was child, even now I tell.

Madhavi: Even now you tell occasionally (.) mmm (.)

[Madhavi translates this for Catherine]

Catherine: And what do the other children say?

Madhavi: What will they say, when you say like that, do they listen or tell you to go away?

Mamatha: Some say that 'is it your park, have you built it?' ('We haven't built, but mosquitoes will reach our home, and it will be dirty, that's why I am telling you to leave this place'. I say [it] in that way, then they leave (*faster*)).

Individual interview with Mamatha, 12, Hyderabad

Mamatha's justification for speaking out to the other children highlights her awareness, based on experience amassed over time, of the porous boundaries

²⁹ The area where Mamatha and her family lived was one of the many unofficial or 'un-notified' slums in Hyderabad. In Hyderabad, as in other Indian cities, official government 'notification' is necessary for communities to become eligible for 'slum-upgrading' schemes, meaning that many inhabitants of unsanitary areas are excluded from programmes designed to improve conditions for the urban poor (see discussions by Ghertner, 2011; Joshi, Fawcett, & Mannan, 2011). Mamatha and her parents spoke on a number of occasions about an attempt by the local government to 'clear' the slum around one year prior to the research, and related their decision – taken together with their neighbours – to rebuild their home, with the hope that over time, their community would be officially recognised.

between public and private space in her community, where the majority of homes were made from temporary materials and could be easily permeated by environmental hazards such as mosquitoes. Mamatha's talk of the impermanent structure of her home in the same interview further underscored its fragility to protect the family from other environmental hazards:

Madhavi: In winter does your family face any problems?

Mamatha: [It] happens

Madhavi: What are those and due to what?

Mamatha: (On that day when they demolished the huts, we built [our house] again steadily, [but] the rain pours through the holes, isn't it, and complete house gets wet. When it pours in the home, complete home gets wet and I sweep [the] whole house when it pours, sweep all the water out and my mother washes completely (*faster, speaking excitedly*)).

In describing the fragile structure of the home, Mamatha draws on the event of her home having been demolished around one year previously in an attempt apparently led by the Government to clear the informal 'slum' in which it was located. This event was described at length to the research team by Mamatha's parents, who explained how they had not wished to use stronger (and relatively more expensive) materials to rebuild the home for fear that it could be demolished again. The resulting fragility of the home in an already cramped and potentially hazardous environment was referenced at various points in the research by different family members. In one photograph taken by Mamatha, her mother could be seen rehangng the plastic sheeting over the entrance to the home following an unexpected downpour which had caused it to collapse (Image 5.3). This photograph, along with Mamatha's references to her and her mother's attempts to clear the home of water, illustrate the limitations of the home to protect from outdoor hazards and stand in contrast to other children's talk of the home as a place of respite from such hazards.



Image 5.3: Mamatha's photograph of her mother re-hanging the plastic sheeting over the entrance to their family home following an unexpected downpour.

Amongst the English research sample, children spoke relatively less of environmental hazards affecting their everyday household experiences. However, talk of environmental hazards affecting domestic practices was not entirely absent in children's narratives in England. As in India, children spoke of how weather patterns affected their mobility and possibilities for outdoor play, and most children explained how they spent more time indoors during winter. Kofi and Humphrey, both living in London, took part in the research following sustained media coverage of flooding in England in early 2014 and both boys referred briefly to this as part of their response to a question about what they understood by 'climate change' in their individual interviews.

Closer to home, Callum's talk of a recent storm highlighted the potentially fragile protection afforded by local homes, as he related the experiences of a school friend whose house had been damaged in the storm:

Callum: [*Name of another student*] was at his dad's and their roof fell in.

Catherine: Oh, wow.

Callum: But he escaped and took a picture of it on his phone.

Catherine: Ah.

Callum: He still, he still managed to make a joke about it though. He was like, 'oh look at my dad's – my dad's house is so awesome'.

Callum, 11, individual interview, rural England

Along with Kofi and Humphrey's references to media coverage of flooding, Callum's retelling of this event highlights how, as in India, homes in England are not impervious to environmental hazards but rely on human-constructed boundaries at risk of being overcome by natural forces. Amongst the stories told by children in the sample, it is nonetheless clear that children's exposures to situated environmental hazards vary greatly across the sample and in relation to the structure and location of homes. It is thus understandable that children's stories of the limitations of the home to protect from environmental hazards featured more centrally in the narratives of children who had experienced the fragility of their homes in relation to situated hazards in the environments in which they were located. Structural varieties can be further seen in how children narrated the spatial and material affordances of their homes.

Spatial and material affordances of children's homes

Children's everyday accounts of life in the home, constructed across research activities and sometimes together with other family members, offered rich descriptions of the varying affordances of homes for supporting everyday activities such as play, study, leisure activities and household chores. Photographs taken by children and other family members were particularly effective in depicting the spatial and material affordances of homes, whilst research visits to family homes allowed for first-hand experiences of some of these affordances.

Material objects populating the spaces used for research activities in some cases served as prompts for children's narratives of negotiations between family members over use of space in the home. One of the clearest examples of this was shared by Humphrey, living with his parents and sister in a three-storey home in London. Humphrey shared his enjoyment of building Lego structures at various points in the research. Having shown the researchers his current Lego project at the first research visit, he spoke in his individual interview of his frustration at other family members dismantling his projects without warning, and the as-yet unrealised promise made by his parents to create a separate space for him in the attic to engage in these projects without interruption:

Humphrey: I have to tidy my Lego a lot.

Hanan: Yeah.

Humphrey: Which is kind of annoying because (...) my parents said that I'd have a space in the attic for, to put all my Lego so I didn't have to keep moving it. But then people, people go trash my Lego like my sister who wanted to get the, the mattress out of that bed.

Hanan: Yes. We saw, yeah, because (.)

Humphrey: Yeah. And then she go, go trashes my Lego and I was like, 'you could have asked me to move it'.

Humphrey, 12, Individual interview, London

In addition to taking a photograph of a recently completed Lego project, Humphrey took a photograph (Image 5.4) of the attic space with his research camera, explaining that he had done so to depict the space that he hoped he would soon have to work on his Lego projects uninterrupted.



Image 5.4: Humphrey's photograph of the attic space that he said had been promised to him to use for his Lego projects.

In contrast, in homes with minimal space, children's accounts of everyday practices highlighted how family members had no option but to be physically close at home and to share spaces for multiple practices. In some homes in India, the research team witnessed this first-hand, as families created a space to complete the research activities amidst rolled up mats and blankets that would later be used to sleep on. Children's 'small stories' of everyday life offered insights into the layering of practices regularly taking place in small homes. Anand, living in a two-room home in Hyderabad, spoke of watching television quietly at night whilst his two younger siblings and parents, both construction workers, slept around him. Mamatha, whose home comprised one room separated by some sheets hanging from the ceiling, recounted how her parents would sometimes tell her and her brother *'to be proper'* as they engaged in imaginative play in the home, covering themselves with the blankets usually used for sleeping and *'playing like devils'* whilst her father and mother attempted to rest from their daily-wage work of (respectively) driving an auto-rickshaw and working on construction projects.

Whilst many of the routine activities that children embedded into their narratives of life at home were dependent on objects requiring electricity, temporary absences of an electricity supply in Andhra Pradesh, where power cuts are a daily occurrence at certain times of the year, could reduce the material affordances of the home. Some more affluent children lived in homes where private generators had been installed, yet in homes reliant on government-provided power, children and other family members spoke of adapting their everyday activities around scheduled government power cuts, known locally as 'load-shedding'. As a research team, we became increasingly aware of the load-shedding schedule, as temperatures began to reach over 40 degrees Celsius during fieldwork, and we tried to schedule visits to homes without generators outside of the 'load-shedding' schedule. Power cuts sometimes occurred during research activities, affording embodied insights into the discomfort to which families sharing small spaces in high temperatures are regularly subjected.

Children's accounts of power cuts illuminated ways in which they adapted their everyday activities in response to the resources available at particular times of

day. Nageshwar, who lived with his parents, sister and paternal grandparents in an apartment in a regional city in rural Andhra Pradesh, spoke in his individual interview of his enjoyment of making motor-powered cars and other objects with mechanical parts given to him by his grandfather. He recounted how he had used these on the previous day to make a hand-held fan, partly in response to the uncomfortable conditions created by an unexpected power cut:

Nageshwar: Yesterday, current [*electricity supply*] is not there – morning six to evening six, no current. It is very ('sweaty').

Catherine: Mmm.

Nageshwar: Then I made that.

Catherine: So [you made a fan? =

Madhavi: = Is it electronic] uh, fan, [or how it is? =

Nageshwar: = Ah, yes], madam.

Madhavi: OK.

Nageshwar: Motor, madam. **It works, sweat does not occur.**

Madhavi: (*Madhavi laughs*) Maybe that is useful for us then, in our summer here.

Catherine: (*Catherine laughs*) Yes, we could do with one of your motor fans!

Individual interview with Nageshwar, 12, regional city, Andhra Pradesh

Nageshwar's imaginative response to the power cut as narrated here was met in this instance with admiration by Madhavi and me. However, Nageshwar's talk across the interview highlighted other inconveniences presented by what he described as relatively frequent power cuts. One way that this affected his and other family members' domestic practices was by reducing the water available to them in the taps in their apartment, as the flow to these relied on a motorised system leading from a communal tank for the apartment block:

Catherine: OK, so we've talked about flooding and about the earthquake. Are you aware of their being any water shortage or drought in any parts of the region?

Nageshwar: If, uh, current power is not there, the tanks will be – in our house – that power is not ('functioning') morning 'til (*inaudible*).

Catherine: (.) So the tanks cut out?

Nageshwar: Yes. No water for us that day. Drinking water is there only.

Catherine: So how do you manage? What does your family do on those days when the water is not there?

Nageshwar: In meantime our buckets will be – two buckets will be filled with water. We'll manage like that. Washing with the drinking water.

Nageshwar's responses to my questions here shows one way in which 'big', or newsworthy, environmental issues like flooding and drought are lived out in the everyday, and understood through individuals' situated experiences of routine practices, calling into question the relevance of terms like 'big' or 'small' to describe environmental events. These responses also highlight the family's resourcefulness in using the drinking water they had delivered to their home each day for washing. This adaptive practice illuminates the family's relative position of privilege in the context of the sample in that the possibility of having separate drinking water delivered was financially unattainable for other families. Other families' accounts in drought-prone areas or areas where electricity cuts were frequent in India highlighted different scales of adaptations to resource constraints, for example, searching for firewood for heating, 'borrowing' water from a neighbour or extended family member or travelling to more distant public water taps. The absence of such stories amongst children in England and more affluent children in India once again highlights how the differing material and structural affordances of children's homes and communities shaped the varying ways that children across the sample experienced their environments.

Material objects and virtual expansions of domestic spaces

A number of children embedded references to technological objects (such as iPads, mobile phones, television sets and computers) facilitating virtual activities into how they constructed their routines of everyday life at home in research activities. Whilst these objects (and, in some cases, the energy supply required to power them) were financially unattainable for some children, the narratives of those who could afford them illuminated the ways in which they expanded the leisure possibilities afforded by the home and compressed physical distances between children's homes and spaces beyond these.

Rosie, who expressed frustration at living far from friends in her village in rural England, spoke of using her iPad to communicate with friends, explaining that her parents had purchased this for her to help maintain friendships after they had moved back to England after around ten years of living overseas. As well as enabling the maintenance of overseas friendships, Rosie talked about using

her iPad to communicate with her new school friends across a shorter, but still significant, distance:

Rosie: We do Facetime together – that’s how sad we are – we Facetime each other from our house, and it’s the weekend. And we're going to see each other the next day (*Rosie laughs*).

Rosie, 12, mobile interview, rural England

Amongst the multiple affordances of the iPad, in this extract Rosie emphasises the way it enables continuation of her school-based social life within the physical space of her home, compressing the affordances of the two spaces (Harvey, 1989).

Technological objects supporting an expanded range of leisure opportunities also appeared to have particular significance for children in socially isolated or materially deprived areas. Chitra, living in rural Andhra Pradesh, explained her enjoyment of watching television at home in relation to having few friends and leisure possibilities in the area immediately around her home, whilst Tamsin, living in an outer London borough, described how she preferred to stay at home and use her iPad than go to the local park because the park was lacking in resources and contained rubbish. Material objects supporting virtual leisure possibilities also appeared to increase in significance for some children as favourite play spaces became inaccessible in bad weather, as seen in Chandrasekhar’s reference to watching films in friends’ homes when it was too muddy to play cricket. Nonetheless, although energy-intensive virtual activities are sometimes presented in tension with children’s enjoyment of the affordances of the ‘natural’ environment in literature on children’s diminishing use of outdoor space (as pointed out by Moss, 2012), many children in the sample spoke of engaging in virtual play in addition to, rather than instead of, outdoor play, as seen in examples below.

Photographs taken by Amrutha and her family, living in a gated community in Hyderabad, showed the co-existence of virtual and outdoor leisure activities. The family depicted the multiple affordances of the gated community for outdoor

leisure activities such as swimming, basketball and tennis in their photographs, as well as on their cognitive map, constructed by all family members at the first research visit (Image 5.5). Following the construction of this map, Amrutha's father Vijay reflected – with apparent pleasure - on the way that it showed that *'90% of [our] lives are in the community'*. The immediate availability of leisure facilities appeared to be an important part of the appeal of life in the gated community for the family, and for Amrutha's parents in particular, who endorsed the safety and the opportunities for play and sociability it offered. During the mobile interview where Amrutha, her mother and sister showed various outdoor leisure facilities to the research team, Amrutha's mother described the community as *'like a mini-Disneyland'*.

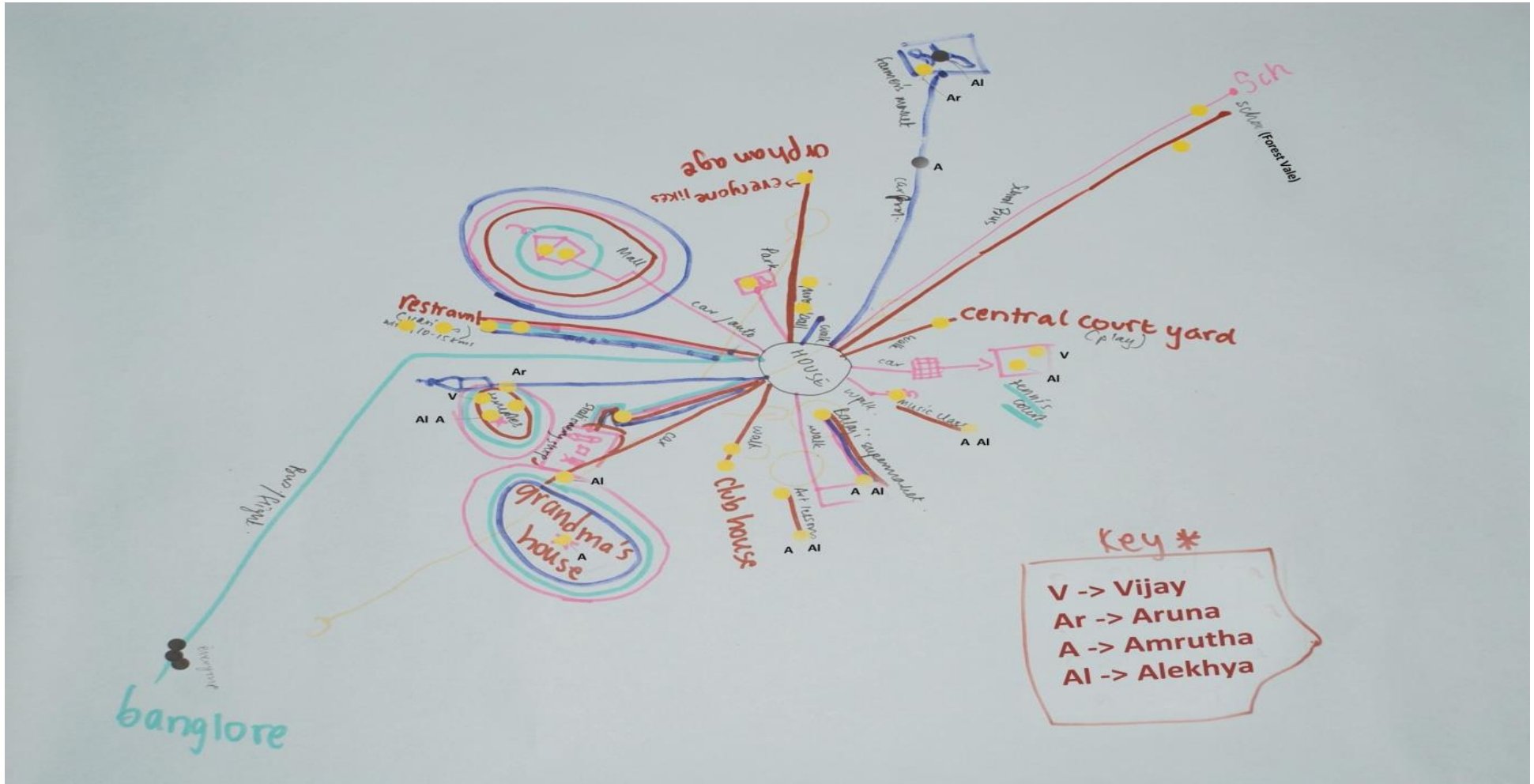


Image 5.5: Amrutha's family's map depicting places making up their everyday lives in Hyderabad, including numerous places within the gated community where they lived.

Amidst the photographs of outdoor leisure activities and domestic chores taken by Amrutha and other family members on their research cameras, one photograph of Amrutha using a computer, which Amrutha had asked her sister to take for the research, led to a lively discussion between family members as they worked together to select three photographs to represent their everyday family life in the final research activity carried out with the family. Across this discussion, Amrutha and her sister Alekhya gradually convinced their parents away from their initial assessment that the computer photograph represented a marginal activity, as seen in the extract below:

Aruna [*mother*]: Actually this place is not just for Amrutha. [Alekhya also does a lot of, uh =
Amrutha: = It's for all of us =
Vijay [*father*]: = Project work], [uuuuuh (.) =
Alekhya: = Barbie games!]
Vijay: Barbie games.
Alekhya: YouTube!
Vijay: YouTube.
Alekhya: Google!
(*Researchers laugh*)
Vijay: [Google =
Amrutha: = Email], [Facebook =
Aruna: = And even I] uh, browse. And even Vijay does some work [over there =
Amrutha: = A lot of work].
Aruna: So (.) that computer corner is for everybody.
Vijay: Yeah.
Natasha: Mhmm, mmhmm.
Vijay: So, yeah, the more I think about it, yes it does play a big part, so (.)

*Amrutha, 12, family photo discussion, Hyderabad*³⁰

Although requiring some discussion to reach this agreement, without Amrutha's photograph the multiple affordances of the computer, collectively listed by family members in the extract above, may not have featured in how her family represented their everyday life. This highlights the value of multiple research activities for offering different insights into family life, as well as of photo

³⁰ Here, the transcription conventions go some way towards showing the liveliness of this discussion by showing how family members spoke over one another in their haste to speak (as indicated in speech marked by square brackets and equals signs; see transcription conventions in Table 3.4). The reduction of this lively discussion to text, however, demonstrates Duranti's point that transcripts are mere representations of experiences, akin to Plato's 'shadows on a wall' (Duranti, 2009).

elicitation methods in particular for elucidating the everyday affordances of material objects (Croghan et al., 2008; Harper, 2002; Luttrell, 2010).

The co-existence of virtual and outdoor leisure activities depicted across research activities with Amrutha's family was also seen in Kofi's account of playing on his PlayStation, prompted by a photograph he had taken of his PlayStation screen. Kofi, who lived with his mother, brother and sister in a privately owned flat on a housing estate in London, presented playing on the PlayStation as his favourite weekend leisure activity but explained how he would intersperse this with other activities: *'[I] go on it one hour, turn off, one hour, turn off, one hour, turn off.'* He also spoke of how playing football on the PlayStation was seasonally interspersed with playing football outdoors during the summer. His photograph illustrates the juxtaposition of the physical space of the home and the virtual space of the World Cup football match depicted on the PlayStation screen. The photograph is almost entirely dark except for the screen, positioned a few metres away from Kofi and showing football players lining up for play. A plastic chair, just visible to the left of the screen, locates the domestic space where Kofi is playing. The photograph highlights the spatial expansions that the PlayStation affords directly from Kofi's home (Lee, 2001b; Oswell, 2013).

Callum, living in rural England, directly challenged the apparent binary between children's use of technology and of outdoor spaces in his participation in research activities. At various points across research activities, Callum either referred to or actively demonstrated playing the popular virtual game *Minecraft* on his mobile phone, however, his accounts of everyday life also included quintessential stories of rural childhood, such as climbing (and falling out of) a tree, having a water fight and sledging with his neighbours. In building an argument in his individual interview for why *'kids don't go out as much anymore'* as part of his response to the question of how he felt his local area had changed, Callum considered children's growing use of technology as one of a number of possible causes for children's diminishing time outdoors:

Callum: Because, like, when there was like hardly any technology, like ev – live every kid was out and about. But today, because there's so many, like, games, Xboxessss, and everything (*takes a deep breath*). And also because, like (.) people are getting more and more concerned about robbery, so they're, like, closing their land off.

Catherine: Hmm. Hmm.

Callum: From the rest of the world, kids don't go out as much anymore.

Catherine: Hmm.

Callum: Because if kids [sic] kept their land open and the roads were as safe as they were, um, like (...) I would definitely be out and about.

Callum, 11, individual interview, rural England

Although technology features in this list, Callum's consideration of the numerous causes for children's diminishing use of outdoor space in this extract, grounded in his embodied experiences of the space around his home, offer a more nuanced perspective on the simplistic binary between technology and nature, whilst making important points about children's access to safe public spaces for outdoor play.

In summary, whilst not all children in the sample had access to objects enabling virtual expansions on the spaces of the home, where these were available they extended the spatial and material possibilities of homes and thus provided an important platform for some children to learn about and engage with the world, as explored in the growing literature on children's online practices and subjectivities (see, for example, Berriman & Thomson, 2014; Brooks et al., 2015; Sclater & Lally, 2013). Overall, children's narratives of domestic life presented across the above three sub-sections highlight the highly uneven material, spatial and virtual affordances of children's homes and the environments in which homes were located.

5.2: The affordances of children's outdoor environments

Alongside variety in the homes inhabited by children in the sample, children's narratives across the sample illuminated variety in the availability of outdoor spaces for play and other activities. In both countries, children living in rural areas appeared to have a greater range of spaces where they could potentially spend time outside than their urban counterparts, although multiple factors

beyond the availability of spaces determined children's use of these. In rural England, Callum, Helena and Rosie all had gardens where they kept pets, as well as fields around their homes that they spoke of using for play or dog walks. Hemant and Chitra, who attended the same fee-paying school in rural Andhra Pradesh, were part of families whose main livelihood was agriculture, and in their school group activity they and their peers spoke in affective terms of their enjoyment of visiting the fields that their families owned or rented. Photographs taken by Hemant of a trip to the fields with his research camera depict him engaging in activities such as climbing hay bales and sharing his bicycle with friends. He asked a friend to take a photograph of him with his favourite tree, explaining that he liked the tree because it *'provides so much shade and oxygen'* (Image 5.6).



Image 5.6: Hemant's photograph, showing him under his favourite tree at his family's fields.

Amongst children living in urban areas in the two countries, Humphrey had a private garden whilst Kofi, Amrutha and Reethika had access to communal leisure spaces for residents of their apartment blocks or housing estates. Children in urban areas also spoke of playing in local parks, friends' gardens or in the basements of their apartment buildings, particularly during times of bad weather.

Factors mediating children's use of outdoor spaces

In keeping with a cross-national review of research into children's independent mobility by Malone (2011), most children in the sample recalled parental regulations in explaining the boundaries of their independent mobility around their homes. These boundaries varied in spatial range in accordance with the physical location of homes and parents' and children's assessments of children's capabilities of navigating situated risks around homes. For some children, boundaries were physically imposed, for example, the nearby road for Gomathi and Callum; the perimeter of the gated community for Amrutha; or, for Reethika, a decorative archway separating her community from the main road, which she pointed out during the mobile interview.

Gomathi, who lived with her parents and brother in an apartment in a part of Hyderabad with a high volume of traffic, spoke of how she could not cross the road in front of the apartment block alone, explaining '*My mother said the traffic jam is there, and don't go there, don't cross the road.*' With limited independent mobility beyond the immediate vicinity of her apartment block, the basement and its affordances for play featured significantly in Gomathi's photographs taken for the research. In particular, a set of swings next to the carpark – an indication of the basement space having been adapted to afford play as well as storage for vehicles – featured in three photographs depicting Gomathi's friendship group drawn from neighbouring apartments.



Image 5.7: Gomathi's photograph, showing her and a friend on the swings in the basement of their apartment block, which also served as a carpark.

In the mobile interview carried out with Gomathi and her mother, our experience of setting out in single file along the uneven space at the edge of the road (which, like most roads in central Hyderabad, had no pavement) and the difficulties entailed in crossing the road amidst multiple vehicles afforded first-hand understanding of the risks presented to pedestrians (children and otherwise) by vehicles. The hazards presented by large volumes of traffic were also discussed by Gomathi and her friends in their school group activity as they spoke of having seen traffic accidents on their journeys to school and conveyed their dislike of getting stuck in traffic jams and of '*noise pollution*' on their journeys. Rahul, who took part in the same school activity as Gomathi and who spoke of getting headaches on bus journeys between home and school in various research activities, attempted to sum up the children's frustrations about traffic in the city with the comment that '*there is so much traffic and the roads are so small*'.

In contrast to how Gomathi presented the road outside her home as a fixed boundary, the 'boundaries' of other children's independent mobility in the areas around their homes appeared to be more fluidly negotiated in relation to time of day, adult accompaniment and children's own judgements about particular spaces. This was seen in Humphrey's response to a question about 'out of bounds' spaces around his home in London:

Humphrey: Some places I just don't go unless I have a friend, but they're not, like, 'out of bounds'. There's nowhere in particular. It's like I don't really go like round the back of the tower in the dark (.)

Hanan: Mmhmm.

Humphrey: I only really go there in the daytime because it's kind of (...) it's a bit dodgy behind there. I don't really, I don't really like going behind there in the dark. But, like, I mean, apart from that there's (...) nowhere particularly that I, I don't go (...) with my parents.

Humphrey, 12, individual interview, London

As well as recalling parental regulations in explaining their use of space around their homes, children drew on their own emotional and embodied experiences, and on stories they had been told about particular spaces, to construct narratives that highlighted the sense of (in)security or (dis)comfort they felt in

these spaces. In addition to the problem of mosquitoes in the park across the road from her home in Hyderabad (as discussed in Section 5.1), Mamatha explained how she tended not to visit the park as older children played cricket there. Although she did not expand on this, this brief reference alluded to the intra-generational division of spaces in Mamatha's community, where Mamatha herself spoke of playing with neighbours and her younger brother on the road immediately next to their home. The intra-generational use of public spaces in her village in rural England was also briefly alluded to by Helena, who on her mobile interview (which took place on her usual walk from school to home) explained how she avoided walking through a particular park on this journey because *'there are older kids from my school there'*. The two girls' brief references allude to the embodied ways in which children become aware of their own positioning in public spaces, in relation to others around them. Although neither girl drew on her gender to explain this, their comments fit with a trend across the sample of more boys than girls speaking of using parks with peers, which may suggest an implicit 'gendering' of these spaces.

Some children recalled previous experiences of an environmental hazard encountered in a particular space to explain why they had moderated their use of this space. Hemant, who explained in his individual interview how he had been bitten by a rabid dog as a young child, spoke of avoiding a particular area within his village in rural Andhra Pradesh because *'mad dogs will be there'*. That rabid dogs remained a hazard in Hemant's village was highlighted whilst completing the mobile interview, as villagers warned the research team that a child had been bitten by a dog that afternoon. Most of the children in rural Andhra Pradesh recounted experiences of seeing poisonous snakes whilst playing outside, especially around trees and spaces with a lot of foliage. Chandrasekhar identified a particular area that he avoided around his home, explaining that *'my friends told me that they saw a big snake in that area. That's why I don't go there'*.

Reethika, living in an apartment block on the outskirts of a regional city in Andhra Pradesh, told a 'small story' of how she and her friends had encountered a snake in the private park immediately next to their apartment

block when explaining places that she was not allowed to go to around her house:

Reethika: Within our house there's, um, there are some ('grounds'), those are not uh (.) they ask us not to go there. There'll be some snakes.

Catherine: Have you ever seen a snake?

Reethika: Yes

Catherine: Yes? (.) Where was that?

Reethika: In the park next to my house (...) I was just entering into the park then, um, all the – all are playing there. I was just going into the park, then uh (.) I saw a snake. In the park all are running out, then I saw it.

Catherine: Mmm, so you came running out [as well =

Reethika: = Yes]

Reethika, 12, individual interview, regional city, Andhra Pradesh

In this extract, Reethika's story of seeing a snake substantiates the warnings she recounts having been given. Unlike Chandrasekhar, who described subsequent avoidance of the place where his friend had seen the snake, Reethika went on to explain how she did not avoid playing in the park but avoided the areas with bushes around its edges, depicted in a photograph taken by Reethika from the balcony of her apartment, which overlooked the park (Image 5.8).



Image 5.8: Reethika's photograph of the private park next to her apartment block where she had encountered a snake.

Reethika's decision to play in the park but not close to the bushes shows a calculated risk, taken in response to the warnings she had been given, her previous experience and her observations of the changes occurring in the physical space around her. This challenges what Murray and Mand refer to as 'children's supposed lack of rationality in response to mobile space' (2013, p. 73). Reethika's monitoring of this risk was exemplified later in the interview as she expressed concern that the bushes were growing back, intensifying the risk of encountering another snake. Whilst Reethika's story speaks of the very real risk of snakes posed to her and other children by playing in the park, the partial minimisation of this risk can be understood through considering her photograph of the park, presented above. This photograph shows a contrast between the managed space of the private park and the largely overgrown areas outside of its walls. This contrast resonates with other children's concerns (such as those expressed by Hemant and Chandrasekhar in sections above) about encountering snakes and other wild animals, where these children did not have access to privately managed spaces in which to play.

Another calculated risk was shared by Callum, who spoke of continuing to play in the fields around his home in rural England despite a friend having been shot in the leg when taking a shortcut across a farmer's field:

Callum: Because the field was here and they had to go round all those fields to get home. (But he went straight over the field, and just as he was, um, going over the gate, um, turnstile, because there was a stile there (*faster*)) – Oh, no, it was a bit blocked off, so he had to crawl through the dog bit –

Catherine: Hmm.

Callum: (He got shot in the leg (*faster*)).

Callum, 11, individual interview, rural England

Callum told this story as an example of the risks involved in outdoor play, part of his extended explanation of why '*kids don't go out anymore*' (presented above). Having told this story once, he embedded reference to '*farmers closing off their land*' and '*children getting shot*' into various research activities, suggesting that this memorable experience had shaped his understanding of the fields as a space presenting particular risks, as well as affordances, for play. Callum's

friend's story moreover serves as a caution against idealised understandings of rural areas as spaces for children's free play (see Jones, 2007; Tyrrell & Harmer, 2015).

This section offers situated examples of how the differing physical and social qualities of the outdoor environments inhabited by children across the sample impact on children's independent mobility. Although little discussed across the section, children's varying use of outdoor spaces across the sample may also be understood in relation to varying demands on their time from activities such as schoolwork, household responsibilities, indoor leisure opportunities and extra-curricular activities, which ten children in the sample – including five out of six children in England – spoke of regularly attending.

In addition to negotiations with family members, decisions over children's use of outdoor spaces highlights their own calculated assessments of the affordances of different spaces, based on embodied experiences as well as stories told about these spaces. This shows children's capacities to make their own decisions over their use of space, sometimes in the context of avoiding particular environmental hazards.

Children's sensory stories of their journeys to school

This section considers children's narratives – or 'sensory stories' – constructed verbally and visually through a mapping activity carried out in school group discussions, where children represented significant places that they passed through on their journeys.³¹ The value of methods such as mapping and mobile interviews to generate insights into the sensory ways in which individuals experience their environments is noted by Sheller and Urry, who write of the body as 'an affective vehicle through which we sense place and movement' (2006, p. 216).

Across the sample, children's journeys varied in duration from five minutes to one hour, with 18 kilometres as the maximum distance travelled. Modes of

³¹ It was not possible to carry out research activities in schools in London, although other research activities afforded insights into children's journeys to school in London.

transport used included walking, cycling, public or private buses, shared auto-rickshaws or a family-owned motorbike or car. Of the eighteen children who took part in all research activities, twelve (including five out of six children in England) had access to a form of motorised transport owned by a resident family member. A school bus was provided by the four fee-paying schools in India (and factored into the fee structure) but was not available at either of the government schools. In rural England, school bus provision was available at both the state and independent schools visited, whilst school buses were not provided at any of the schools attended by children in London.

Children's descriptions of their journeys bore witness in various ways to how spaces and objects are experienced differently at certain times of the year, for example, how seasonal climates affect the surface of the road, causing it to become hot, icy or muddy. Chandrasekhar and Dharani, attending a government school around 1-2km from their homes in rural Andhra Pradesh, talked about having to walk rather than cycle to school in rainy season as the roads became too muddy to navigate by bicycle. Children travelling on winding country lanes in rural England talked about the road becoming icy during the winter, and Oliver (who took part in a group activity in Rosie's independent school in rural England) showed a bend where the family car had come off the road during an icy period in the previous winter, marking this with a black sticker as a 'dislike' on his map.³²

The different feel of the road surface and its impact for getting around was viscerally evoked by Mamatha, who walked to her government school in Hyderabad, as she described what it felt like to walk with bare feet on the hot ground in the summer:

Mamatha: My Daddy got slippers for everyone and as there was a lack of money, [he] did not purchase for me, for me only due to lack of money he said he will get it later.

Madhavi: Mmm

Mamatha: For three days [he] did not purchase, I had very burnt feet.

Madhavi: Where did you go in summer?

³² In this activity, children marked particular 'likes' or 'dislikes' on their maps with yellow or black stickers. See Chapter Three and the research protocols in Appendix Four for further details.

Mamatha: I was going to school

Mamatha, 12, individual interview, Hyderabad

Children also evoked the sense of touch through the feeling of cool or hot air, something that may have been influenced by the time of year when the activity was conducted. Nagendra, who, along with peers, completed the mapping activity amidst temperatures of up to 40 degrees Celsius in the approach to summer in rural Andhra Pradesh, spoke of enjoying the cool breeze at the bus stop where he waited to catch the bus to school, and marked this as a 'like' on his map:

Madhavi: Is this the bus stand?

Nagendra: There it is sufficient, teacher.

Madhavi: What do you mean by ['sufficient'? =

Nagendra: = The atmosphere], teacher. Atmosphere only.

Madhavi: Umm.

Nagendra: We get cool breeze in the mornings.

Nagendra, 12, private school group activity, rural Andhra Pradesh

In contrast, Callum and the other children in the rural English sample completed the mapping activity in December. Mapping his journey from home to school in rural England, involving a walk down the road, a short wait at the bus stop and a 40 minute bus ride, Callum used the coloured stickers on his map to show his mixed feelings about being outside in the cold:

Callum: I've put a black dot [*signifying dislike*] where I walk because it's cold. But I've put a yellow dot [*signifying like*] next to it where the bus goes because there's, like (.) it looks nice and um (.)

Catherine: That's the countryside around it looks nice?

Callum: Yeah. Yeah. Because I go when like the sun's just coming up (...) I also don't like my bus stop as well as liking it.

Jack: [*another participant*] Why not?

Callum: Because it's like – like (*inaudible*) but then, like, the wind can get round really easily because it's really thin. So I get really cold. And also I'm normally waiting for absolutely ages.

Callum, 11, state school group activity, rural England



Image 5.9: Callum's photograph of the road next to his home, which he walked alongside each day to get his school bus.

Callum's allusion to the countryside around his home looking nice at sunrise exemplifies the affective responses related by children to spaces travelled through on their journeys to school. Children spoke of how they encountered favourite objects in multi-sensory ways, as seen in Amy's description of a favourite tree, which she included on her map of her journey to school (Image 5.10):

Amy: I've always liked this cherry tree (.)

Catherine: Ah.

Amy: (In the summer when it blossomed it smelled nice (*quicker*)). Cause – and then sometimes one would fall down and you'd get to catch it.

Amy, 11, state school group activity, rural England

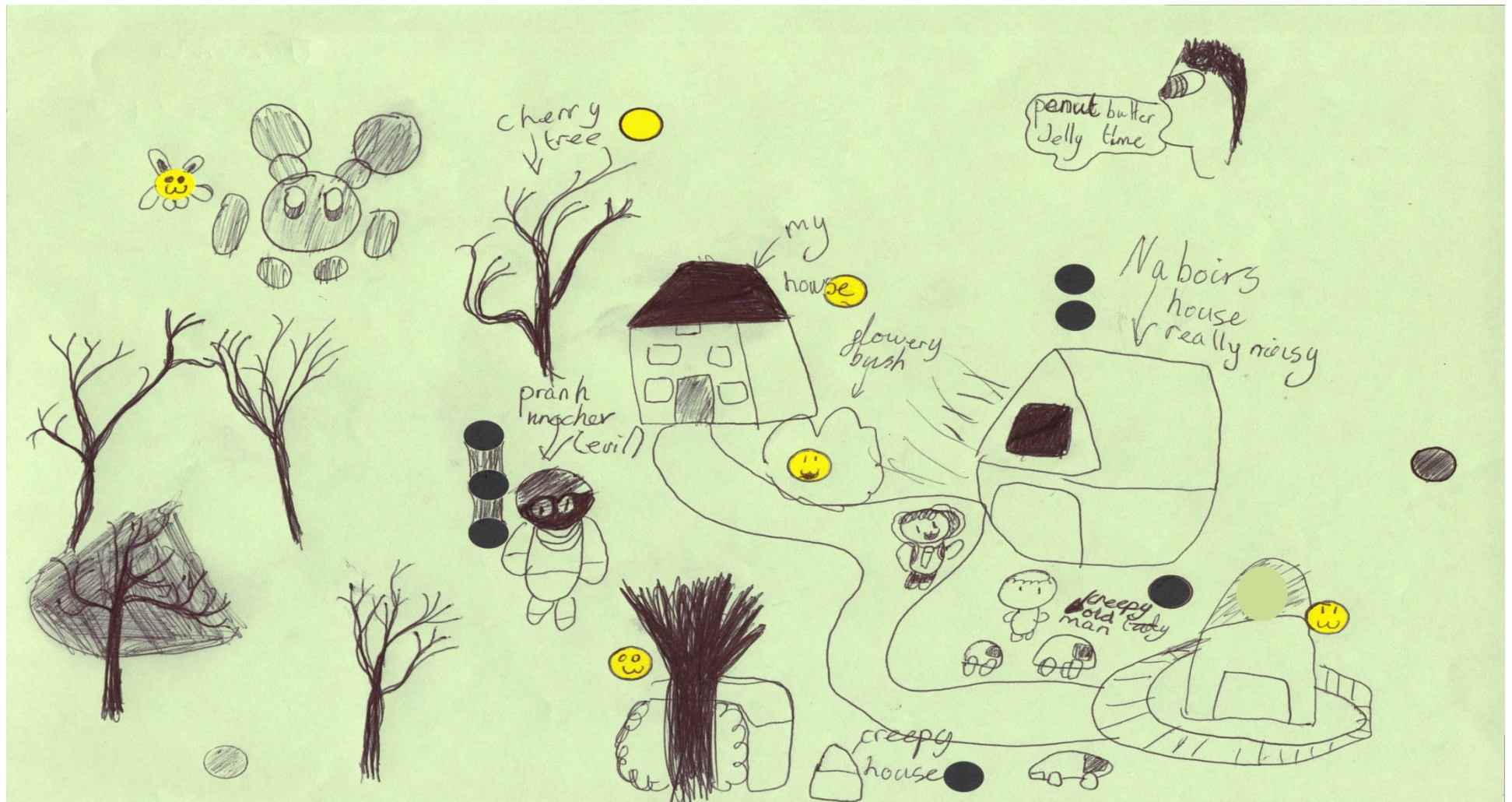


Image 5.10: Amy's map of her journey to school showing various 'likes' and 'dislikes', amongst them her favourite cherry tree.

Trees were also described as sites of pleasure by children attending a government school in Hyderabad, all of whom described walking to school amidst multiple environmental hazards. Nearly all the children recollected times when they had plucked or caught a falling fruit, evoking memories of the sweet taste of the fruit as they did so:

While coming, I like the mango tree there, one day I caught the ripened fruit falling, and tasted it, very sweet.

Shruti, 12, government school group activity, Hyderabad

I tasted the fruits [from the guava tree], plucked them, they are very sweet, and that's why I like it.

Kumari, 12, government school group activity, Hyderabad

Mango tree in my courtyard (...) It's very big, it yields fruits, and they are sweet, that's why I like it.

Anand, 14, government school group activity, Hyderabad

These children's talk of the trees stands out as something pleasurable in their narrated journeys, amidst talk of multiple environmental hazards; rubbish, open drainage, vehicle fumes and stagnant water. The sight of trees and memories of sweet fruit can be understood to have symbolic as well as material affordances as a site of pleasure and relief from the monotonous and hazardous nature of their walks. Both the material and the symbolic affordances of trees can be seen in Shruti's response to my question of what she thought her environment would be like without the trees she spoke of:

If there are no trees, we feel boredom, if there are trees feel happy. Trees give shade, if there are no trees there won't be shade.

Shruti, 12, government school group activity, Hyderabad

Children across (geographical and socio-economic) contexts associated trees with play, cool breezes and fresh air, as well as commenting on their aesthetic properties. The sensory pleasure of fresh air afforded by trees was seen in an

account of her journey shared by Nisha, who took part in the group activity in the international school in Hyderabad:

Nisha: (...) This is the garbage dump near the school where all the society will just, like, dump their garbage near the school. It is very stinky. And it causes more fumes around there so it's a ('big') dislike, all this part (*Nisha laughs*). Now my next place to go is a bit forward, there's trees all around. And it's very pleasant to walk through, so, like, when I go from the garbage into this new place I feel very (.) relieved (...) So it is very good for me ('being there') because there is a pleasant breeze which is there and there are many creatures and it's good.

Nisha, 12, international school group activity, Hyderabad

In this account, Nisha establishes a clear contrast between the two spaces of the '*garbage dump*' and the wooded area and distances herself from the former, presenting it as a place where '*all the society*' dump garbage and seeming not to include herself in this group. This description heightens her presentation of the wooded area as a place of pleasure and relief, where it is '*good*' for her to be. Amrutha, who travelled to school on an air-conditioned school bus in Hyderabad, also spoke in the same group activity as Nisha of the '*smelly*' piles of '*garbage*' she saw from the windows of the bus:

Catherine: And you mentioned that the garbage is very smelly.
Amrutha: Yeah, because they throw a lot of plastics and they are wasteful with it.
Catherine: Mmm. Do you – is there anything that you do when you're driving past the garbage? Do you have a handkerchief, or (...) ?
Amrutha: No actually, we don't usually – because we're in the bus and all the windows are closed.
Catherine: Oh, OK, so it's just something that you see?
Amrutha: Yeah, it looks pretty stinky.

Amrutha, 12, international school group activity, Hyderabad

As in Nisha's account, Amrutha's response shows her actively removing herself from the garbage and how it came to be there, as she evokes an unknown other to explain this. Amrutha's comment that the garbage '*looks pretty stinky*' shows a level of removal from the garbage afforded by the air-conditioned bus and her use of sight rather than smell to explain her dislike of the garbage indicates the power of material objects to minimise how she experiences this hazard.

However, the regular sight of garbage even from a distance means that Amrutha's removal is not absolute, and the way that the smell of this is evoked for her though seeing the garbage may be linked to memories of smelling garbage on other occasions.

Examples presented above offer rich, sensory descriptions of the environments encountered by children on their journeys. Children's 'sensory stories' also highlighted the visceral ways in which some children experienced environmental hazards such as traffic fumes and the noise of traffic, exposed waste, stagnant water and factory emissions. These sensory stories allude to the embodied and affective ways in which children experience the environments they travel through on their journeys to school and highlight important structural varieties in their exposures to environmental hazards, whether immediately encountered or sensed from a distance. Children's narratives also illuminate how the natural and constructed environment are interwoven in how they are experienced, for example, as the fresh air afforded by trees provides relief from bad smells, heat and the monotony of environments where there may be little natural beauty.

5.3: Discussion

Across the chapter, children's narratives illuminate the natural, constructed, social and (for some children) virtual affordances of their environments. Children's narratives show clear differences in the types of environmental hazards they were exposed to, whilst highlighting the (always partial) protection or removal from these hazards available to relatively more affluent children. Multi-method research enabled children to present the affordances of their everyday environments in different ways and allowed researchers to have direct, embodied experiences of these affordances.

The variety seen and how this may be mapped to structural differences in the sample of children making up the research allows for critical consideration of the uneven affordances of children's environments. This variety also shows how children's direct access to 'nature' – something highly prized in environmental education literature – is mediated through factors such as children's family and

peer relationships, the social norms at play in different spaces, the changing climatic and physical qualities of the environment and the ways in which the natural environment has been adapted to support human activities in different contexts.

Children's narratives presented in this chapter challenge romanticised presentations of the 'natural' environment as a universally positive and supportive space for children, as sometimes found in environmental education literature. Amidst even the most hazardous and monotonous of environments, however, children demonstrated affective concern for valued aspects of the natural environment, suggesting embodied experiences of these to be foundational to children's impetus to care for the environment. The ways in which children's ongoing understandings of environment are informed by both learned and embodied knowledge are further considered across the next chapter.

Chapter Six: Children's situated understandings of environment and environmental concern

In this chapter, I explore the multiple influences shaping children's understandings of environment, considering the following research question:

- In what ways do forms of knowledge presenting the environment as an object of concern enter into children's lives, and how do children reconcile these forms of knowledge to their embodied experiences of their environments?

In Section 6.1, I review some of the forms of environmental knowledge referenced by children across research activities, whilst in Section 6.2 I present case examples of how children drew on environmental knowledge to construct narratives of environmental concern and responsibility. In both sections, I attend to how children engaged dialogically with the voices of others, including other participants and researchers, environmentalists, teachers and family members, to make sense of what they had heard about the environment. I consider the multiple influences on children's narratives, as well as the narratives themselves, as 'situated knowledges', described by Haraway as 'the view from a body, always a complex, contradictory, structuring and structured body, versus the view from above, from nowhere, from simplicity' (1991, p. 195). I also consider how children embedded sociocultural resources into their narrative constructions, for example popular environmental images or 'canonical narratives' of environmental concern that children took to be commonly understood in the contexts in which they spoke (Phoenix, 2013, leading from Bruner, 1990). As part of this consideration, I acknowledge the research study as an additional influence on how children constructed narratives of environment and environmental concern in research activities.

6.1: Forms of knowledge and sites of learning about environment

School-based learning and practices

Across research activities, children's schools perhaps unsurprisingly emerged as a major site of learning about the environment as well as, in some cases, a space to enact knowledge through taking part in 'pro-environmental' initiatives such as eco-clubs or gardening projects. As part of discussions carried out in children's schools, I asked children to share things they had learned about the environment. With these discussions often taking place in school classrooms, it was difficult to avoid these questions appearing like tests of children's knowledge, and children's initial responses showed them working together – or perhaps competing – to recall things they had learned, as seen in the example below:

Catherine: I want to ask you now about the things that you learn in school about the environment, so things like global warming and the water cycle and anything like that. Could you tell me what subjects -
Sampath: Ozone layer is getting [destroyed =
Rahul: = That ozone layer]
Catherine: OK.
Preethi: About global warming (...*inaudible*).
Catherine: In biology, OK.
Rahul: About water wastage.
Catherine: OK (.) So you were saying – Preethi, you were saying about global warming. Could you tell me something about that? I'm not testing you, I just want to hear something.
Preethi: Um, smoke released from factories and vehicles and using plastic bags, um (.) um, deforestation, cutting trees and water pollution, because of this.
Catherine: OK, so those are the causes of global warming, OK (.) Has anyone learnt anything about the effects of global warming, how it might impact upon...?
Sridhar: Effects of [ozone =
Preethi: = ozone is getting] damaged.
Sridhar: Acid rain.

Private school group activity, Hyderabad

Children's apparent keenness to demonstrate learned knowledge about the environment in this extract was replicated across school group discussions and

was perhaps an indicator of how the study – and this activity in particular – may have been associated for children with school activities, where the demonstration of learned knowledge is valued. There was significant overlap between schools in children's initial responses to questions about what they had learned about the environment, with global warming, acid rain, pollution, recycling, the use of plastic bags and renewable energy all featuring as commonly listed topics. Discussions of these topics nonetheless often led to situated understandings as children drew on their surrounding environments to explain these.

One example of this occurred in Chandrasekhar and Dharani's school in an earthquake-prone part of rural Andhra Pradesh, where children referenced volcanic eruptions and earthquakes, demonstrating local understandings of a purportedly global environmental concern:

Catherine: What kinds of things do you learn about at school about the environment? So, for example, things like global warming, can you tell me about that?

[Following translation from Madhavi]

Akhil: The earth is getting heated up from within and emitting it out and the natural resources within the earth are getting dried up due to incessant digging. Due to digging the earth for petrol and its products like kerosene oil, the bowels of the earth are empty. And [this causes earthquakes =

Madhavi: = Yes, this results in earthquakes] occurring frequently. He is telling that if you take out all the petrol and everything [from the ground =

Akhil: = Kerosene =

Madhavi: = Ah], kerosene and everything from the earth, out, the earth will be empty in the layers, in the down layers. So from – with that there may be the effect of having the earthquake.

Catherine: Mmm, and he'd learned about that at school?

Madhavi: Who taught you this, where from did you learn this?

Akhil: [In my social studies =

Chandrasekhar: = We learn it in social studies]

Madhavi: Social sciences.

Dharani: Generally there is a belief here among the people that to appease the volcanoes they pour jaggery syrup into the earth. There is a place here nearby, they pour this syrup into and other offerings made to the idol of the lord. They feel that that can alleviate it and thereby cool the earth.

Government school group discussion, rural Andhra Pradesh

This discussion shows children incorporating understandings from school classes, popular beliefs and practices and weather patterns to make sense of 'global warming', highlighting how curriculum-based knowledge was one of a number of forms of knowledge offering an explanation for this particular concern.

In addition to being a site of curriculum-based learning about environment, some schools also encouraged environmental learning through practical activities. Chitra and Hemant's private school in rural Andhra Pradesh had a garden on the roof terrace and their school principal explained to the research team how students were involved in tending the garden and were encouraged to add a plant to the garden on their birthdays. In the school group activity, students also referred to this initiative:

Chitra: Once in a while someone's birthday is celebrated. Mostly on such occasions chocolates are distributed, and this was also followed by us.

Madhavi: Mmm.

Chitra: Our principal approved of this and also suggested us to plant a sapling along with that. He said that if we planted a sapling and if it grew into a tree we would be doing a good deed. It is good for us. It would give us fresh air. This is how he addresses us every day during our assembly.

Private school group discussion, rural Andhra Pradesh

This extract highlights the influence of individual teachers as Chitra recalled the principal's voice to support her presentation of the planting of saplings as a 'good deed'. Whilst the spatial affordances of schools attended by children across the sample varied considerably (see pen portraits of schools in Appendix Two) and not all schools had gardens, most teachers interviewed were keen to point out ways in which students learned to value their environments through extra-curricular activities such as gardening or 'eco-clubs'. Teachers also gave examples of student-led initiatives in their local communities, such as clearing rubbish or marches to raise awareness of environmental concerns.

Some children's accounts suggested that schools embedded attention to resource use into school activities and made children responsible for monitoring the resource use of others in ways that resonate with how some scholars have conceptualised a notion of 'environmentality' (see Agrawal, 2005; Hobson, 2013; Mawdsley, 2009). In a discussion carried out in Amrutha and Aamir's international school in Hyderabad, students spoke of how a teacher's attention to their resource use had reinforced the teaching they had received about saving energy:

Catherine: What kinds of things do you learn at school as being good or bad for the [environment? =
Amrutha: = Nooott] to cut down trees.
Catherine: Not to cut down trees, OK.
Aamir: Saving energy.
Catherine: Saving energy, yep.
Jahnvi: Not use plastics.
Catherine: Plastics, yeah.
Jahnvi: As last year we used to always leave our class with the lights on. So they, uh, teacher used to punish us, used to write on the board that I caught this class with having the lights on. So now we have reduced on that.

International school group discussion, Hyderabad

Attention to resource use was also incorporated into school activities in Helena and Callum's school in rural England through a student-led 'eco-reps' system where nominated 'eco-reps' could monitor the resource use of peers and teachers. Helena, who was an 'eco-rep', used the school group discussion to highlight inconsistencies between the environmental knowledge underpinning this initiative and the practices of some teachers:

Helena: I sometimes get worried at school when the teachers give students ten hand-outs in a lesson. It's like you can't do much about it. Even if I'm an eco-rep, we do have the right to tell teachers to turn the light off.
Catherine: Oh, OK.
Helena: But most people are just scared to tell the teacher, because the teacher's, like, 'I'm a teacher, you're a student, you can't tell me what to do'. And I'm like, 'I'm an eco-rep!'
Callum: Yes. I know stuff that – I know lots of stuff that you don't!
Helena: Yeah. But then it's, like, 'I already know this, you don't, so you need to listen'. It's that kind of thing.

Callum: Yeah.

State school group discussion, rural England

Although initially conceding that *'you can't do much about it'*, Helena's responses here, supported by Callum, show how the 'eco-rep' system affords her the *'right'* to monitor and speak out against the resource use of those usually in a position of authority over her. Helena supports her right to speak out by referring to her comprehensive environmental knowledge in comparison to (how she assesses) that of some teachers – *'I already know this, you don't'* – thus highlighting knowledge as a way to subvert the usual pattern of authority between teachers and students. This example and others presented across the section show how the knowledge generated and in some cases the practices enacted in the school space supported children's theoretical understandings of environmental concerns whilst often presenting them with ideas of ways in which they and others could (or 'should') act in response to such understandings.

The home as a site for learning and consolidating environmental knowledge

Amidst significant interest in children's potential to influence household practices, the influence of parents' environmental beliefs and practices on children's understandings of environment is perhaps more taken for granted. In this study, research activities afforded insights into the ways in which the home might be a site of learning about or consolidating learning about environment for some children. This was particularly the case where it appeared that environmental concerns were regularly discussed by family members, and where being knowledgeable about such concerns was a valued subject position.

One example of this was Humphrey, living in London, whose parents gave various examples of changes they had made to their everyday domestic practices in response to environmental concerns, from using the car less to having their house 'retro-fitted' to minimise the energy needed to heat it. In the

first family discussion, Humphrey's parents elaborated the family's '*responsible position*' on environment and the influences on this:

Rodger [*father*]: We, we think that if (...) if everybody did (...) I suppose took the same responsible position that we were taking, then (.) the whole country's carbon footprint would be, you know, we'd meet our targets that we're supposed to be reducing by 2020 fairly easily, I would have thought.

Julia [*mother*]: I think it's partly because we read the newspaper.

Rodger: Mmm.

Julia: I've (.) been quite (...) startled at intelligent, I thought well informed people (...) who just last year were not aware that fish stocks were running out. Now, if you read the paper (.)

Humphrey: Even I knew that.

Julia: Well that's partly because we keep telling you.

(*Laughter*)

Humphrey, 12, and parents, family discussion, London

This short exchange between Humphrey and his parents suggests that conversations about environmental concerns are commonplace in Humphrey's home, making it a potential site of learning. This impression was later corroborated by Humphrey who, when asked in his individual interview about how he knew about the environmental concerns he spoke of, listed a number of sources including '*my parents [...] the news [...] books [...] newspapers and stuff*', before concluding that '*I just kind of know about them*'.

The links identified by Humphrey's parents between their own (and by inference, others') '*position*' on environment and the wider state of the environment, and their explanations of how this had led them to make changes to the infrastructure of their home illuminates the way in which particular understandings of environment may be consolidated through domestic practices and justifications for these. This could be seen in a separate exchange with Humphrey where he explained the family decision to use the car less in relation to its perceived environmental impact:

Hanan: Do you ever feel that the things that you do in your life have an effect on what is happening in the environment?

Humphrey: Well, I suppose using the car. Like the petrol gives off fumes and that's air pollution. But (.)

Hanan: Mmm hmm.

Humphrey: Like, we very rarely use the car. We only use it, like, once a week and that's, like (...) Maybe twice at most. So we don't use the car that much.

Hanan: Mmm hmm.

Humphrey: So we're not, like, contributing hugely to air pollution.

Hanan: No.

Humphrey, 12, individual interview, London

In this extract, Humphrey appears to have 'owned' the understanding presented at various points in the research by his parents that particular practices (in this case car use) carried out by individuals contribute to environmental problems, indicating this ownership through his use of the collective pronoun. Humphrey's example highlights the way in which everyday practices and the knowledge informing how these are enacted may normalise particular understandings of environment, in this case the causal link between car use and air pollution. For Humphrey, the home can be understood as a site of learning where particular forms of environmental knowledge are presented and consolidated in multiple ways, from conversations between family members to everyday practices and the very structure of the home.

Helena and her father James, living in rural England, also pointed out the various adaptations they had made to their home to minimise their everyday resource use. Like Humphrey's family, Helena and James linked their everyday practices to their strongly pro-environmental beliefs, and in their first family discussion supported one another as they recalled these practices:

James: You know, we're using the second smallest bin size and it's half full. Because we recycle everything, we put stuff in the compost bin. I've got (...) I've got a compost bin outside for all the food stuff. I've also got [a pile =

Helena: = We've got] a water butt.

James: Yes.

Helena: And we've got a ginormous compost heap.

James: I've got a pile for grass clippings. When, when I do a bit of pruning myself and (...) the guinea pigs (.) waste, you know the soiled hay and newspapers. So (...) you know we, um, we're halfway to permaculture if you like (.)

Helena, 12, and James, family discussion, rural England

As in Humphrey's interview seen above, Helena's use of the collective voice in this extract indicates ownership of the pro-environmental practices spoken of by her and James. These practices are congruent with Helena's school-based identity as an 'eco-rep' and her endorsement of reducing waste in school, as seen in the section above. The continuity between the environmental knowledge and practices valued across the spaces of home and school may support Helena's sense of 'ontological security' (Giddens, 1991) as one consistently acting on her awareness of environmental concerns.

Although Helena and Humphrey were in some ways distinct from the rest of the sample in the extent to which they and their families spoke of enacting 'pro-environmental' practices in their homes, a number of other children recounted making changes to everyday household practices in response to their understandings of their environmental impact. Rosie spoke of sticking 'post-it' notes next to light-switches in her home in rural England to remind family members to turn these off. In Hyderabad, Amrutha's mother explained how Amrutha and her sister would sometimes ask her to turn off the air-conditioning in the car in response to an understanding (later reinforced by Amrutha in a family discussion) that air-conditioning was a cause of melting ice in the Arctic. In such a varied sample, the drive to reduce household resource use in response to global environmental concerns did not have the same relevance for all families. However, some families living in constrained contexts recounted small arguments about the use of everyday resources amongst family members or embedded references to arguments between family members over the amounts of water used in activities such as bathing, cleaning or brushing teeth as they collectively recalled domestic routines. This once again suggests the home to be a site of negotiation between family members and the different forms of environmental knowledge – in this case, the immediate threat of resource scarcity – they brought to their enactment of everyday practices.

Local laws, government activities and 'authoritative knowledge'

A number of children in the sample spoke of local laws and government activities that regulated public access to household resources, for example, the

timings of water availability in public taps or 'load-shedding' schedules regulating electricity in Andhra Pradesh, and hosepipe bans in England. This section considers how such laws may have served as additional forms of knowledge consolidating children's understandings of environmental concerns relating to sustainability, resource scarcity and environmental degradation.

Callum, living in rural England, referred to hosepipe bans as one consequence of increased water use in his individual interview:

Catherine: I know we've talked a little bit about water use and kind of turning on the lights and turning off the lights and things – but do you feel like the things you do actually have an effect on what happens in the environment?

Callum: Um (...) yeah, 'cause, like, when people just, like, leave the water on it pushes up – don't only push up their, um, water bill, but it, um, like, pulls more and more water in. It doesn't make a huge effect, but it does make an effect.

Catherine: Hmm.

Callum: Um, pulls more and more water in and then it goes into, sinking into the drains and everything which get filled up.

Catherine: OK. Hmm (.) And how does that – like, how does that change things, if the drains get filled up? Like, what impact does that have on other people living here?

Callum: Um (...) like, it can lead to droughts, like hosepipe bans and stuff.

Catherine: Hmm. Have you had any hosepipe bans recently?

Callum: Er, there was one this year.

Catherine: Mmm.

Callum: And um (...) yeah, um (...) but we – (I was round my cousins and um, we filled up loads of water balloons, um, which we eventually discovered I'd been told not to do (*faster*)).

(*Catherine chuckles*)

Callum: And then we had a water balloon fight which was really cool.

Callum, 11, individual interview, rural England

The humorous story Callum used to frame this exchange highlights the relatively minimal way that the hosepipe ban affected his activities, at least before finding out about the ban. However, recollection of this leads Callum to reflect on the water balloon fight as a transgressive activity – something '*I'd been told not to do*' – indicating how forms of authoritative knowledge may lead individuals to reflect differently on particular activities and practices.

In Andhra Pradesh, a recent state-wide law banning the use of plastic bags was recalled by almost all children in their school group discussions as an example of something that they had been told was 'bad for the environment'. Students recalled school teaching, government media campaigns and visits to shops to explain how they had become aware of this law. In one group activity carried out with Chitra, Hemant and others, recollection of this law prompted passionate explanations from children as to the various forms of harm caused by plastic:

Chitra: We are using plastics and then discarding them on the surface of the soil. If this remains on the surface of the earth, it seeps into the earth and [spoils the earth =

Hemant: = They told us about this]

Bindu: And due to this, there is a hole in the ozone layer.

Chitra: Teacher, it seems there are holes in the ozone layer. If we don't stop and still go on using plastics, this hole will grow in size and destroy the earth.

Bindu: It will become responsible for the destruction of the earth.

Nagendra: There will be depletion of ozone layer because of the indiscriminate use and disposal of plastic. If we resort to this, the ultra-violet rays will fall directly on the earth because of which there are possibilities of destruction of the earth. So it is sensible to avoid using plastic because of all these consequences. It is good for our surroundings and for the environment and the surroundings around us.

Bindu: For the environment and [our surroundings=

Chitra: = It is also beneficial for the birds living around us in our habitat =

Bindu: = It is also beneficial for all the living organisms in our habitat]

Private school group discussion, rural Andhra Pradesh

This extract serves as a local example of Clapp and Swanston's observation of the changing norms and governance that have reframed understandings of plastic bags on a global scale from 'benign modern conveniences' to 'environmental hazards that threaten human and animal welfare' (2009, p. 315). Although children's explanations of the harms of plastic were prompted by Chitra's recollection of the state government law to ban plastic bags, there is no reference to the law itself in this extract. Thus whilst the children here can be seen to indirectly affirm the validity of this law, they draw on complementary forms of environmental knowledge to do so. This highlights once again how forms of knowledge gained from different sites and often relayed by those in

positions of authority (whether teachers, parents or government officials) intersect to inform children's understandings of particular environmental concerns.

Media and popular presentations of the environment

Across research activities, some children drew on knowledge presented in television advertisements, documentaries or films to support their presentation of a particular environmental concern. Having referenced animal extinction as an example of a 'big environmental issue' in his individual interview, Humphrey gave an example to illustrate this:

I mean, there's loads of adverts on TV talking about like trying to save animals. And actually it's quite shocking how many there are left. I think they said, like, there are only six hundred Bengal tigers left in the world, which isn't (...) is not a lot. That's like double the amount of people in my school.

Humphrey, 12, individual interview, London

Humphrey's example highlights the ways in which particular symbols – in this case endangered tigers – may be used to animate complex environmental knowledge in individuals' imaginations. Here, the symbolism of the tiger comes into play on (at least) two occasions as, having been presented to him through a television advert, Humphrey himself uses the motif of the tiger to illustrate his environmental knowledge. Humphrey's attempts to make the loss of Bengal tigers relevant to his everyday life can be seen in his creative engagement with the statistic presented, drawing upon the familiar space of his school to imagine the loss of tigers.

Other children used environmental motifs drawn from the natural world (polar bears, the Arctic, the Amazon rainforest, parrots) to express environmental concerns (as also seen in research by Littledyke, 2004; Wilson & Snell, 2010). Amrutha, living in Hyderabad, drew on the image of polar bears facing extinction to explain her attempts to reduce her use of air conditioning. Discussing this as a family, her parents located Amrutha's concern to her

enjoyment of wildlife programmes such as *Animal Planet*, which was referenced by other children in India and England as a programme they enjoyed.

Dharani, living in rural Andhra Pradesh, shared her sensory experience of seeing fewer birds in her area to express concern over a ‘*cell phone virus*’ caused by the building of mobile phone masts in the area:

Dharani: Due to cell phone virus some of the birds are not coming now. As they are not coming, I am telling of the existence of pollution (...) parrots used to be there in all the places, now due to virus they are dying, parrots are like that. Birds are going (.) Going by searching where there are no viruses.

Dharani, 12, individual interview, rural Andhra Pradesh

Through further discussion, Dharani recalled reading about the ‘*cell phone virus*’ in a school textbook and hearing the same message from older children at school. The extent to which this concern is popularly understood across Andhra Pradesh (and India) was further demonstrated when one of the translators who worked on *Family Lives and the Environment* data added an explanatory comment to her translation of Dharani’s response, noting that ‘*there is a fear that sparrows have disappeared due to the radiation released by mobile cell towers erected across India*’. Although leading from a local concern about mobile phone use, this concern taps into the same overarching narrative of wildlife loss due to human-caused environmental degradation that was referenced in different contexts by Humphrey and Amrutha.

Anand and Gomathi, both living in Hyderabad, referenced a more extreme popular narrative of environmental degradation in their individual interviews by referring to stories that they had heard that the world would end through a weather event. Gomathi, speaking of a ‘*blast*’ that would end the world, explained that this had been told to her by her older brother, whilst Anand related his own presentation to the film *2012*:

Anand: I also heard people say that the world would come to an end due to a deluge in 2012.

Madhavi: Even the total uh, world will see closure by 2012 – he heard that.

Catherine: OK.

Madhavi: Who told you about this?

Anand: A movie was made based on this.

Madhavi: There was a movie also on that.

[Following further discussion about how Anand heard about the film]

Catherine: So how does he feel about that? Does he believe those things? That the world [is coming to an end? =

Madhavi: = Well, someone told you] and then it was also shown on TV and then all were talking about that and then a movie was also released and you had watched it. After all these, did you still believe all that or not, tell me?

Anand: As so many had told [me] about this so I believed it, but not completely. Only to some extent.

Madhavi: Pardon?

Anand: I didn't believe it completely but now the time has come but nothing has happened. As nothing has happened now, I don't believe it at all.

Anand, 14, individual interview, Hyderabad

In contrast to Humphrey, Amrutha and Dharani, who appeared to use popular environmental knowledge to present themselves as responsible individuals speaking out on the need to act on environmental concerns, Anand presents himself in the above extract as relatively unconcerned by the environmental destruction presented in *2012*, because by his own admission he does not believe the narrative that the film presents. Anand's response shows how he weighs up particular forms of knowledge about the environment in relation to his lived experiences, in this instance explaining his disbelief by the fact that the apocalyptic events presented in the film did not occur in the timeframe presented. The film may indeed be an example of a popular presentation of risk that is too big or too uncertain for individuals to take seriously (as discussed by Lorenzoni et al., 2007; Threadgold, 2011).

The sections above offer insights into the various forms of environmental knowledge with which children growing up across contexts are presented, and into the ways that children used these forms of knowledge in research activities. The variety of ways in which children engaged with 'global' and 'local' narratives of environmental concern underscores the situated ways in which knowledge is presented, received and transferred between contexts. The authority with which particular forms of knowledge were imbued appeared in some cases to

influence this engagement, as children recalled the voices of teachers, parents, politicians and media figures to support their presentations. It is also likely that children's presentations of environmental knowledge in research activities were influenced by how they perceived the environmental understandings of researchers, peers and other family members with whom they spoke in research activities, or their assessments of the forms of knowledge that might be valued in research activities. Amongst these multiple influences, the responses presented highlight children's capacities to imaginatively and critically assess forms of knowledge in relation to their lived experiences. This is further seen in individual children's narratives of particular environmental concerns, presented below.

6.2: Children's narratives of environmental concern

The short case examples presented below explore how individual children reflected on their own lives and the lives of others in relation to three of the most frequently referenced 'global' environmental concerns by children taking part in the research; air pollution, nature loss and 'natural' disasters. Although these concerns were referenced by nearly all children across the sample, individual children's engagement with these concerns illuminates locally situated ways in which children made these concerns meaningful to their everyday lives, and sheds light on the differing positioning of children in relation to the concerns of which they spoke.

In the context of the research sample, the children whose responses are considered in the case examples below were relatively protected from the environmental concerns of which they spoke, through spatial distance or material intervention or both. The fact that these children spoke in greater depth about 'big' environmental concerns than those who were more immediately exposed to these concerns yet embedded reference to them in more fleeting ways in their everyday narratives highlights an important difference in how children make sense of their environmental vulnerability, which I return to discuss in concluding this chapter. The relatively more expansive ways that the children profiled across this section spoke of environmental concerns offer

insights into the moral and imaginative work that children may undertake in engaging with media representations, socially-constructed knowledge of environment and their own embodied experiences as they make sense of the impact of environmental concerns on themselves and others.

Aamir: Air pollution in the present and future

Air pollution was one of the most frequent concerns raised by children when invited to discuss any 'big environmental issues' they were aware of, particularly (and perhaps inevitably) amongst children living in urban areas. Whilst children often structured their explanations of air pollution around scientific discourses such as ozone layer depletion, fossil fuels and global warming, many children also embedded sensory reactions to phenomena encountered in their everyday lives (for example, factories, vehicles or exposed waste) into these explanations, using their bodies as a 'communicative resource' for constructing narratives (Hyden, 2013).

Aamir, living as part of a twelve-member 'joint family' arrangement in a three-storey air-conditioned home owned by the family in Hyderabad, spoke at length in his individual interview about pollution caused by vehicles and what could be done about this. Initially, Aamir described not feeling personally affected by 'big' environmental concerns, despite having theoretical knowledge of these:

Aamir: I kind of don't think a lot about that stuff, I am kind of in my own world. I'm happy with what I do and I don't think about others, [usually = Catherine: = OK, OK]. That's very honest (*Catherine laughs*), that's good. So where do you hear about those things? Say, for example, things like global warming or drought or pollution, um, where do you get that kind of information from?

Aamir: It's usually my school or the newspapers, news channels. The – that's it, I think!

Catherine: OK, sure. (.) And do you personally feel that there are – that environmental issues like drought or flooding or changes in the climate – do you personally feel that these affect you in any way?

Aamir: Uh, no.

Catherine: No?

Aamir: I don't think so.

Aamir, 12, individual interview, Hyderabad

Like Anand in the above extract, Aamir here demonstrates his knowledge of environmental concerns (in this case, pollution) whilst claiming not to feel personally affected by them. Aamir's description of retreating to '*my own world*' where '*I don't think a lot about that stuff*' may furthermore be facilitated by the environmental affordances of the spaces of his everyday life (a multi-storey house equipped with air-conditioning; a school set in spacious grounds with plants and other greenery; an air-conditioned car; a country house with 'pure air' outside the city where the family spent weekends), all offering partial protections from environmental problems in surrounding areas.

As the interview progressed, however, Aamir again brought up the problem of pollution caused by vehicles to explain his understanding of '*global warming*' and this time related his concerns for what might happen in '*the future*':

Aamir: Because of the pollution that's caused by, uh, vehicles, uh, global warming, it's increasing, right, so you – uh, obviously the climate will be affected.

Catherine: Mmm, mmm.

Aamir: And yeah, because of the pollution, the oxygen and all, it's not – the air, it's getting – it's not fresh anymore.

Catherine: Mmm. So do you feel that that affects the things that you can do at all? Would it cause you to do anything differently in your life if you are aware that there's a lot of pollution around?

Aamir: Uh, no.

Catherine: No. So you still feel that you can go out – even if the air is polluted, it's OK, you can walk around and (.)?

Aamir: Yeah, it's like we – our bodies, it's like, used to all this stuff, right?

Catherine: Mmm, [mmm =

Aamir: = So it's not] a prob – big deal.

Catherine: Mmm,

Aamir: But to breathe in, uh, take the air, this might be a problem in the future, right? So (.) This give me goosebumps for what will happen in the future.

In this extract, Aamir moves from a scientific explanation of global warming to talk from his own localised experience, presenting an assessment that because of pollution, the air is '*not fresh anymore*'. His addition of the word '*anymore*' introduces his presentation of pollution as a longitudinal problem, one that can already be sensed through the depleted quality of the air and the amount of vehicles on the road. My question about how this problem affects him leads to Aamir's assessment that pollution is currently manageable through the adaptive

work of *'our bodies'* and is thus, at present, not a *'big deal'*. However, using the embodied metaphor of *'goosebumps'*, Aamir expresses concern over what will happen in the future, continuing his presentation of air pollution as a longitudinal problem. That Aamir is able to describe air pollution as not a *'big deal'* for him at present may be due to the material affordances of his home and the other spaces making up his everyday life, which, in contrast to the homes of the relatively poorer children in the sample, enable a certain level of protection from air pollution and other environmental problems. Nonetheless, Aamir's narrative evocation of *'goosebumps'* shows his capacities to imagine a future where air pollution may affect him (and others) more significantly, which as well as leading from the environmental knowledge brought into this interview by me as a researcher, is in part based on his sensory experiences of air pollution in the present.

Other children's narratives of air pollution also highlighted their embodied experiences. Kofi, who lived in London and suffered from asthma, spoke of relying increasingly on his inhaler to breathe on days with particularly high pollution levels. Mamatha, who walked to school in Hyderabad, recounted feeling nausea from the air pollution sensed at points on her journey and holding a handkerchief over her face to reduce this sensation (a strategy that I also adopted when travelling through Hyderabad in auto-rickshaws during the fieldwork). Rahul and his brother, also in Hyderabad, spoke of getting headaches from passing through areas of heavy congestion on their bus journey to school and his parents shared how they were considering moving closer to the boys' school as a result. These examples, highlighting the limitations of individual bodies to adapt to pollution, add further gravitas to Aamir's presentation of air pollution as a concern, his allusion to the work of the body to *'get used to it'* and his concern that things might worsen in the future.

Rosie: Loss of natural beauty

The loss or destruction of valued natural objects – from the rainforest to polar bears – was another 'big environmental problem' drawn on by children across the sample to present an overarching narrative of concern for the environment and how it was changing. Children used different narrative techniques to

construct the loss of nature as a concern, for example, embedding personal stories of valued natural objects or spaces in their own environments into wider presentations of threats to nature, drawing on symbolic environmental motifs or speaking in medico-scientific terms to elaborate threats to human health associated with the loss of nature. Amongst these more common narrative resources, a smaller number of children used their 'narrative imagination' (Andrews, 2014; Brockmeier, 2009) to construct a world without these objects, identifying the affordances they most valued in their environments by imagining a world where these could not be enjoyed by 'future generations'.

This imaginative work could be seen in Rosie's construction of a narrative of 'going to the moon' across research activities, prompted by her family's concerns that a proposed industrial site near to their home in rural England would destroy valued aspects of their environment. Rosie's parents' strongly narrated stance against this site, elaborated at length over the first family visit, was framed in longitudinal terms as part of an ongoing process of unsustainable development that they recognised to pose particular problems for their children as 'the next generation':

Sally [*mother*]: So we feel like we've come from this pure, clean place [*the family moved to the area around one year prior to the research activities*] and, and it's – and of course we're more concerned because (...) this is, this is, you know, you were saying, this is the next generation here.

Catherine: Mmm.

Sally: And you know, what are we doing to them?

Janet: Yeah.

Sally: We, we're, I think we're going down a road where we potentially aren't going to be able to recover from it.

[*Following Sally's account of discussing the site with a neighbour*]

Sally: You know, [what's the legacy we're leaving behind? =

David [*father*]: = Mmmm]

Rosie: We're going to the moon apparently.

Rosie, 12, and parents, family discussion, rural England

In response to her mother's strongly worded concerns here (and across the research activities), Rosie's reference to the possibility of humans moving to live on the moon was perhaps intended to dissipate the serious tone of her mother's

concerns. Although unacknowledged in the extract above, Rosie again brought up going to the moon on the mobile interview, as the research team stopped at a viewpoint close to the family home. Leading on from Sally's explanations of how the view would be destroyed if the proposed site went ahead, Rosie again referred to moving to the moon:

Rosie: Well, I'll be living on the moon in fifteen years' time.
(*Catherine laughs*)

Sally: Well, there you go, that's another unspoilt environment!

Rosie, 12, and mother, mobile interview, rural England

In her individual interview, Rosie further elaborated the idea of living on the moon as she spoke about life for children in the future:

Rosie: I mean, there's talk of going to the moon and everything, and I find that really cool (*Catherine laughs*), but everyone else says, like, it's not going to happen and (.)

Catherine: Yeah.

Rosie: That's going to be cool if they can actually take it elsewhere, because that will be somewhere just to replace it. But yeah (.) I just find it's going to be, um (.) it's just going to be (.) something different for them [*children in the future*]. They won't have grown up seeing all this wonderful (.) beauty that we've seen (C: Mmm). And um, there were probably more – years and years ago before all this technology came in and all the industrial estates were built (C: Mmm) Um, it was probably beautiful, but I never got to see that because (I wasn't around (*rising tone of voice*)).

Rosie, 12, Individual interview, rural England

Rosie's twice-stated assessment of the idea of going to live on the moon as something that she finds 'cool' leads onto a more serious point in the above extract as she speaks of the moon as replacing (in a 'different' and inferior way) the kind of positive aesthetic engagement with the natural environment that she seems to be arguing children should have access to here (perhaps echoing an argument put forward by her mother on the walk). This leads Rosie to reflect upon her own experience of losing access to beauty that 'probably' existed before being replaced by 'technology' and 'industrial estates', including herself as part of a generation who did not get to see this (imagined) beauty. Like

Aamir, Rosie frames the concern she is presenting here in longitudinal terms, looking back to a time when the area was *'probably'* more beautiful to present her current environment as somehow lacking and expressing concern over how the area might be further lacking in beauty in the future.

Echoes of Rosie's parents' presentation of the particular threat that nature loss presents to children and the underpinning understanding of 'unspoilt' rural spaces as positive for children (see Jones, 2007; Tyrrell & Harmer, 2015) can be seen in Rosie's construction of nature loss as an environmental concern affecting future generations. However, in imagining an alternative space where she could go in the face of future environmental degradation, Rosie distances herself to some extent from her parents' presentations. As a member of the 'next generation' facing the consequences of environmental degradation wrought by older generations, Rosie refuses a possible role for herself here as a victim. In doing so, she draws on an alternative narrative framed around the possibilities for human inhabitation of space prompted by environmental degradation (see, for example, O'Neill, 1975). As also seen in Vinay's account (generated for *Young Lives* and presented in Chapter Four) of the possibilities of human inhabitation of 'other planets', Rosie's repeated consideration of humans going to live on the moon again indicates the range of environmental knowledge with which children are presented in an age of environmental concern and the sophisticated ways in which they may engage with such knowledge to make sense of their environments and the changes they sense occurring in these.

Tamsin and Amrutha: Weather events and human suffering

Perhaps unsurprisingly, the question posed to children in their individual interviews about what they knew or understood by 'big environmental events' prompted many children to recall 'newsworthy' events seen on television or other media. As seen in Chapter Five, a number of children related destructive weather events that they had personally experienced or which had been experienced by friends or family members. Whilst these could not be considered in a literal sense as 'everyday' events, for some children these were seasonal and they related feeling their impacts in immediately situated ways.

Much can be learned from how children embedded talk of these events into how they presented the affordances of their everyday environments, as seen in Chapter Five.

Nonetheless, the children across the sample who recalled a personal experience of what they considered to be a 'big environmental event' in research activities were less in number than those who did not. It is thus also important to consider the responses of children whose experiences of destructive environmental events were – in general – limited to having seen these on television and who assessed themselves to be little affected by these in their everyday lives. Amongst these children, Tamsin, living in London, and Amrutha, living in Hyderabad, spoke at length about how they felt at having seen such events on the news.

In her individual interview, Tamsin recalled a report she had seen that day about a tsunami featured on the children's news programme *Newsround*:

Helen: When people talk about the environment, they also mean the sort of global things like global warming and climate change and so on. Have you heard people talk about things like that at school or on TV?

Tamsin: Um, sometimes.

Helen: Right. Can you remember what sort of things you've heard about?

Tamsin: Um (...) no. Um (...) I've heard about the storms and (.) um (...) and (...) rain and (...) um (.) about (...) was it a tsunami, in [an]other country?

Helen: Oh yeah.

Jordan [*mother*]: There's one today, isn't there?

Tamsin: Yeah. That's it.

Helen: Yeah. There was in (...) um, Chile.

Tamsin: Yeah.

Helen: Chile, isn't it?

Jordan: Has it hit there yet?

Tamsin: Yeah.

Helen: I don't know. Has it?

Tamsin: I think it has.

Helen: Right.

Tamsin: Watching *Newsround*.

Tamsin, 12, and mother, individual interview, London

The slightly hesitant way in which the three speakers work together in this extract to locate the 'tsunami' and discuss whether it has '*hit*' shows the minimal

impact this has on their lives beyond an event seen on the news. However, Tamsin's response to Helen's question of whether she felt personally affected by seeing such events on the news indicated the way in which, for Tamsin, this did affect her, as seeing such events elicited a sense of pathos:

Helen: When you, when you see things like the flooding and say, say on the news or things like that, do you ever think any of these things could affect your life in any way?

Tamsin: Um (...) sometimes because it's like (.) you feel sorry for the people that are there. And the amount of kids that (...) that, um (.) like get lost and (...) die.

Helen: So you can imagine (.)

Tamsin: So it is quite upsetting.

The pathos which Tamsin cultivates in this extract for '*the people that are there*' and in particular to '*the kids that get lost and die*' shows her working to personalise the event against the potential normalisation created by routine news coverage. Whilst this kind of distant event cannot be considered as affecting Tamsin in the sense of something she directly experiences, her response shows how such events do affect her life through the emotional and imaginative responses they provoke. Understanding of this is seen in Helen and Tamsin's different but complementary conclusions to Tamsin's story of seeing the tsunami, with Helen pointing out Tamsin's use of her imagination and Tamsin concluding that seeing such events is '*quite upsetting*'.

In her individual interview, Amrutha spoke about those affected by flooding in rural Andhra Pradesh with pathos similar to that expressed by Tamsin:

Catherine: So there's no other ways in which you feel personally affected by things which are happening in the environment?

Amrutha: No.

Catherine: And do you feel that when you watch things on TV, for example, and you see reports of other people whose lives are affected by things which are happening in the environment – how does that make you feel?

Amrutha: It makes me feel bad, I mean, we have such a luxurious life and people in the (rural – rural (*slowly*)) areas – a tongue-twisting word! (*Catherine and Amrutha laugh*) In those areas, they, like, are poor, they're not educated.

Catherine: Mmm.

Amrutha: And I feel like how – I think you remember that day how Naren [another participant] was talking about the slums [in Amrutha's school group activity]?
Catherine: Mmm.
Amrutha: Yeah, so (...) like that.
Catherine: Do you feel like you would like to help them [in some way? = Amrutha: = Yeah]

Amrutha, 12, individual interview, Hyderabad

To some extent, the pathos that Amrutha expresses here may – as with Tamsin – be what she understood as the 'expected response' to a direct question about others' suffering. However, for both girls, the question appears to spark considered engagement and it would be unfair to suggest that their pathos is only in relation to what they feel is expected of them as research participants. Here, Bamberg's (1997) approach to understanding individuals' positioning in the narratives they construct in research interviews is helpful to attend to how the girls position themselves in these extracts. Bamberg considers that positioning operates at three levels – how speakers position themselves in relation to others within the reported events, how speakers position themselves to the audience and how speakers position themselves to themselves, that is, the self that they hold 'to be true and relevant above and beyond the local conversational situation' (1997, p. 337).

In the extract above, my question leads Amrutha to construct a divide between the people she speaks of who – building on my description of *'people whose lives are affected by things happening in the environment'* – Amrutha imagines as poor and uneducated, in contrast to herself who *has 'a luxurious life'*. She sustains this self-presentation as one who is privileged in relation to the people she speaks of by suggesting that she would like to help them, drawing on the example of another child from her school who had spoken of helping people living in 'slums' in the school group activity. Through doing this, Amrutha positions herself to her audience (me, the researcher) as one who is compassionate and aware of her own privilege, who by turn is true to the self that she has presented (along with other family members) across the research activities. Here, Bamberg's three level framework shows how the different forms of positioning engaged in by Amrutha in this short extract are mutually

reinforcing. By speaking of *'the people that are there'* in the above extract, Tamsin likewise distances herself from the people she imagines whilst presenting herself as sympathetic to what she imagines happening to them. In this way, she positions herself to her mother, Helen and herself as one who is both intellectually and emotionally responsive to the things she sees on the news.

The pathos in both girls' responses in some ways appears to strengthen the sense (particularly clear in Amrutha's talk) that, in contrast to the people they imagine and present, they are themselves relatively protected from destructive environmental events. This does not mean that their lives are impervious to such events, yet there may be a sense that repeated viewing of such events, particularly where they take place in spatially distant locations, can cause these events to become associated with particular images or understandings that may reinforce a sense of 'otherness'. Moreover, this 'otherness' may be reinforced by speakers as a coping mechanism for individuals to process emotional responses to environmental events and to maintain a sense of order in one's own life (Threadgold, 2011). The narrative construction of 'otherness', or of temporal distance (as seen in Aamir's response to air pollution) may indeed serve to consolidate an existing sense of security in one's own environment in relation to 'big' environmental events.

6.3: Discussion

The examples presented above show some of the locally situated ways in which children across the sample understood and narrated environmental concerns that are often presented as 'global' in scope. It must be noted, however, that not all children engaged to the same extent with such concerns. Indeed, amongst the children whose everyday lives appeared to be most immediately affected by hazards or resource limitations encountered in their environments, talk about 'the environment' was briefer, less speculative and embedded in accounts of everyday life. Children who shared 'small stories' of their houses leaking at certain times of year, of family members getting ill from malaria, or of wading through mud to get everyday provisions did not present these 'small stories' in

the context of longitudinal or far-reaching environmental concerns, although by telling these they did draw attention to them as environmental problems encountered and – to the extent that was possible – adapted to in the context of their everyday lives.

This illuminates a difference between what, as a research team working on *Family Lives and the Environment*, we increasingly came to understand and refer to as ‘big E’ and ‘small e’ environment, with the former referring to constructions of ‘big’ or ‘global’ environmental concerns and the latter to the spaces and affordances of individuals’ everyday lives. Whilst this chapter shows how children’s situated understandings of environment are constructed through interplay between the two presentations of (big/small) E/environment, it is possible to see how the different immediacies of environmental hazards in children’s everyday lives may have influenced how they foregrounded one or the other presentation in research activities.

In considering the differing ways in which children foregrounded particular voices, subject positions and knowledge to support their narratives of environment, it must be noted that these were prompted by a research study that through its very nature and rationale may have reinforced an overall understanding of ‘the’ environment as an object of concern. As adult researchers are usually seen to some extent as figures of authority, particularly by children (Punch, 2002b), it is inevitable that children’s presentations of environmental knowledge in the research were shaped by their understandings of the kinds of environmental knowledge that they interpreted to be valued by researchers (Phoenix, 2013). Attending to commonalities and differences in the knowledge that children presented can, however, illuminate the situated nature of environmental knowledge by showing varieties in the kinds of knowledge considered to be taken-for-granted and valued in the contexts in which research activities were carried out (Guha, 2006; Guha & Martinez-Alier, 1997).

Chapter Seven: Children's agency to act on environmental concerns

The educational and political contexts framing the lives of children in an age of environmental concern present numerous messages on how they and other individuals can 'make a difference' to what happens in the environment. Scholarly work reviewed in Chapter Two suggests that what childhood sociologists refer to as the 'generation of power' (Alanen, 2001) may make it more difficult for children to introduce 'pro-environmental' practices into their homes, although their symbolic positioning as 'the next generation' and their access to environmental knowledge through educational activities may favourably influence how any 'pro-environmental' messages they share are received. This chapter explores this tension by considering the following research question:

- How do children's accounts of everyday practices and negotiations with those around them highlight the complexities for children of enacting 'pro-environmental' knowledge?

Section 7.1 considers family negotiations over household practices (both negotiations recalled by children and those occurring within research activities) in response to concerns about the environmental impact of particular practices. Section 7.2 explores children's narratives of speaking or acting on environmental knowledge in different social settings and attends to how children drew on their social positioning in explaining decisions over whether or not to speak or act. Section 7.3 considers children's critical reflections on the difference that their own and others' individual and household-level 'pro-environmental' actions might make to addressing some of the wide-reaching environmental concerns discussed across research activities.

7.1: Family negotiations of household practices

Research activities afforded multiple opportunities for children to recall everyday household practices, which sometimes led to ‘small stories’ of ways in which they or another family member had attempted to change a practice in response to concerns over its perceived environmental impact. In a group discussion in his international school in Hyderabad, Aamir embedded an account of attempts to reduce his use of ‘gadgets’ at home in his response to my questions to the children about whether they had tried to do anything differently at home as a result of learning about the negative environmental impact of a particular technology or behaviour:

Aamir: I actually tried to change some things in my house but then I am lazy enough to just leave it and, like, never mind anything (*Aamir laughs*).

Catherine: What kinds of things did you try to change?

Aamir: The, uh – I tried to cut short the usage of ACs [*air conditioners*] and all, but I kind of, um, I’m addicted to those sort of things. Using the gadgets more often.

Catherine: So it’s something that’s part of your life and so it’s quite hard to change? (.) OK, sure. And, um, when you were trying to make those changes, did you tell your family that that’s what you were doing?

Aamir: Yeah.

Catherine: And how did they respond to that?

Aamir: They were – actually they tried their best and even I did the same, but I ended up doing it for short time whereas they did it for, uh, a longer time.

Catherine: Oh really? OK. So you did have a positive impact there, even if you yourself were not making the change, at least other people in the family were! Could you tell me who in your family was good at remembering to not use AC so much?

Aamir: Uh, my mother, obviously (...) mother and my father.

Aamir, 12, international school group discussion, Hyderabad

Aamir’s initial self-presentation as one who is ‘*lazy enough to just leave it and never mind anything*’ resonates with the way he described being in his own world in his individual interview (discussed in Chapter Six). Although Aamir describes all family members’ attempts to reduce ‘AC’ as historical, his more favourable assessment of other family members’ attempts leads to a small shift in his self-deprecating presentation, reflecting that ‘*they tried their best and even I did the same*’. Aamir’s ultimate assessment of being too ‘*addicted*’ to

stop using gadgets fits with his self-deprecating tone, yet – as my own comments in the above extract relate – his account alludes to the difficulties involved in changing practices for relatively affluent children like those in this school group activity, who spoke routinely of gadgets and air-conditioning as enabling comfort, entertainment and sociability.

In terms of intergenerational negotiation, Aamir's assessment that his parents were 'obviously' better than he was at remembering to use less 'AC' coheres with a canonical narrative of responsible resource use as something learned over time and with the help of older family members, which various members of Aamir's family embedded in their participation in research activities. This narrative could be seen, for example, in Aamir's uncle's assessment of the children's intra-generational learning about water use in the first family discussion for the research:

Zeeshan [*uncle*]: Uh, I think the elder [children] have understood the, uh, importance of using less water and they don't waste lot of time either in the, you know, while taking a shower, if they are taking a shower or even if they are using a bucket, they are very, uh, economical I would say. I have begun to (trust them now (*faster*)), but not the younger ones (*Zeeshan laughs*).

Natasha and Madhavi: Mmm

Zeeshan: They still need to understand and I think the elders will one day pass that information and knowledge over to them.

Family discussion with Aamir and family, Hyderabad

The narrative of older generations leading by example can also be identified in the family's response to a vignette told by researchers in the same family discussion about how a hypothetical family might respond to a child's suggestions that the family use less water in response to concerns over drought.³³

Aafiya [*cousin*]: Maybe his mother, she changes her mind and uses less water everywhere, every day.

Aamir: Depends on the mother.

Umair [*brother*]: Or maybe they could try to save [water by, uh =

³³ See research protocols in Appendix Four for the full text of this vignette.

Zoya [*mother*]: = If she were] a mother like me she would have definitely changed.

Natasha: OK (*Natasha laughs*). And why do you think she would change the way she uses her water?

Zoya: Because she is old enough to understand the situation. The child has understood, he has come home fully prepared that this is how he is going to save water, so now it is the mother who has to understand, so being a very mature person in the family she understands and then she cuts down the use of water.

As well as being consistent with Aamir's presentation of his parents as 'obviously' being better at reducing 'AC' in his narrative reconstruction of events in the school group activity, Zoya's intervention amidst the boys' responses echoes Zeeshan's talk presented above by suggesting that those who are '*old enough to understand the situation*' should act on their understanding. This type of response to the water use vignette, suggesting parental responsiveness to the child's concerns whilst reinforcing a position of elder family members having responsibility for managing household resources, was relatively common in parental responses to the vignette across the sample.

Nonetheless, in a number of families, parents gave examples of how children's expressed environmental concerns had drawn their attention to the environmental impact of everyday household practices. In Hyderabad, Amrutha's mother Aruna, for example, recalled how Amrutha and her sister often asked her to reduce the air-conditioning in the car because of concerns about polar bears and melting Arctic ice. The research team later raised this in a family discussion with the two children present, leading Amrutha and Alekhya to explain their concerns:

Amrutha: Ah, saving polar bears, yeah! That was mine.

Aruna: In what ways you save polar bears [by doing that? =

Alekhya [*sister*]: = By not] – [by not turning on the AC [*air conditioning*]! =

Amrutha: = By not turning on the AC] because it kills a lot of polar bears in the [Arctic =

Aruna: = Do we] see polar bears around us?

Amrutha: Not around us but in the Arctic we can see.

Aruna: How do they affect, ah? How do you save them by turning it off?

Amrutha: We won't get to see, but if you use all the AC then you won't get more AC in the future. It's like that.

Amrutha, 12, and others, family discussion, Hyderabad

The causality between ‘AC’ and polar bears employed by Amrutha in this extract demonstrates the power of symbolic images to promote ‘pro-environmental’ messages, as discussed in Chapter Six. Aruna’s scepticism, however, leads Amrutha to call upon another popular environmental narrative – future resource scarcity – which her parents had themselves brought up at various times across the research. Following further discussion, Amrutha’s parents conceded that the girls’ concerns were scientifically grounded and used the opportunity to demonstrate their own environmental knowledge:

Vijay [*father*]: [AC’s] use a lot of CFC gases, Amrutha. So those gases kind of impact the ozone layer which in turn is fastening [sic] the uh, melting cycles of the arctic. So no snow, no ice, polar bears are, um (.) going to extinction.

Aruna: Yeah, that is correct.

The intergenerational exchange of knowledge prompted by Amrutha’s concerns about the polar bears indicates the potential for family members to influence one another’s understandings of a practice that was formerly taken for granted. Amrutha’s generational positioning as one who is learning about the world may work to her advantage, enabling her to demonstrate to her parents how she is applying learned knowledge to everyday life and encouraging them also to consider this knowledge. The ongoing effect of Amrutha’s presentation of concern on how the family negotiated air-conditioning use could be seen in how Aruna described in her individual interview how she herself sometimes reminded Amrutha of her own message: ‘*Whenever she turns on the AC when she wants to sleep, I tell her ‘polar bears are crying, why are you switching on the AC?’*’. Along with examples from Aamir’s family, this suggests that ‘pro-environmental’ activities may have more longevity when they are collectively understood by family members, even when these understandings are not consistently acted on by all family members at all times.

The inter-generational negotiation of practices was also seen in accounts shared by Rosie, living in rural England. Rosie gave various examples of things she had tried to do at school and home to act on her own environmental understandings and influence those of others. One example, briefly alluded to in Chapter Six, was a ‘small story’ of a time when she had tried to remind herself

and other family members to turn off lights by sticking post-it notes next to light-switches. Rosie's telling of this story in the research concluded with the narrative 'coda' (Labov, 1972) of '*I think I need to get [the post-it notes] out again*'. In this and other narrated examples of her attempts to influence her own and others' everyday practices, Rosie engaged with a canonical narrative of individual and household responsibility to act on environmental concerns. One temporary disjunction from this narrative – and an allusion to the difficulties of acting consistently on one's environmental knowledge and concerns – can be seen in the following extract from Rosie's individual interview:³⁴

Catherine: And do you feel like the things that you do kind of have any impact on what happens with the environment?

Rosie: Switching lights (.) really. Just cutting down my energy use, because I know the television gets left on and no one's watching it.

Catherine: Mmmm.

Rosie: And certainly lights get left on when no one's using them. (And my dad goes round counting how many lights are on in the house (*said with a big sigh*)).

(*Catherine chuckles*)

Rosie: And (.) um (.) he goes round every morning and goes, 'One, two, three, four, five, six.' (*Both laugh*). I just go, 'Oh, shut up! I'm just trying to get some sleep!'

Rosie, 12, individual interview, rural England

Whilst showing the difficulty of consistently acting on environmental knowledge (including at times when it may be inconvenient to do so), Rosie's presentation of herself as trying to sleep whilst her father reminds her about the lights serves as an example of how collective understandings of the environmental impact of particular practices can both reinforce understandings and lead to conflict between family members in acting on these understandings. The shifting roles taken by different family members in reminding one another of particular forms of environmental knowledge were also seen in this family as Rosie's parents alternated in how they presented different generations in their family as more or less aware of environmental problems. At times they drew on their historical positioning of having seen the environment change over their lifetime to support their own explanations of environmental problems, whilst at other times they presented Rosie and her younger brother as '*more aware*' of these problems. In

³⁴ See Appendix Five for a worked analysis of a longer version of this extract.

response to the water use vignette, for example, Rosie's mother said that she hoped the girl in the story would *'nag'* her parents to use less water, drawing on an example of how Rosie had *'caught'* her leaving the tap on whilst brushing her teeth that morning to illustrate her point that that *'it's a generational thing, you're more aware'*.

Taken together, the three sets of family accounts presented above draw attention to the difficulties involved in changing practices, and suggest that where particular environmental knowledges underpinning concerns enter joint family understandings, such attempts may be more sustainable as different family members are able to remind one another of these. These accounts also show some of the ways that attempts to enact 'pro-environmental' practices may lead to conflicts and negotiations between family members. The particular difficulties related in the above accounts may have arisen in part from the voluntary nature of the reductions to everyday resource use that children spoke of, as each of their families made clear in research activities that they did not experience resource scarcity to the point where this compromised their everyday practices. In contrast, accounts of negotiating household consumption of essential resources shared by relatively less affluent families in research activities suggested that these negotiations were prompted primarily by the relative scarcity of a particular resource, rather than by a particular 'pro-environmental' message brought into the home by a child or another family member.

In rural Andhra Pradesh where water scarcity was spoken of as a seasonal occurrence, family discussions of water use arising from the vignette presented by researchers (premised on a child coming home from school having learned about drought in the region and suggesting that the family use less water in response) highlighted how water was strictly managed between different household activities and monitored by those responsible for overseeing these activities, usually mothers or grandmothers. All parents and grandparents speaking in contexts where water was scarce were sympathetic to the content of the vignette, and stressed that it was important for children to learn about saving water at school. However, by speaking of water scarcity in historical and societal terms, they made clear that they regarded using water sparingly not as

a 'new' form of environmental knowledge, but rather as an embedded part of everyday life in a drought-prone environment, which was learned through experience and was thus something that they were more knowledgeable about than their children.

Nonetheless, children could (and did) make clear their own awareness of situated and seasonal problems of resource scarcity, and were often supported in this by older family members. For example, as Dharani's family responded to the water use vignette in rural Andhra Pradesh, Dharani's parents and grandparents recalled times when Dharani had come home from school with stories of what would happen if individuals did not reduce water consumption. They encouraged Dharani to tell one such story in the discussion:

Rani [*mother*]: How was the story you told us, after coming back?

Dharani: One son comes, 'Grandpa, Grandpa, why are we taking a bath only once a week?'

Madhavi: Hmm.

Dharani: Then, 'people of previous generations used more, they created shortage for us. If they prevented each drop of water, had they used like this, this situation would not have come.' Grandfather told this, his grandfather.

Dharani, 12, family discussion, rural Andhra Pradesh

This story, which Dharani recalled being told by a teacher, presents a clear causality between the resource use of one generation and the possibilities for resource use of following generations and highlights both the wisdom of older generations and the need for intergenerational cooperation. As with Amrutha and the polar bears, the knowledge on which the story is based may not be new to older family members, yet they appeared to have appreciated Dharani hearing and retelling this story, which connected knowledge passed on to Dharani in school with their own historical experience.

Whilst the ensuing discussion amongst Dharani's family emphasised mutual support amongst family members in their attempts to use water responsibly, other discussions arising from family responses to the vignette led families to recall small conflicts over everyday water use in the home. Speaking from a

'slum' community with irregular water access in Hyderabad, Mamatha's mother recounted how she would often scold her daughters for using too much water on household tasks, assessing that more water used for these tasks would compromise use for others. My fieldnote relates my impression of Nageshwar's father's annoyance as Nageshwar and his younger sister giggled together in one family discussion as they explained how their grandmother would tell them off for playing with water in the shower in their home in a regional city in Andhra Pradesh. In contrast, Tamsin and her brothers, living in London, joked in their response to the vignette about their mother being '*a bit of a clean freak*' and anticipated that she wouldn't like the idea of them not taking baths each day (a point that their mother was more ambivalent about, stating '*I don't know how I feel about not taking a bath every day*'). These responses highlight parents' and children's expectations of the role of older generations in overseeing children's activities and ultimately making decisions relating to responsible resource use at home.

Stories presented in this section offer lived examples of how children's 'pro-environmental' messages may be well-received by family members and may influence family practices, particularly where they dovetail with environmental concerns or knowledge shared by other family members. That many children's accounts suggest adherence with notions of parental responsibility and oversight for home-based resource use, however, shows the limitations to children's possibilities for changing practices in households where parents are not convinced of the need for this.

7.2: Children's narratives of speaking or acting on environmental knowledge

The above examples of families working together to accommodate children's and other family members' environmental concerns resonate with the observations of a number of researchers who have explored children's agency and who have noted that children may be more readily heard at home than in other social settings where a sense of interdependence between individuals may be less (see Mayall, 2002, Punch, 2004; 2007a; Valentine, 2004). This

section considers children's assessments of their agency to speak or act on environmental concerns in settings outside of their home, particularly in situations where children assessed that to do so might involve challenging the practices of others.

The receptiveness of family members to their environmental messages appeared to influence some children's understandings of their agency to relate messages to others within the community. Dharani, attending a government school close to her home in rural Andhra Pradesh, recounted various 'pro-environmental' messages that she had successfully related to her family, for example, planting small trees and flowers in the immediate vicinity of their home, composting organic waste and reducing their domestic water use. Perhaps bolstered by these experiences, Dharani related in her individual interview how she had also passed messages about '*good issues*' to neighbours in the immediate vicinity of her home. Although apparently confident about speaking out amongst her own family and other neighbouring families, Dharani did not present herself as individually leading the changes that her interventions may have influenced. Rather, in reflecting on the transfer of knowledge between family members, Dharani stressed the need to recruit elder community members into carrying out 'pro-environmental' activities, as she assessed that they were overall more likely than children to listen and pass on the message to others around them:

Madhavi: You have told certain problems, who has to solve them?

Dharani: First, elders have to start.

Madhavi: Hmm. And then?

Dharani: And then the same, from one to another has to tell.

Madhavi: Hmm.

Dharani: This problem can be solved.

Madhavi: It is - it has to start with the elders in the family. From them - by seeing them, the others like that, next door, everyone has to learn [about that =

Dharani: = Because] if told to children, few may listen (.) few may not listen.

Dharani, 12, individual interview, rural Andhra Pradesh

Dharani's presentation of elder community members as responsive to environmental messages is very likely influenced by her parents and neighbours' apparent supportiveness of her own messages and by seeing these messages translated into action in the spaces around her home. These experiences of adult responsiveness appeared to have encouraged Dharani to speak out in settings of growing radius around her home, as her parents recounted how Dharani would sometimes 'scold' community members for leaving the communal water tap running. Dharani's positive presentation of her capacities to 'make a difference' through sharing environmental knowledge may have been based on Dharani's self-understanding as one not acting alone but rather as part of a mutually supporting network of family members and neighbours working together to 'solve' particular environmental problems.

In contrast, the seemingly straightforward action of planting around the home was spoken about as complicated in practice by some children attending the government school in Hyderabad and living in cramped and sometimes temporary homes where there was little space to plant. As children in this school discussed their awareness of the benefits of planting, Kumari related how her mother had assessed that as a family they did not have sufficient property rights to be able to plant:

Kumari: She told that this is not our own house, we are tenants. If it's ours we can take up, here they will scold.

Kumari, 12, Government school group activity, Hyderabad

Other children directly or indirectly referenced their positioning in relation to others in the community as a reason to refrain from speaking or acting on particular concerns. Anand, who attended the same school as Kumari, spoke in his individual interview of how he disliked the way that residents of his community threw rubbish, yet when asked whether he had ever said anything to them, he described how he was 'hesitant' to do this:

Madhavi: Now, you have been observing garbage being piled up wherever there are open spaces, and having seen all this did you ever talk about this to anyone? Did you ever tell anyone living

around here not to do this? Did you ever talk to anyone, or reason with anyone about this hazard?

Anand: (*Makes negative noise by pursing lips*)

Madhavi: Did you at least feel like doing that or did you feel like questioning them?

Anand: I felt like that many times. I was hesitant to question them because they were rich and well off and it is not so easy to take them to task.

Anand, 14, individual interview, Hyderabad

Anand's family had migrated to Hyderabad from the surrounding countryside and had lived for a relatively short time in a community which appeared to be expanding rapidly, attracting a variety of socio-economic groups in the process. By drawing on his understanding of the relative wealth of those to whom he might speak to explain why he was hesitant to '*take them to task*', Anand indirectly draws on his own positioning relative to other community members as he assesses what might be achieved by addressing them about the garbage. In contrast, Mamatha, whose account of scolding younger children for defecating in the park across the road from her home in Hyderabad was presented in Chapter Five, may have felt able to do this due to having lived in her community all of her life and being older and perhaps – as one with a toilet at home – relatively better off than the children whom she scolded. Anand and Mamatha's accounts indicate how children may assess the difference that speaking out might make by calibrating their social positioning in relation to those to whom they might speak. Both children's accounts furthermore draw attention to the structural limitations of their communities for healthy living.

Speaking in a very different context, Helena, living in rural England, demonstrated awareness of her generational positioning as a new Year Seven student in her school in explaining decisions made about when to speak out in her role as a student 'eco-rep', a role that afforded her the '*right*' to monitor students' and teachers' energy use:

Helena: People say, 'Oh, for God's sake Helena, it's only a bloody light'. And I'm like ('No! (.) It's wasting electricity! (*loudly*))

Catherine: So do you normally tell people to do it [turn off the light], or do you just do it yourself?

Helena: If they're near, in the room, if they've only just walked out of the door, I go 'Can you turn the light off please?'

Catherine: Mmmm.

Helena: Unless they're, like, this big, scary Yeah 11 boy, but - (*Helena laughs*) normally, if there's no one in sight, I'll just turn off the light.

Catherine: Yeah.

Helena: But I would check, say, if there's like a cupboard open in the room, I will check that there's no one in there before I turn off the light. Like turn off the light and then [*name of teacher*] goes ('what are you doing?' (*shrieking*)).

Catherine: (*Catherine laughs*) Mmmm. And are you – so are you allowed to tell teachers to turn the lights off as well? It's not just (.) you're not just checking up on other students?

Helena: We are (.) (but you don't normally (*quickly, laughing*))

Catherine: OK!

Helena: Because it's like ('Detention!' (*shrieking*)). (*Catherine and Helena laugh*). They're not, they're not afraid to deal out detentions or credits.

Helena, 12, individual interview, rural England

This extract begins with Helena defending one of the core aims of the 'eco-rep' system; to reduce wasted electricity in the school. Here, as in the school group activity (discussed in Chapter Six), Helena's talk shows how the structural support of the 'eco-rep' system enables her (and other students) to develop a sense of being an 'agent of change' within the school space. Helena's commitment to the school's 'eco-rep' activities was very likely encouraged by their consistency with the strong environmental values that characterised how she and her father described their home life. Helena's ongoing discussion of this nonetheless shows how, like Anand and Mamatha, her decisions over whether or how to speak out in her role as an eco-rep are taken in relation to how she assesses her gendered and generational position in relation to those to whom she might speak. Helena laughs off her reference to the '*big scary Year 11 boy*' but her inclusion of this reference shows the difficulties involved in being a newly appointed eco-rep in her first term as a Year Seven student at a new school. Helena's hesitance about whether to tell off a teacher also shows her awareness (perhaps reinforced by my question) of how the student-led 'eco-rep' system subverts the usual hierarchies involved in the student-teacher relationship. Her comment that teachers are '*not afraid to deal out detentions or credits*' draws attention to teachers' relative position of power to punish or

reward students and indicates an assessment of the risk involved in telling off a teacher.

Whilst few children across the sample spoke of addressing adults outside of their families with expressed environmental concerns, where they did relate doing so, they often expressed frustration over the minimal impact of their interventions. Children across Andhra Pradesh spoke of the frustration they experienced in being given plastic bags by shop-keepers, despite a recent state-wide law banning the free use of these. Speaking in a group activity where children were vociferous about the damage caused by the sustained use of plastic, Chitra related ongoing struggles with shop-keepers that she said usually ended in children having plastic bags '*thrust on us*':

Chitra: However hard we try to cut down the use of plastic, still we are not able to follow that. It keeps coming back to us in one or the other way. For example, if we go to a shop and buy some books or notes in large quantities, they are sure to pack it in huge plastic bags. Teacher, however we implore them not to pack it in plastic, still it is thrust on us in one or the other form. We are not able to cut down our use.

Chitra, 12, private school group discussion, rural Andhra Pradesh

Chitra's account shows how the seemingly straightforward act of refusing plastic bags may be complicated in action as shopkeepers' actions impact on others' capacities to comply with the ban. In this extract, Chitra does not relate the shopkeepers' lack of responsiveness to her expressed concerns to differences in their generational positioning (although this may influence these social interactions) but her account nonetheless shows how acting on environmental knowledge involves negotiation amidst unequal power relations. Indeed, children's observations in school discussions across Andhra Pradesh presented an impression that the law was frequently not enforced. This was seen in the responses of children at the private school in Hyderabad:

Sampath: Again they are making covers [*bags*] like that. Again they are making. If they ban like that it will be very [*nice* =
Gomathi: Government] told that ('there will be fine') [*but (inaudible)* =

Sridhar: = But now everyone is (*inaudible*)]³⁵

Private school group discussion, Hyderabad

These children's observations indicate their understanding of the power relations determining individuals' use of plastic bags, and show a collective assessment that more could be done by the government to enforce the ban. Children's critical considerations of the difficulties of complying with the ban raise important questions about the division of responsibility between societal actors to act on environmental concerns and show their awareness of the limitations of what their own attempts to act responsibly might achieve. This was also seen in children's responses to a question posed to all children in the sample about whether they felt they could do anything to improve their local communities. Many children responded to this question by pointing instead to initiatives undertaken by relatively more powerful individuals, such as parents or local or national government officials, or by suggesting initiatives that they felt could be undertaken by these individuals.

In summary, the examples seen in this section illuminate some of the relational ways in which children understand their agency, or capacities to 'make a difference', in the spaces making up their everyday lives. Although many children used research activities to demonstrate their awareness of environmental concerns and to present themselves as responsible actors doing what they could, children also showed their awareness of the limitations of what they assessed was possible for them to do in the multiply structured spaces of their everyday lives. This is further seen in the section below.

7.3: Children's critical reflections on their agency to act in areas of policy interest

This section considers how children across the sample supported or challenged assumptions of individual agency to 'make a difference' in two of the areas where governments and other institutions working in the contexts making up

³⁵ Children's responses in this activity, particularly as they spoke over one another, were unfortunately made difficult to transcribe by a high volume of background noise in the school.

this study have most actively channelled efforts to engage individuals in 'pro-environmental' activities in recent years. I first consider children's responses to messages calling for individual participation in efforts to maintain the cleanliness of public spaces and secondly in efforts to reduce household resource consumption.

Maintaining public cleanliness

In India, many environmental education and public citizenship policies have focused in recent years on engaging individuals (particularly those living in low-income communities) in maintaining public cleanliness (Roy, 2014; Truelove & Mawdsley, 2011). Collection and disposal of household waste is provided by a range of actors, including municipal councils, private companies and public-private or public-community partnerships, all of whose work is supported by informal labour (Anantharaman, 2014; Ezeah, Fazakerley, & Roberts, 2013). The inconsistency of the services available to households, which is closely aligned to the purchasing power of individual households and communities, means that residents of low-income (sometimes officially unrecognised) communities often have extremely limited provision of waste disposal and exposed rubbish is a common sight (Bannerjee & Driskell, 2002; Joshi et al., 2011). The regular collection and disposal of household waste provided by local authorities across England means that there is relatively less exposed rubbish in public spaces, although provision of waste disposal varies between local authorities. Nonetheless, the overall difference in structural provision between countries very likely accounts for how, with the exception of brief references to litter in school grounds and parks, children in England spoke much less about rubbish as an environmental concern than children in Andhra Pradesh.

Nine out of twelve of the children who participated in the study in Andhra Pradesh expressed frustration about individuals not disposing of rubbish adequately in the areas around their homes and linked this to negative sensory experiences, health problems and other environmental hazards, such as overflowing drains or the prevalence of mosquitoes. In allocating responsibility for what they presented as the proper disposal of waste, some children took up what appeared to be a canonical narrative of household responsibility to

dispose of waste properly, whilst other children related their own 'small stories' to draw attention to the structural limitations of their communities and to highlight how their own and others' capacities to dispose of waste were eroded by these limitations. These different presentations can be seen in talk from Chitra, in rural Andhra Pradesh, and Rahul, in Hyderabad:

Chitra: We are not being careful about our resources. All these kind of problems occur only when we are wasteful. For example, if we take the drainages, we throw all kinds of rubbish including the plastic covers in it. Day by day more and more of these start accumulating in the drainage and ultimately, it gets clogged. And then the drainage starts overflowing. So we are the ones who are causing these overflows by throwing rubbish wherever we please. Similarly, when we don't take care of our water sources as we are supposed [to], we get floods. We are the cause of all these environmental issues. Our carelessness and wastefulness are creating these problems.

Chitra, 12, individual interview, rural Andhra Pradesh

Catherine: Who throws garbage there [*in an open space close to Rahul's home that he has just described in his interview*] (.) do you know?

Rahul: All the people who live in the area.

Catherine: In the area, OK (.) yeah. So what do you think could be different about that? What would you like to see changed there?

Rahul: Uh, we should keep, uh, one big (garbage over (*tailing off in English*)). **We should put one big garbage bin there so that it does not pollute [the air =**

Madhavi: = Now what] are they doing keeping it there?

Rahul: Now, it has become like a big heap.

Madhavi: Is there no dustbin?

Rahul: They get the dustbin but take it away after a while and don't replace it.

Madhavi: So, the garbage is thrown all around the dustbin is what you mean?

Rahul: Mmm

Madhavi: So, it fills up and the garbage gets overloaded and falls out, right?

Rahul: Yes, meaning there is no dustbin there.

Rahul, 12, individual interview, Hyderabad

Although both children are speaking from their individual experiences of seeing and smelling rubbish in areas around their homes, Chitra's voices her assessment of how discarded waste is causing environmental problems in a

much more impersonal way than Rahul. Through employing such an impersonal tone, Chitra is able to remove herself (and indeed, any individual) from her indictment that human '*carelessness and wastefulness*' are the main causes of environmental problems. By indicting no-one in particular, Chitra's assessment of human wastefulness in fact indicts everyone and, accordingly, allocates responsibility to dispose of waste more carefully to all individuals. In making this assessment, Chitra echoes a canonical narrative of individual responsibility for maintaining the environment and (at this particular point in her interview) makes no consideration for the difficulties that individuals might experience in doing this.

In contrast, Rahul's assessment, constructed through interaction with Madhavi, of why individuals in his area throw garbage offers a more sympathetic understanding of the reasons for this, stressing how the dustbin that 'should' be there is often taken away and not replaced. In translating Rahul's talk to me, Madhavi translated 'they' (those Rahul describes as taking away the dustbin) as the Greater Hyderabad Municipal Council (GHMC). This co-constructed account presents a more critical take on the agency of individuals to act responsibly on the environmental concerns of which they are aware. By bringing this up in his interview (with Madhavi's support), Rahul exercises a form of political agency by pointing out the inadequate garbage collection in his community to outside researchers. When he later made the same point to his father during the mobile interview, Rahul's father encouraged Rahul to exercise a more direct form of political agency by emailing the GHMC and explaining his concern. Whilst Rahul's father's proposal still relies on an individual doing something (in this case, emailing the local council), this proposal reflects an assessment that necessary changes can only take place when local authorities act in responsible ways.

In contexts with minimal state intervention and a high exposure to environmental hazards, some children spoke of practical actions that they were taking as individuals or households to maintain the cleanliness of their communities in response to environmental concerns. One example of this is Mamatha's account of scolding other children in her community for defecating in the park across the road from her home, because she assessed that this

practice attracted mosquitoes which could enter her home and cause fever. In rural Andhra Pradesh, Chandrasekhar related how he and his father would occasionally clear the drains around his home when they were clogged with rubbish to prevent water from stagnating and overflowing:

Madhavi: Do you think you can do anything to clean this area to make it better? Would you be able to do anything?

Chandrasekhar: Uhun (*sound of affirmation*).

Madhavi: What can we do to clean it up?

Chandrasekhar: We can remove the rubbish. We can remove the weeds.

Madhavi: What else? (.) What else can we do?

Chandrasekhar: We can clear the drainage, so that the rain water flows without stagnating.

Madhavi: Uhun. What else?

Chandrasekhar: That's it.

[Following Madhavi's translation, Catherine asks if Chandrasekhar has done any of these activities. Chandrasekhar responds positively and Madhavi asks him to say more about this]

Chandrasekhar: I used to clear the drainages. My father and I used to do that. We used pick all the rubbish and throw it at rubbish dump site near the lake. We chopped down the weeds when they grew uncontrollably.

Chandrasekhar, 12, individual interview, rural Andhra Pradesh

In this example, Chandrasekhar gives a number of examples of activities taken up by his family to improve the area immediately around their home. These examples followed Chandrasekhar's assessments of some of the problems with his environment, for example, how discarded rubbish in the community would often blow onto the road which, during the rainy season, became very muddy, or into the drainage that ran alongside the road. Chandrasekhar's immediate response to how this situation could be made better was to point out the need for a paved road through the community. Through further questioning, he explained that the government should pave the road '*because we don't have money*'. This response, considered together with Chandrasekhar's descriptions of actions taken with his family to improve the local environment, shows these actions to be an instance of what Klocker terms 'thin agency', that is, 'decisions and everyday actions that are carried out within highly restrictive contexts, characterised by few viable alternatives' (2007, p. 85). Chandrasekhar appears to be aware that the impact of any action he and his family can take may be

limited, and is quick to assign responsibility for more purposive action to the government; yet, in the face of the environmental hazards presented to the family by clogged drains and rubbish-infested mud, his responses show how he and his father take the few courses of action available to them in the physical and political environment he describes.

These examples show children exercising agency by acting on their environmental concerns through the relatively narrow range of possibilities available to them in the contexts from which they spoke; voicing these concerns to others and making clear their awareness of the need for change, (considering) raising these concerns with political actors who might be able to do something about this or engaging in practical action to minimise the immediate source of the problem. The stories presented by Rahul and Chandrasekhar in particular highlight their awareness of the limitations of individual action and the need for government interventions, and expose the narrow focus of simply calling on individuals to act in responsible ways to keep their environments clean. Despite this, their responses show how both children and their families were doing what they could where they perceived there to be insufficient action from those with relative power to make more far-reaching changes. Their stories show how, even in constrained circumstances, children were not entirely without agency to act. Their agency is 'thin, rather than [...] non-existent' (Klocker, 2007, p. 92).

Reducing household resource consumption

Many children taking part in this study demonstrated familiarity with the idea underpinning many policy initiatives and popular presentations of environmental concerns that individual households must act to reduce resource consumption in light of growing concerns over environmental impact. The ways in which some children, particularly relatively affluent children, embedded references to actions that they were taking, had taken or felt they could take to reduce their individual consumption of resources has already been seen in some of the examples presented above. However, when invited to reflect on the impact that they felt these actions might make to the problems they described, some

children challenged the idea that individual action could make a difference commensurate with the scale of these problems.

In a group discussion carried out at their independent school in rural England, Ben, Oliver and Rosie highlighted their awareness of the scale of the environmental problems they spoke of and their sense of relative powerlessness to be able to act on these. One way in which they did so was in their response to a hypothetical vignette that I shared with them. In this vignette, presented in each school group activity and amended slightly between contexts to fit with children's everyday experiences of journeys to school, an eleven-year-old boy asks his parents to drive him to school as he does not like the school bus. His twelve-year-old sister protests that this would cause pollution and thus harm the environment.³⁶ In this particular school group activity, discussion arising from the vignette led children to critically consider the difference that one fewer car on the road might make to reducing 'global warming':

Ben: So I think global warming (.) I (.) I believe it's going to happen, but – of (.) of course it is, it is happening and (.) things like – I can't remember, it's like thirty years, all the plants in this world will have, uh, dried up or whatever.

Catherine: Mmmm.

Ben: And, a–a–and I think (.)

Oliver: You can't stop –

Ben: Yeah, that's really scary but (.) I can't do anything about it. At the moment.

Catherine: Yeah. I guess that's such a big thing that what could one person do about it?

Ben: Yeah, mmm.

Rosie: Mmmm.

Ben: A–and the thing about CO2 emissions (...) if we, if we don't drive to school (.) then we're doing our tiny, tiny bit.

Catherine: Mmmm.

Ben: But it requires much more than that tiny, tiny bit to (.) make a change.

Independent school group discussion, rural England

In this extract, Ben demonstrates his awareness of 'global warming', using the example of the loss of plants to communicate this. As he elaborates his response, however, Ben presents a position of powerlessness to do anything

³⁶ The full text of this vignette is included in the research protocols in Appendix Four.

about this problem, supported by short interventions by Oliver and me. Although Ben subsequently revises his position from not being able to do ‘anything’ to one where he considers that he and others around him might be able to make a ‘*tiny, tiny (.) change*’, his repetition of ‘*tiny*’ makes clear his assessment that this action is insufficient to ‘*make a change*’ to global warming. In a separate group discussion carried out in Callum and Helena’s state school, Callum presented a similar position, in contrast to Helena and other children’s support for the ‘pro-environmental’ stance presented by the girl in the vignette:

Callum: There's millions and millions of cars in the world and it's, like, just one more car on the road isn't going to make a difference.

Callum, 11, state school group discussion, rural England

Ben’s reference to not being able to do anything ‘*at the moment*’ may be a reference to his generational positioning, although he did not expand on this. This position was more directly elaborated by Rosie in the same discussion, as she spoke about renewable energy:

Rosie: We get told that we should be doing this (.) um, we should be doing renewable resources. And, well, don't tell us that. You should be telling the people who have got the big factories that, because while we're at this age, we won't be able to do anything until we're a lot older. And it's – you're telling us this, we know this but (.) we can't do anything about it (.) [at the moment =

Catherine: = Yeah. Yeah].

Ben: Er, but I – I think (.) I think that if you contrast that, it's kind of good to raise awareness.

Rosie: Yeah.

Catherine: Mmmm.

Ben: That actually it is happening.

Independent school group discussion, rural England

In this extract, Rosie extends Ben’s assessment of the inadequacy of how they as (generationally positioned) individuals might respond to the knowledge that they receive about environmental problems ‘*at the moment*’. However, Rosie also embeds an alternative proposal into her assessment– ‘*you should be telling the people who have got the big factories that*’. This illustrates Rosie’s

assessment that action should not wait until her own generation become old enough to do something about 'global warming', and moreover that action needs to come from those with more power to make a difference. By constructing an alternative course of action, Rosie can be seen to exercise agency in this extract.

Children's awareness of the limitations of their agency to influence others also came across as some children stressed that they could not control what others did, but only act responsibly themselves. This was seen in how Aamir elaborated what he thought could be done in response to vehicle use, something he presented as a major cause of climate change and pollution in his interview:

Catherine: Do you have any ideas or any theories about why changes in the environment are taking place, for example, changes in the climate?

Aamir: Yeah, the more – it's like the more you use your vehicles, which are powered by, uh, fuel generated by the fossils, and the more you use that, the more the climate is going to change, the more it's going to be harmful for us, and if we reduce the usage by having – like for short distances, people tend to use motorcycles (.)

Catherine: Mmm

Aamir: That's really wrong. You use – you can actually use cycles and reduce the pollution, right?

Catherine: (Mmm (*softer*))

Aamir: So ('in turn') makes the environment better (.) But one [is] doing that thing, another's not following, it's like no use. Everyone should do it all together.

Catherine: Mmm, mmm

Aamir: They should cooperate, but no.

Catherine: So is there anything that could be done to change that do you think or is it just down to individuals to make their own changes?

Aamir: Yeah, it's up to the individual to, uh, if he wants to do it, he'll surely do it, but if he has made his mind that 'No, I'm just going to use this' – the vehicles – uh, we can't help it (.) We can just show them the right way, but we can't, um, change what they want to do.

Aamir, 12, individual interview, Hyderabad

In this extract, Aamir moves from his elaboration of motorised vehicle use as a major cause of climate change and pollution to propose a solution – '*you can actually use cycles [for short journeys] and reduce the pollution*'. However, as Aamir continues to discuss this, he identifies a problem – some people follow

this logic, but others do not. His resultant assessment that *'it's no use'* may not be a total rejection of his proposed solution (indeed, he later goes on to defend this as *'the right way'*), but shows Aamir's awareness that no one proposed course of action can serve as a panacea for such a widespread problem as vehicle use. Prompted by my question, Aamir offers a final assessment that it is up to individuals to make their own decisions on how they reduce vehicle use – *'it he wants do it, he'll surely do it'* – and suggests that all the environmentally concerned individual can do in response is to *'show them the right way'*. Aamir's assessment is in many ways coherent with the individualistic focus found in much environmental policy, as each person simply tries to do what they can in response to what they know about environmental problems.

An assessment made by Gomathi on the need for greater enforcement of traffic rules, leading from discussion of how her local area could be made better, also echoed this individualistic logic:

Catherine: Are there any other ways in which you would like to see change in the local area, any other ways which you think your local area could be made better?

Gomathi: Stopping, uh, following traffic rules, uh, smoke pollutions, other pollution, to stop this.

Catherine: And whose responsibility do you think it is for those changes to happen?

Gomathi: Prime Minister

Catherine: The Prime Minister? OK. So what do you think the Prime Minister should do, for example, to reduce the air pollution?

Gomathi: He should give some rules to follow. He should give strict warning to people to follow these rules.

Catherine: And do you think people would follow the rules, or do you think people would still break the rules?

Gomathi: Uh, some people will follow and some people will break.

Gomathi, 12, individual interview, Hyderabad

Gomathi's responses here indicate an understanding, perhaps based on her experiences of chaotic traffic around her home in Hyderabad, that even when the person communicating *'the right way'* to do things is the Prime Minister (presented here as an indexical figure of authority), the *'strict warning'* that he gives still might not lead to widespread changes in how individuals use vehicles. Gomathi's assessment that *'some will follow and some people will break [the*

rules] coheres with Aamir's distinction between those who do things *'the right way'* and those who do not. By presenting the need for changed practices in the area of vehicle use, Gomathi perhaps implicitly includes herself in the group of people who might follow the rules, yet like Aamir she also presents an understanding that although acting responsibly may do good at an individual level, this decision may have relatively minimal impact on what others do, and ultimately in making the necessary differences to how vehicles are used in her area.

Overall, the examples presented across this section illuminate children's awareness of the gravity of environmental concerns, their situated understandings of the causes of these concerns and, sometimes, their proposals for possible courses of action to alleviate these. Children engaged in different ways with the 'canonical narrative' of individual responsibility to act on environmental concerns, and often presented themselves as doing what they could to act responsibly, within the constraints of what was possible. Children's engagement with this narrative was often critical in nature as they recognised the limitations of their own and others' agency to influence others or even, in some cases, to act responsibly within the structural conditions of their own environments (as seen in Rahul's example of not being able to dispose of rubbish adequately around his home). Whilst children did not always explicitly draw on their generational positioning to explain these limitations, the ways that children's capacities for negotiation might be limited in relation to adults in the spaces of their everyday lives may have influenced their understanding of these limitations.

Children's more critical responses, and in particular the construction of alternative scenarios for action, serve as one way in which children could be seen to exercise agency in the research activities by vocalising the knowledge they had and using this to identify limitations to dominant policy messages. Although perhaps a 'thin' agency, insofar as children's responses shared in research activities may make minimal difference to how they and others experience environmental problems, these responses are important to consider in progressing understandings of the ways in which children might respond to expectations of being 'agents of change' in their homes and communities.

7.4: Discussion

Whilst environmental education is unlikely to lead to a generation of environmentalists, this chapter, together with Chapter Six, highlights the value of educating children about the environment and how it is changing in response to human-led activities. As seen in Section 7.1, the knowledge gained from school-based environmental education activities or from other media may lead children and their families to consider the environmental impact of their own and others' everyday practices, and to make 'pro-environmental' changes in their everyday lives. For such action to take root in the household and for practices to become sustainable, family members must work together, involving ongoing negotiations between generations where children may have to work hard to get their points across amidst small conflicts and understandings of parents having greater environmental knowledge and maturity. The varying physical and structural affordances of the home and surrounding area may also shape the agency of children and their families to act on environmental knowledge.

Section 7.2 presented situated examples of how children's assessments of their agency to pass on messages about environmental concerns to those outside of the home vary according to how children assess their generational and social positioning across spaces and in relation to others in these spaces. This supports the work of scholars who have presented a relational understanding of agency that is attentive to how 'young people's experiences of agency change depending on who they are with, what they are doing and where they are' (Robson et al., 2007, p. 144; see also Mayall, 2002; Plows, 2012; Punch, 2007a; Valentine, 2004). Examples in this section show how factors such as parental support, community cohesion and awareness of interdependence (as seen in Dharani's stories of community members passing 'pro-environmental' messages between one another) and the formal establishment of child-led initiatives within school or other spaces may support children's potential to act as 'agents of change'.

Overall, however, even in spaces where children feel supported to take 'pro-environmental' action, the children in this study appeared to be aware of the limitations of their actions in relation to the scale of the environmental concerns

of which they spoke. Thus Section 7.3 argues that children's agency to act and influence may be considered as a 'thin' or constrained agency and some children's agency is 'thinner' than others (Klocker, 2007). Children's attempts to act regardless of their awareness of the limitations of what their actions may achieve demonstrates commitment from a number of children to 'make a difference', even where this difference may be simply speaking out environmental concerns and exposing the limitations of simplistic solutions to researchers and other participants in the research activities. Whilst this may not make children 'agents of change', it does show them to be acting with some degree of agency.

Close attention to children's narratives in this chapter illuminates both the potential and the limitations of children's agency to 'make a difference' by acting on what they know about the environment. A number of children spoke of doing what they could to 'make a difference', and their actions should be taken seriously. However, as Ben cogently argues in the example presented above, '*it requires much more than that tiny, tiny bit to make a change.*' Children's narratives highlight the need for sustained and widespread action from those with relatively more power to change for good how individuals experience their environments in the present, and how they might experience these in the future.

Chapter Eight: Discussion and conclusions

This chapter discusses the findings of this research in relation to the overarching aims and questions outlined in Chapter One. In Sections 8.1 - 8.3, I review the substantive aims and research questions in turn to present the overall contributions to theoretical knowledge made by the research, which I set out in Section 8.4. I then turn to the methodological aims of the research in Section 8.5 and consider what unique value narrative, multi-method and cross-national methodological approaches might offer to further research into environment and children's everyday lives. Following this, in Section 8.6 I summarise some of the implications for policy and practice highlighted by the research. I end the chapter – and the thesis – with some closing reflections on the research and what it has achieved.

8.1: Children's varying experiences of environmental hazards

The context within which this study was undertaken is one in which the narrative of 'climate change' is increasingly used in global governance to describe the environmental degradation that climate scientists have causally linked to intensified resource use by humans, particularly in the industrialised world (Intergovernmental Panel on Climate Change (IPCC), 2014). This narrative is used to draw attention to the risks posed by these crises to the sustainability of human life (Stern, 2006; United Nations Children's Fund (UNICEF) UK, 2013; World Bank, 2012). It also serves to highlight socioeconomic inequities, as households with relatively lower consumption (across global contexts) are often more immediately exposed to environmental hazards than those with a greater range of material resources to protect themselves from hazards (Ananthapadmanabhan et al., 2007; Manteaw, 2009). This inequity has a generational dimension as today's children, who have contributed little to the resource use causally linked to climate change, are amongst the most vulnerable to climate-related risks to human health (Haines et al., 2006; UNICEF, 2013). They will also live with the effects of climate change, which are

predicted to intensify over time, throughout their lives (IPCC, 2014; Renton & Butcher, 2010).

The first substantive aim of this research was *to explore and highlight the local particularities of how 'global' environmental concerns are experienced, understood and narrated by children in varied contexts in order to consider the intersecting local-global factors that contribute to situated environmental vulnerability*. This aim is articulated through the following research question:

1. How do children's narratives of everyday life generated in different contexts highlight the varied ways in which they are positioned in relation to different environmental concerns, and how might this variety affect their responses to such concerns?

The study shows how children's narratives of everyday life offer detailed insights into the affordances of their environments; that is, what the spaces comprising these environments and the resources contained in them offer children, for good or ill (Chawla, 2007; Gibson, 1979). Across contexts, children's narratives suggest that their uses of different spaces are mediated through previous experiences, including of localised environmental hazards contained within these spaces, parental regulations and their responses to social norms relating the appropriateness of particular spaces to their gendered and generational identities, which – as the longitudinal analyses for *Young Lives* show – change over time. These findings contribute to ongoing theoretical work on the factors that co-constitute 'children's emotional geographies' (Blazek & Windram-Geddes, 2013; Kraftl, 2013). In particular, they show how the physical qualities of children's environments and the objects they contain play an important role in shaping children's memories of, and ongoing use of, particular spaces within their environments.

This study builds on existing work concerned with illuminating commonalities and differences in children's everyday lives across minority and majority world contexts (Chawla, 2002; Panelli et al., 2007; Punch & Tisdall, 2012, 2013). In common with this work, the study shows how the possibilities and constraints

encountered by children in negotiating their everyday environments link to 'physical, socio-cultural, economic and political' processes that are both local and global in scale (Punch et al., 2007, p. 217). Across the contexts of this research, there were commonalities in how children communicated their enjoyment of some of the natural affordances of their environments through speaking of, depicting or guiding researchers to favourite trees, fields and parks in research activities. The research also highlights overarching commonalities in the environmental hazards that children communicated in and through these activities. For example, across contexts children expressed concern over air and noise pollution produced by motorised vehicles or industry, restrictions posed by traffic to their independent mobility, the sight and smell of discarded rubbish, and how weather events impacted on their activities at certain times of year.

Alongside these areas of commonality, the research highlights important differences in the situated risks that children recounted or imagined in relating why these hazards were of concern to them, and the temporal and spatial immediacy of these risks. Some differences can be traced to climatic differences between Andhra Pradesh and England, such as the difficulties for mobility presented by ice and snow in England and the dangers presented by wild animals and fever-carrying mosquitoes in Andhra Pradesh, particularly during rainy seasons. However, children within the same locales were differentially exposed to these risks according to whether they lived in relative affluence or poverty. These differences illustrate how the structural management of the natural environment (or lack thereof) can mitigate or exacerbate children's exposure to environmental hazards in ways closely associated with the purchasing power of households and community investment in public resources (such as rubbish disposal, sanitation and provision of clean water). Whilst structural processes are often distal, and so link to places beyond those immediately experienced by children (Ansell, 2009; Massey, 1993, 2005; Punch et al., 2007), children's narratives show clear examples of how exposures to environmental hazards are lived in the everyday and interpreted in the immediate socio-spatial contexts of their lives.

Some children (all living in conditions of relative poverty in Andhra Pradesh) spoke of leaking roofs or floodwater routinely entering their homes at certain times of the year, sometimes bringing mosquitoes or wild animals in their wake. These children's narratives illuminate some of the intersecting climatic and structural factors that mitigate or protect families from situated environmental hazards, and highlight the fragile nature of human-constructed material arrangements to protect against the negative affordances of the natural world. This resonates with observations made by environmental sociologists of how events causally linked to climate change expose the limitations of a minority world belief in 'human exemptionalism' or imperviousness to environmental conditions (Dunlap & Catton, 1994; Manuel-Navarrete & Buzinde, 2010; Szerszynski & Urry, 2010). Children's narratives also show the particularity of the structural factors that strengthen a belief in human imperviousness to environmental events amongst those positioned in locations that are relatively less affected by environmental degradation or those socio-economically positioned to remove themselves from the worst effects of this.

Children's differing access to material interventions that can mitigate their exposures to local hazards and other forms of environmental vulnerability (such as resource scarcity) can also be seen through the contrasts underpinning children's narratives of daily activities. One example is children's talk of journeys to school, where some children spoke of travelling to school in air-conditioned vehicles whilst others recounted holding a handkerchief to their noses to minimise the smell of sewage, rubbish and traffic pollution when walking alongside these hazards. Children's everyday narratives also highlight contrasts in their differing uses of electricity, where watching television, using heating or air-conditioning and using virtual devices was an embedded part of everyday life for many children, whilst some children in Andhra Pradesh constructed their daily routines (both discursively and in practice) around the scheduling of state-regulated electricity. These contrasts illuminate variety in the relational configurations of technology, human practices and the natural world across the sample and shows how everyday practices are adapted according to these varieties (Schatzki, 2010; Shove et al., 2012).

As a number of scholars have noted, material interventions to reduce individuals' exposures to localised environmental hazards often have ecological consequences which are felt by those for whom these interventions are financially unattainable (Guha, 2006; Myers & Kent, 2004; Shiva, 2006; Stephens, 1996). One example seen in this research is the use of cars to travel in cities, offering the chance to travel with some protection from exposure to air pollution, yet increasing this air pollution and causing those who cannot afford cars to be 'doubly disadvantaged' (Stephens, 1996, p. 14). The benefits and hazards of cars were referenced by most children in Hyderabad (and to a lesser extent, in the other research sites) in discussing their journeys to school and experiences of the outdoor environments around their homes. Children's differential positioning in relation to these benefits and hazards is a clear example of the localised inequities of environmental vulnerability, which link to wider socioeconomic processes shaping the demand and availability of vehicles and normative understandings of these as a 'necessary' part of everyday life (Shove, 2003; Shove et al., 2012; Urry, 2007). This is one of a number of examples generated by the research that illuminate the inseparability of the global and local environments by showing how children's experiences of environmental vulnerability link to global processes, yet are felt and narrated in localised ways (Ansell, 2009; Massey, 1993, 2005; Punch et al., 2007).

In summary, this research illustrates how, in an age of 'global' environmental concern, all children are exposed to forms of environmental degradation, yet the immediacy of this exposure is mitigated for some children by their geospatial and socio-economic positioning, and the material interventions this may afford. The research highlights the importance of understanding environmental concerns in context, considering how these concerns are lived out by children in the everyday, and calls for policy interventions to tackle the ways in which existing socio-economic inequities are reproduced in inequities in children's exposure to environmental degradation.

8.2: Children's situated understandings of environment and environmental concern

This thesis has repeatedly shown that today's children are growing up surrounded by messages about 'the' environment, how it is changing and what they and others can do about this (Horton et al., 2013). Environmental education is a major policy vehicle for these messages, premised on the notion that increased knowledge of environment concerns will support children to act as 'pro-environmental' change agents (Chawla & Cushing, 2007; United Nations Educational Scientific and Cultural Organisation (UNESCO), 1997; Uzzell, 1999). Environmental messages reach children in multifarious ways (Bartiaux, 2009; Satchwell, 2013), reflecting the different extents to which these have been 'mainstreamed' across contexts into policy discourses, media representations and public understandings of human security (Manuel-Navarrete & Buzinde, 2010; Threadgold, 2011). Although frequently presented in relation to global(ising) environmental narratives, there is great variety in how these messages are locally communicated and interpreted, resulting in numerous 'situated knowledges' of environment (Haraway, 1991).

Despite great policy interest in environmental education, there is relatively limited research that explores how children interpret messages communicated through environmental education, particularly in majority world contexts. In minority world contexts, studies by Byrne and colleagues (2014), Threadgold (2011), Hayward (2012) and Wilson and Snell (2010) are useful exceptions, showing children's interpretive capacities in receiving and making sense of environmental messages. The research reported in this thesis offers further insights into children's situated responses to environmental messages, leading from the second substantive aim of the study; *to progress understandings of children's interpretive capacities by attending to how children construct situated understandings of environment through drawing on their everyday experiences and engaging with socially-constructed knowledge of 'environment'*. This is articulated through the following research question:

2. In what ways do forms of knowledge presenting the environment as an object of concern enter into children's lives, and how do children reconcile these forms of knowledge to their embodied experiences of their environments?

Chapters Four to Seven offer insights into the forms of socially-constructed knowledge that children engage with in making sense of their environments and 'the' environment. Chapter Six presents four major areas in which children in this study related coming into contact with forms of environmental knowledge: school initiatives (classroom-based learning and extra-curricular activities); discussions of environmental concerns at home; government interventions and laws regulating household resource use; and media presentations of environmental concerns. There were contextual differences in the content of environmental knowledge related by children and in the relative importance they accorded to each of these areas in shaping their understandings. However, the research shows overarching commonalities in techniques of environmental governance across contexts and in how children are accorded a central role in sustaining such techniques, as all children in this research were able to relate instances of being encouraged to present environmental knowledge to those around them.

The study shows how children's understandings of environment are shaped by situational influences which may help them to make learned knowledge meaningful to their everyday lives, or cause them to reject this. Whilst conflicting interpretations of environment across spaces caused some children to question the knowledge presented to them (as seen, for example, in Callum and Oliver's rejection of the causal link between individual reductions in car use and significant reductions in air pollution), continuities in the knowledge valued across the spaces of children's everyday lives appeared to consolidate their understandings. This was seen as some children (notably the relatively more affluent children in both countries) related messages learned at school or seen on television to justifications shared by themselves or other family members for carrying out everyday practices in particular 'pro-environmental' ways. Social influences could be seen as many children recalled the voices of authoritative others (family members, politicians, journalists or teachers) in explaining a

particular environmental concern. The ways in which particular forms of knowledge may be associated with the symbolic authority of individuals and institutions reinforces Foucault's point that 'there is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time power relations' (1977, p. 27).

In spite of the power relations imbuing environmental knowledge, research discussions highlighted children's interpretive capacities and their agency to reject as well as contribute to 'canonical' narratives of environment, that is, 'understandings of current consensus about what it is acceptable to say and do in their local and national cultures' (Phoenix, 2013, p. 73). Children drew on their embodied experiences to present learned environmental knowledge as personally meaningful, for example, by narrating experiences of breathing 'pure' air in forested areas to present the loss of trees as a concern, or using their bodies as a 'narrative resource' to explain the effects of pollution (Hyden, 2013). Conversely, some children drew on everyday experiences to reject environmental messages, for example, Anand who rejected the apocalyptic message of the *2012* film by saying that he hadn't seen the events of the film happen in the world around him. This resonates with research showing that environmental messages that are too big or too distant from children's lived experiences can cause them to 'turn off' and can encourage 'two-track thinking' between individual and planetary imagined futures (Threadgold, 2011).

It is perhaps unsurprising that children who were most immediately affected by environmental hazards in this research did not usually focus on the global or longitudinal effects of these by situating them in a broader narrative of 'climate change'. Instead, they focused on how these problems affected their lives and those of others around them in the lived present, and in some cases how the structural deficiencies of their environments (for example, irregular rubbish collection or the lack of adequate sanitation) prevented them from engaging in practices that might reduce their exposure to these hazards. This was also seen through working with *Young Lives* data on children living in poverty, which contain numerous instances of how they embedded references to situated environmental concerns into their accounts of everyday life. Relatively more affluent children, who were less immediately affected by environmental hazards

through their geo-spatial or socio-economic positioning (or often both), engaged more readily with temporally and spatially expansive narratives in presenting environmental concerns. Some children drew on hegemonic symbols of environmental concern (such as polar bears, endangered species, the Amazon rainforest or the moon) to present temporally and spatially distant concerns in imaginative ways, where lived experiences were insufficient to achieve this discursive work.

Children's differing use of globalising narratives and images of environmental concern highlights the uneven relevance of these to children's lives, which calls into question the extent to which they can be considered 'global' in scope (Ingold, 2000; Peet et al., 2011; Shiva, 1993). Temporally and spatially expansive narratives of environmental concern constructed by (generally more affluent) children also show how distance from environmental concerns can be discursively – as well as physically – constructed. By focusing on events understood or imagined to take place in other places and at other times, relatively more affluent (and occasionally, relatively poorer) children were able to construct a subject position of responsible awareness and concern without entering into the complexity of ways in which they may be affected by or contributing to environmental degradation. For these children, engagement with environmental concerns appeared to be understood and presented as a moral subject position motivated not primarily from necessity but rather a sense of responsibility, as discussed by scholars who have attended to 'environmentality', or how technologies of environmental governance might be seen to cultivate moralised 'environmental subjectivities' for individuals (Agrawal, 2005; Hobson, 2013; Middlemiss, 2014, drawing on Foucault, 1991 [1978]).

Clearly, responsibility and necessity are not mutually exclusive in motivating environmental concern, and children who were more immediately exposed to environmental hazards also embedded references in their narratives to responsible actions they had carried out. Nonetheless, some structural patterning can be seen across the sample in how children made claims to (more abstract) responsibility or (more immediate) necessity in making environmental concerns meaningful. Their environmental concerns are interpreted and

narrated in ways that reflect individuals' partial and embodied experiences, resulting in 'situated knowledges' of environment that were co-constructed between speakers (Haraway, 1991; Phoenix, 2013; Stoetzler & Yuval-Davis, 2002).

8.3: Children's agency to enact environmental knowledge in everyday practices

One of the starting points of this study is a recognition that much policy literature promoting environmental education relies on a largely underexplored understanding of children as 'agents of change', using their 'pester power' to influence household practices (Satchwell, 2013, p. 298). Although some studies allude to child-adult relations as one factor mediating the uptake of pro-environmental messages in homes (for example, Bartiaux, 2009; Percy-Smith & Burns, 2013; Uzzell et al., 1994), environmental education research has so far accorded little sustained attention to the 'generational ordering of social relations' in everyday life (Alanen, 2003, 2009). The notion of children as agents of change has moreover been strengthened in some contexts by researchers who have co-designed opportunities for children's participation in locally-based activities to improve their environments (for example, Hart, 1997; Lolichen et al., 2006; Malone, 2013; Percy-Smith & Burns, 2013). Whilst this work is valuable in many ways, it can be argued to sustain a focus on children's agency that is primarily informed by examples of children's participation in 'institutionally defined moments', and attends less to children's negotiations of agency in everyday decision-making (Nolas, 2015, p. 161; see also Ansell, 2009). In addition, by focusing on the local dimensions of environmental problems, this work overlooks the extent to which many environmental problems are entrenched in unsustainable social and economic structures which are beyond any individual's or group of individuals' capacities to resolve (Maniates, 2001; Newell, 2012; Shove, 2010a).

This study considers the relational and societal influences on children's capacities to enact environmental knowledge. In doing so, it aims to build on sociological work on children and young people's generational and other

structural positioning (Alanen & Mayall, 2001; Mayall, 2002; Oswell, 2013; Punch, 2007a; Robson et al., 2007). The third research aim of the study was *to critically consider theories of children's agency by bringing these theories into interplay with children's assessments, shared through accounts of everyday practices and negotiations, of their own and others' agency to act on expressed environmental concerns*. This aim is articulated through the following research question:

3. How do children's accounts of everyday negotiations with those around them highlight the complexities for children of enacting 'pro-environmental' knowledge?

Data presented in this study offer clear examples of how children's attempts to enact environmental knowledge involve negotiation with those around them, as they take place in spaces shared by multiple actors. In particular, this research generated insights into the home as a primary space for children to negotiate everyday practices with family members. Across the sample, different factors motivated family (re)negotiations of everyday practices in changing conditions. In resource-constrained households, families made clear that practices were negotiated around the availability of resources, and environmental messages of voluntary reductions in consumption understandably had less relevance in their discussions of everyday practices. For families where much of everyday life was structured around resource-intensive practices, discussions prompted by research activities illuminated the difficulties encountered by households as they attempted to adapt practices to accommodate messages of reduced consumption. A small number of families (notably Humphrey and Helena's families, both in England) sustained relatively consistent narratives across research activities of having adapted practices – and the very space of the home – in response to environmental knowledge. However, most families' accounts suggested ongoing negotiations and acknowledged inconsistencies in attempts to accommodate environmental knowledge into everyday practices.

In some contexts (for example in Rosie's family), children's status as learners of 'new' environmental knowledge and the symbolic elision of childhood with futurity appeared to support the uptake of environmental messages shared by

children at home (Evans & Honeyford, 2012; Kraftl, 2008). Family negotiations of practices resulting from 'new' environmental knowledge furthermore illustrated how the home serves for many children as a key site in which to develop social competences and agency through participating in the social order of the family (Mayall, 2001, 2002; Punch 2007a; Valentine, 2004). In both countries, the study nonetheless indicates that children and their parents had normative understandings of adult roles in mediating environmental knowledge and making 'final' decisions over household practices in response to this. This was frequently seen in family responses to the water use vignette (a hypothetical story of a child telling his or her parents to use less water at home), as well as in children's peer group discussions of taking environmental messages into their homes. That parents are understood to have greater responsibility for making decisions about household practices is not necessarily a problem – to suggest otherwise would be to put undue responsibility on children – yet it is important to note the disjunction between this understanding and a common policy focus on children as agents or 'catalysts' of change in households (Ballantyne et al., 1998; United Nations Children's Fund (UNICEF), 2008; Uzzell et al., 1994).

Examples presented in this research suggest that changes to household practices are perhaps more likely to be sustained when family members are collectively engaged in enacting these, although children and other family members' accounts of individual and collective attempts to make 'pro-environmental' changes to practices often included references to how these attempts led to small and ongoing conflicts between family members. This finding builds on arguments that agency is supported and enacted through family relationships of interdependence, within which children and other family members understand themselves to be mutually engaged in activities for the household (Boyden & Crivello, 2012; Dyson, 2014; Katz, 2004; Punch, 2001, 2007a). Many such observations are informed by research with children and families in majority world contexts of relative poverty where families work together to manage limited resources (as in the studies referenced above). Insights from this study show the ways in which family members in contexts of material sufficiency also work together – sometimes through conflicts, disagreements or 'nagging' – in negotiating practices in response to

contextually-situated environmental messages. These insights support empirical observations that, across contexts, 'individualisation is not as widespread in people's daily lives, or as universal an experience as theories imply' (Middlemiss, 2014, p. 939; see also discussions by Dawson, 2012; Jamieson and Milne, 2012; Oswell, 2013; Tisdall & Punch, 2012).

Outside of the home, children's accounts showed how they weighed up decisions over whether to 'speak out' according to whom they were speaking. For example, Anand spoke of how he did not feel comfortable telling residents of households that he assessed to be more affluent than his own (and perhaps more established in the community) to clear their rubbish, whereas Mamatha, who had lived in the same community all her life, related scolding younger children for using the nearby park as a toilet. A different example was shared by Helena as she related her deliberations over whether to enact her 'right' as an 'eco-rep' to tell older students and teachers to turn off lights and use less paper. These deliberations show that, despite initiatives promoting children's participation, societal spaces continue to be generationally and socio-economically ordered in many ways and there are very few circumstances where children are on an 'equal footing' with adults (or indeed, with one another) (Robson et al., 2007, p. 141). Children's deliberations also suggest they are not passive or unaware of the need for changes to their environments and the practices taking place within them. Rather, they suggest that children weigh up their capacities to 'make a difference' (Mayall, 2002) before speaking out, taking into account what doing so might achieve as well as the potential risks (for example, embarrassment or getting told off) this might provoke.

Close attention to how children positioned themselves in the narratives they constructed in research activities highlights how children used research activities to engage in discursive processes of identity construction and to exercise 'agentic choice' in what events to relate and what subject position/s to take up for themselves in reconstructing these (Byrne et al., 2014; Phoenix, 2013). Some children used research activities to draw attention to the inaction or corruption of authority figures they assessed as having relative power to resolve environmental problems, whilst presenting themselves as doing all they could in the constrained circumstances created by such inaction or corruption.

Examples are Chitra and her peers' complaints about shopkeepers giving them plastic bags, Rahul's criticism of the lack of rubbish disposal around his home, Rosie's observation that information about renewable energy should be directed towards factory owners and Ravi's incisive observation of the local-level corruption mediating community members' access to water in his interview for *Young Lives*. These children's inclusions of such observations in research activities show their political awareness and agency, as do other children's calls for indexical figures of authority – teachers, shop keepers, politicians and factory owners – to lead higher-level interventions commensurate with the scale of the environmental problems they spoke of. These observations could be read as instances of children refusing a 'canonical' narrative of individualised environmental responsibility for resolving entrenched environmental concerns.

In summary, children provided many examples of attempts to respond to the environmental concerns they expressed in the research, whether immediate concerns affecting their families (as in *Young Lives* and amongst relatively poorer participants in the new data collection) or temporally and spatially expansive concerns learnt at school or through other media. Children's attempts to act on environmental concerns involved negotiations with others around them and were thus complicated in practice, although inter-generational cooperation appeared to 'thicken' some children's agency (Klocker, 2007). Concurrent to talk of their own actions, children demonstrated political agency through asserting their awareness of the need for collective action and for 'pro-environmental' leadership from those with relatively more power to enact structural changes.

8.4: Contribution of this study to theoretical knowledge

This study set out to consider how children across varied contexts are positioned in relation to situated environmental concerns, how they make sense of socially-constructed knowledge relating these concerns to 'global' narratives and how they assess their agency to act on environmental concerns in their everyday lives. These areas of interest present a relatively under-explored arena for understanding children's agency in an era of environmental concern, bringing together interests in how children negotiate agency as interdependent

actors (Balagopalan, 2011; Punch & Tisdall, 2012; Robson et al., 2007) and the relationship between humans and the natural world in conceptualising human agency (Manuel-Navarrete & Buzinde, 2010; Redclift & Woodgate, 1997; Szerszynski & Urry, 2010).

This study illustrates some of the factors that 'thicken' or 'thin' children's agency to act on situated environmental concerns and relates children's micro-scale interactions to broader social, political and economic processes (Ansell, 2009; Klocker, 2007; Punch et al., 2007; Robson et al., 2007). The study builds on existing work in childhood studies to show how family relationships and negotiations are a key site for children to enact agency through interdependent action (Dyson, 2014; Mayall, 2001; Punch, 2007a; Tisdall & Punch, 2012). The study also argues that children exercise agency not only at the point of action, but in the deliberative processes involved in deciding whether or not to act on environmental knowledge, as these deliberative processes involve political and social awareness (Nolas, 2015). Children's awareness of differences in the impact of individual and institutional action on environmental problems and their critiques of the actions of more powerful others suggest that children are not naïve about the power structures at play in and beyond the spaces of their lives, nor about their own capacities for mitigative action on environmental concerns. Rather, many children's narratives speak of the need for structural interventions to reduce the environmental vulnerability they and others experience in situated contexts.

Employing a case-based narrative approach to interpreting children's data, the study considers children's agency as knowing subjects and shows how children critically engage with forms of environmental knowledge, draw on their embodied experiences of environment and work with those around them to co-construct narratives of environmental concern and responsibility (Luttrell, 2010; Phoenix, 2013; Riessman, 2008). 'Real-time' family negotiations prompted by research activities illuminated some of the situated factors shaping interpretations of environmental messages. Amongst these factors are the perceived relevance of environmental messages to everyday life, how these messages conflict or collude with socially normative paradigms of behaviour and the extent to which individuals understand their enactment of such

messages to 'make a difference'. These factors show that across contexts, whether and how environmental knowledge is mobilised in households depends on more than simply children's 'negotiating power' (Punch, 2007a).

The study demonstrates the symbolic value of the natural world in sustaining the social construction of environmental concern and shows how the natural world can serve to enliven learned environmental concerns through its material affordances (Kraftl, 2013; Oswell, 2013). The study supports the arguments of scholars who consider that children's affective responses to their environments might be used as a foundation for promoting children's environmental care (Chawla, 2007; Hart, 1997; Malone, 2013), whilst cautioning against romanticised notions of the natural world by drawing attention to situated environmental hazards encountered by children. The study also highlights some of the ways in which children are already caring for their environments in ways that are interrelated with everyday practices of care for themselves, their families and others in more distant locales (Tronto, 1993). Examples include children's attempts to reduce 'non-essential' resource use, to care for natural phenomena such as plants, animals and trees, and to minimise their perceived contribution to localised environmental hazards. Although some children cited 'canonical' narratives of environmental concern to justify these activities, many children suggested they did these things because they recognised that these were in their own interests and those of their families. This strengthens scholarly conceptualisations of humans as interdependent actors, whose interdependence is lived out in relationships with other humans and with the 'non-human' world (Dyson, 2014; Manuel-Navarrete & Buzinde, 2010; Oswell, 2013; Shiva, 2006; Tronto, 1993).

8.5: Reflections on the methodology used in this study

Closely related to the substantive aims that have supported the generation of the theoretical findings outlined above, the research is also framed around a series of methodological aims. These aims – first presented in Chapter One, and elaborated in greater detail in Chapter Three – are designed to interrogate the ways in which the methodology and methods employed in this study have

helped to produce new substantive understandings, and to open new directions for further explorations of children's situated environmental experiences, understandings and agency. The methodological aims of this study are:

- To elucidate the potential of a narrative approach to explore children's agency, drawing on a range of research materials to analyse children's situated responses to the environmental knowledge with which they come into contact in everyday life.
- To use multiple qualitative methods to generate insights into the multi-sensory processes through which children come to know and value their environments.
- To consider commonalities and differences in children's situated environmental experiences and understandings through constructing a cross-national sample that incorporates various forms of structural difference and includes data generated for another research study.

This section considers how the methodological aims in this study were met and how they may be relevant to future research into children's environments.

The narrative approach to generating and analysing data in this study was intended to offer insights into children's interpretive capacities by attending to how they respond to particular environmental messages and interpret these in relation to their everyday lives. It allowed me to pay close attention to how children constructed new knowledge through their participation in research activities. In constructing new knowledge, children drew together situated environmental concerns (including those introduced in research activities by researchers) with their lived experiences. For example, children told 'small stories' to explain how they were personally aware of environmental concerns such as air pollution, wildlife loss and water shortage and reflected on valued aspects of their environments to imagine their own and others' futures in light of actual and projected environmental degradation. The narrative approach also allowed for attention to how children drew upon, rejected or highlighted the limitations of 'canonical narratives' of environmental concern and responsibility in the situated contexts in which they spoke. The varying ways in which children

across contexts used or problematised 'canonical narratives' such as wildlife loss, global warming and the need to reduce resource consumption shows both the widespread reach of these and their limited relevance to particular contexts.

Using a case-based narrative approach in this study enabled me to consider children's narratives across research activities for their situated particularity (Riessman, 2011). Reading children's narratives alongside one another offered a way of making 'the familiar strange' (Garfinkel, 1967) through illuminating the often taken-for-granted aspects of children's everyday lives in the situated contexts in which they spoke. One example of this was how some children's 'less familiar' (to me, as a minority world researcher) narratives of everyday life, which included embedded references to constrained mobility or practices in response to seasonal weather patterns or the daily scheduling of water or electricity, illuminated the ways in which other (relatively more affluent) children constructed their everyday routines around the taken-for-granted material affordances of their homes, schools and surrounding areas. The combination of thematic and narrative approaches used to analyse data also helped me to map the structural contours of children's differing exposures and responses to environmental hazards across the research sample.

The narrative approach to analysing data employed in this study also allowed for considerations of children's agency by attending to children's discursive practices: decisions made by children about what to tell in research activities and how to position themselves in the telling (Bamberg, 1997; Davies & Harré, 1990; Phoenix, 2013). Analyses presented above show a number of ways that children demonstrated political agency by telling 'small stories' that showed the limitations of what they as individuals could do in response to entrenched environmental concerns. Examples of this are Ravi's 'small story' of how local-level political corruption impacted upon the availability of water for his own household and other households in the community, Chitra's 'small story' of how shopkeepers continued to give her plastic bags despite the recent ban on these and Rahul's 'small story' of how rubbish containers were often taken away by local authority workers and not replaced in his community, meaning that households had no option but to throw rubbish in an open space. In each of these examples, children showed themselves to be responsible 'environmental

subjects' (Agrawal, 2005) by demonstrating their knowledge of how the concerns they spoke of impacted on their own lives and had the potential to impact on the lives of others, yet their stories also demonstrated their awareness of the limitations of what they could do about these concerns and the need for higher-level political action to address them.

The research design for this study supported dialogical learning across contexts through possibilities to carry out secondary analysis on qualitative data generated for *Young Lives* (YL). These data were not generated with 'the environment' as a primary concern, yet this proved to be theoretically valuable in the development of this study. YL data offer many instances of environmental concerns that populate 'global' environmental policy (for example, water shortage, flooding and seasonal migration). However, the relative absence in these data of talk about the 'global' environment (with some exceptions) allowed for insights into the ways that children narrated environmental concerns through their embodied experiences in and with their environments. Understandings gained from early work with YL data in this study made me more attentive to the variety of ways that children expressed environmental concerns in the later phase of new data generation. Working with these data and with local researchers in Andhra Pradesh in both phases of work for this study also helped me to interpret the contextually-specific narratives and forms of environmental knowledge shared by children in Andhra Pradesh.

The work of a number of researchers who have used narrative approaches to analyse a variety of data types in recent years has shown the potential of such approaches to attend to how individuals construct meanings through multiple discursive and multi-sensory processes (Bell, 2013; Cele, 2013; Luttrell, 2010; Riessman, 2008). In designing this study, examples of this work resonated with observations made by a number of researchers that multi-method approaches can allow for more holistic understandings of children's lives, as children narrate aspects of their lives through a range of media and activities (Ansell & van Blerk, 2007; Clark, 2004; Punch, 2002b, Änggård, 2015). In this study, children and other participants used interviews, discussions, maps, photographs and mobile interviews to present their environments in a variety of ways. Amy's detailed map, constructed in a school mapping activity in rural England and

presented in Chapter Five (Image 5.10) is one example of how children used visual means to communicate their feelings about their environments and to support their verbal narratives. Photographs, walks and maps also illuminated aspects of children's lives that may not otherwise have come to light in research activities, and helped to extend the verbal narratives they constructed. For example, Dharani's photograph of her roof in her home in Andhra Pradesh (presented in Chapter Five as Image 5.2), showing a number of household objects on the beams of the roof, supports her family's explanations of how they prepared for heavy rains by moving valued objects to protected spaces within their home. The rich and varied visual research materials generated for this study indicate possibilities for further analytic work exploring the construction of children's narratives through these materials and the verbal accounts they prompted.

The multi-method research design for this study, carried out across four research visits and in a range of spaces making up children's everyday lives has greatly aided my contextualisation of children's narratives in interpreting and analysing these narratives. The mobile approach to generating data in particular allowed for embodied insights into the affordances of participants' everyday environments. Spending time outdoors in particularly hot or cold conditions (as well as indoors amidst frequent power cuts in the heat of the Indian summer) and walking on uneven pavements amidst heavy traffic, along narrowly-lit roads or through overgrown areas where there was a risk of snakes and other wild animals made research conditions more challenging, yet these first-hand experiences highlighted some of the ways that environmental hazards and forms of vulnerability are embedded in children and families' everyday lives.

Working with children across spaces and with peers and other family members also enabled insights into children's differing social positioning with different people and in different sites, shown partly by the ways in which children spoke and were heard in research activities. Research methods involving the collective completion of activities – such as reaching a collective consensus on photographs selected to represent families' environments, or discussing what might happen in a hypothetical vignette – prompted 'real time' negotiations and disputes which supported the holistic approach I took to analysing the stories

and accounts shared by children. Families' negotiations, considered alongside other accounts of their everyday practices shared by children and families in research activities (sometimes in response to a particular environmental message or 'canonical narrative'), also highlighted a disjuncture between what people do and what they say they do (Phoenix, 2011) and showed the complexities of putting environmental knowledge into action (as also found in studies by Groves et al., 2014; Pink, 2012). This has implications for environmental policy as discussed below.

The above reflections are intended to illustrate some of the ways that the narrative, multi-method and cross-national methodology used in this study has enabled me, in collaboration with other researchers, to make the contributions to theoretical knowledge outlined in sections above. Furthermore, whilst by no means the only way to carry out research in these areas, the approaches comprising this methodology and how they have worked together in this study offer a number of promising directions for future research into children's experiences and understandings of environment and their agency to enact environmental knowledge.

Whilst there has been a considerable amount of school-based research to explore and support children's capacities for 'pro-environmental' action (for example, Percy-Smith & Burns, 2013; Hiramatsu et al., 2014; Malone, 2013; Vaughan et al., 2003), much of this work has proceeded in ways that are abstracted from the everyday spaces and practices of children's lives and as a result may produce relatively idealised accounts of children's capacities to enact environmental knowledge and to act as 'catalysts of environmental change'. By carrying out this research with children in a range of spaces and with other children and adults, I have built on work that considers why children's role in the processes through which environmental messages are shared and interpreted across spaces may be more complicated in practice (Bartiaux, 2009; Satchwell, 2013; Uzzell et al., 1994). In particular I have attended to children's generational and other structural positioning and relations by using a number of research activities to elucidate the everyday complexities for children of 'carrying' environmental messages across spaces.

The research also attended to the lack of cross-national work exploring children's environmental understandings and concerns, and in particular to the paucity of work in this area in majority world contexts, by constructing a multiply varied sample in two countries. In constructing the sample in this way, researchers on the *Family Lives and the Environment* study and I sought to overcome dualistic understandings of the ways that relatively rich and poor children might be considered as either 'victims' affected by, or 'villains' contributing to, particular environmental concerns. In contrast to such dualistic understandings, the narrative, case-based approach employed in this study allows for understandings of children as knowing environmental subjects with agency, living and acting alongside others in situations of varying material, social and ecological constraint.

8.6: Implications of this study for policy and practice

This study has taken place over a historical period where 'sustainable development' has become the principal goal of global governance, as indicated by activities such as the Decade of Education for Sustainable Development (2005-2015; UNESCO, no date) and the recent ratification of the 'Sustainable Development Goals', which are envisaged to shape global governance activities for the next fifteen years (United Nations Department of Economic and Social Affairs (UNDESA), no date). The study echoes civil society calls for governments of both countries to take into account localised inequities in resource consumption in making sustainable development policies (Ananthapadmanabhan et al., 2007; Preston et al., 2013). In doing so, it lends support to the arguments of Indian environmentalists who have called for sustainable development to be brought in line with ongoing poverty alleviation initiatives in India (Saran & Jones, 2015; Srivastava, 2009, 2010; The Energy Research Institute (TERI), 2014).

Narratives of everyday life generated with children living in highly constrained and vulnerable circumstances in this study highlight the urgent need in some contexts for structural interventions such as improved water and sanitation, adequate facilities for rubbish disposal, better street lighting and paved roads, all of which might be feasibly incorporated into national 'sustainable

development' agendas concerned with reducing everyday forms of environmental vulnerability. The narratives of children living in relatively less constrained circumstances in both countries offer further suggestions for structural interventions that might improve their quality of life and that of those around them, for example, greater controls on transport use in cities to reduce pollution, improved maintenance of parks and other green spaces, more public transport in rural areas and government-led investment in renewable energy sources. Children's calls for structural interventions are significant in light of a global sustainable development agenda that has been criticised for its focus on what individuals can do about environmental problems to the detriment of calls for collective and government-led action (Guha, 2006; Maniates, 2001; Middlemiss, 2014; Shove, 2010a).

As well as presenting structural interventions to reduce situated environmental vulnerabilities as an ethical imperative, this study highlights how context-specific government interventions may be practically necessary in order to support household adaptations to everyday practices, as is envisaged in national sustainable development policy frameworks (Ananthapadmanabhan et al., 2007; Department for Environment, Food and Rural Affairs (DEFRA), 2008). This could be seen in some children's expressed frustrations at wanting to act in 'pro-environmental' ways, yet being constrained in their attempts to do so by unsustainable 'elements' configuring the everyday practices they related (Shove et al., 2012). The everyday contradictions between policy and practice articulated by children provide situated examples of ways in which everyday life is configured in ways promoting practices at odds with the policy aims of sustainable consumption and citizen-led environmental care and thereby limiting children's (and others') chances to meet these (Satchwell, 2013). This highlights the wisdom of Shove, Pantzar and Watson's vision of 'practice-oriented policy making', based on recognition of the extent to which state actors 'influence the distribution and circulation of materials, competences and meanings', and are thus well-positioned to introduce 'policy interventions [that] may increase the chances that more rather than less sustainable ways of life persist and thrive' (ibid, p. 163; p. 146). As the authors note, however, this model of policy-making is marginalised by the reliance on individual behaviour

choice that underpins much sustainable development policy (ibid, see also Satchwell, 2013; Shove, 2014).

The study highlights a need for environmental awareness and education activities to reach adults as well as children, as it presents numerous examples of how adult family members were frequently understood by families in this research to have the 'final' say over decisions relating to everyday household practices and were more likely to support proposed changes to practices introduced by children where the messages supporting these resonated with their existing understandings. The study shows that the idea that adults will access and act on environmental knowledge primarily through their children is problematic, and underplays the generational structuring of household negotiating power (Alanen, 2009; Mayall, 2002, 2009; Punch, 2007a). An alternative approach might be to invest in community, televisual or web-based awareness-raising on environmental concerns, which generations could access together.

Despite the difficulties related by children in their attempts to act on environmental knowledge, the study shows many children's and adults' responsiveness to calls for voluntary reductions in resource consumption and other citizen-led environmental care activities. The study shows how children's participation in these activities can be supported by initiatives such as eco-clubs where children are able to take an active role in sustaining their environments in school and community spaces, yet it also highlights children's own awareness of the limitations of such initiatives, which fit with how Nolas describes a children's rights agenda structured around children's participation in 'institutionally defined moments' (2015, p. 16). The study draws out the ways that some children used their environmental knowledge to highlight inconsistencies in the activities of more powerful individuals. Leading from these insights into children's political agency and critical thinking, the study echoes the arguments of environmental education researchers such as Hayward (2012), Hart (2012) and Huckle and Wals (2015) that the goal of environmental education needs revision from a singular focus on supporting children's 'values, behaviour and lifestyles' to wider attention to children's 'power, politics and citizenship' (Huckle & Wals, 2015, p. 497). A particular challenge for policy and

practice highlighted by the study is how environmental education might inform children's awareness of environmental concerns and empower them to hold those with relatively more power to account, whilst also supporting children's own ongoing participation in pro-environmental activities.

Here, it is useful to turn to recent work by Middlemiss (2014) exploring possibilities for more 'socially-sensitive' approaches to sustainable development. Middlemiss draws attention to empirical work suggesting that in contexts where individualism as a political subjectivity has been strongly encouraged, policy interventions can support a sense of moral agency through 'build[ing] a sense of virtue around individual acts' (2014, p. 941). This observation must be read together with all of the caveats highlighting the limitations of individual actions in response to environmental problems outlined across this thesis. However, it has some resonance with how children in this study constructed narratives of moral agency and responsiveness to environmental messages, and to how these narratives indicate the interrelation between children's care for the environment and their practices of self-care and care for others (Tronto, 1993). 'Socially sensitive' environmental education might therefore be envisaged as a policy intervention that builds on children's existing ethics of care to support a sense of interdependent agency and an appropriate level of environmental responsibility.

8.7: Closing reflections

Undertaking this study has been a deeply enriching experience which has enabled me to learn from participants' and other researchers' 'situated knowledges' of environment whilst becoming more aware of my own. The study has shed light on the relationships, emotions, experiences and structures that shape my attempts – and those of the children and families I worked with in this study – to reconcile our everyday environments with what is often presented in globalising ways as 'the' environment. It has also highlighted areas of inconsistency and contradiction between my own environmental understandings and everyday practices, which have helped me to contextualise, empathise with and make sense of children's narratives of (constrained and sometimes

inconsistent) environmental responsibility and care in an age of increasing environmental degradation and concern.

Over the course of completing this study, policy presentations calling on children and other individuals to make changes to their everyday lives in response to environmental messages have intensified in parallel with growing concerns over 'climate change' and other forms of environmental degradation. The need for high-level action on climate change is more pressing than ever. Over twenty years on from the Rio Earth Summit, and through many iterations of political negotiations at other high-profile global summits, culminating in that taking place in Paris as I write, little concrete action has been achieved, and the current generation of children are growing up with a greater level of uncertainty about the condition of our planet and its capacity to support human life than any before.

Children's narratives generated for this study show, in different and highly situated ways, their responsiveness to environmental concerns through practices of care for their environments, alongside their awareness of the need for high-level structural action to achieve what they (and we) as individuals cannot, and create the conditions for all individuals to prosper and live in harmony in and with our environments. The major achievement of this thesis is to show that children's voices, missing from the Paris summit, are crucial if the debates taking place in Paris and in the many subsequent environmental summits and negotiations which will inevitably take place over the years to come are to result in positive change at local and global scales.

References and appendices

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Appendix One: Studies to which this PhD is linked

Narratives of Varied Everyday Lives and Linked Approaches (NOVELLA)

This PhD study is one of the research outputs of *Narratives of Varied Everyday Lives and Linked Approaches* (NOVELLA), a cross-institutional Phase III research node funded by the National Centre for Research Methods (NCRM) from 2011-2014 (ESRC number RES-576-25-0053). NOVELLA was directed by Professor Ann Phoenix, UCL Institute of Education, who is one of my PhD supervisors. NOVELLA brought together research partners at UCL Institute of Education, the Centre for Narrative Research at University of East London, Sussex University and *Young Lives* in the UK and India.

NOVELLA comprised three main research projects, which shared substantive and methodological aims; substantively, they were concerned with improving understandings of habitual and often taken for granted family practices in areas making up everyday life; parenting identities and practices; family food practices; and family practices in relation to environment. All three projects involved secondary analysis of data generated across varied socio-historical and cultural contexts, which enabled attention to how family practices are 'cultural, social and negotiated in context' (Phoenix, 2011). Methodologically, the projects aimed to develop narrative and linked approaches to the study of everyday family life through focusing on how family members in varied contexts work together to construct accounts of everyday life in relation to the three thematic areas of the NOVELLA projects. For a full list of projects, team members and outputs of NOVELLA, and more information about the node, please see www.novella.ac.uk.

I have benefitted greatly from being a member of the NOVELLA research team, and was able to contribute to the programme of methodological training and capacity-building events coordinated by NOVELLA over the course of the node, as detailed below.

Family Lives and the Environment

Family Lives and the Environment (FLE) was one of the three main projects embedded within the NOVELLA research node, and was led by Professor Janet Boddy, University of Sussex, who is one of my PhD supervisors. The overarching aims of FLE are to improve understanding of the negotiated complexity of families' lives in relationship with their environments and to illuminate meanings of 'environment' in everyday family lives and practices carried out in varied contexts in India and England (Boddy, 2013; Shukla et al., 2014). This work proceeded in two phases, the first of which involved secondary analysis of a selection of qualitative data generated for *Young Lives* (see below) and the second of which involved new data generation in India and England.

This PhD study has developed as an integral part of FLE and shares a research sample and research design, as detailed in Chapter Three. Researchers with whom I worked on FLE were Helen Austerberry, Hanan Hauari, Claire Cameron, Ann Phoenix and Natasha Shukla (UCL Institute of Education), Janet Boddy (University of Sussex), Gina Crivello, Virginia Morrow and Emma Wilson (*Young Lives*, University of Oxford), Madhavi Latha and Uma Vennam (Shri Padmavathi Mahila Visvavidyalayam, Tirupati, India; *Young Lives* India) and Renu Singh (*Save the Children* India; *Young Lives* India).

Young Lives

Young Lives (YL) is a longitudinal international research study investigating the changing nature of childhood poverty amongst a sample of 12,000 children and their caregivers in rural and urban communities across Ethiopia, Peru, Vietnam and India (Andhra Pradesh and Telangana states). The study (running from 2002 until 2017) was designed as a child-focused quantitative cohort study following two cohorts of children over a fifteen year period. A qualitative research component with a sub-sample of 200 children drawn from both cohorts in the four countries was introduced in 2006. YL is hosted by the University of Oxford and is core-funded by the UK Department for International Development (DFID) from 2001-2017, Irish Aid from 2014-15 and the Netherlands Ministry of Foreign Affairs from 2010-2014. For more information about YL, please see www.younglives.org.uk.

Contribution of this study to NOVELLA outputs

Events

Family Lives and the Environment dissemination workshops for researchers and policy makers, New Delhi and Hyderabad, January 2015.

Family Lives and the Environment/ Energy Biographies joint analysis day, Cardiff University, November 2013.

Presentations

Environment as a way into exploring children's narratives of self and space: Emerging analyses from fieldwork in India and the UK. Centre for Narrative Research Graduate Seminar Series, London, May 2014. Available to access at <http://www.novella.ac.uk/resources/1254.html>

Reflections on transcribing for narrative analysis. Centre for Narrative Research, University of East London, London, April 2014.

Climate victims, villains or both? Children's narratives of environmental vulnerability and responsibility in everyday life. British Sociological Association Annual Conference, Leeds, April 2014.

Revisiting Young Lives data with a narrative lens: What insights does a narrative analytic approach offer to children's talk about everyday life and growing up in Andhra Pradesh, India? Centre for Narrative Research Graduate Seminar Series, London, November 2012. Available to access at <http://www.novella.ac.uk/resources/1208.html>

(with Joe Winter) *Canonical narratives of good and bad in everyday life.* National Centre for Research Methods Festival, Oxford, July 2014.

(with Joe Winter) *Becoming reflexive researchers: An experiment in research collaboration.* Narratives of Varied Everyday Life and Linked Approaches (NOVELLA) Conference, Oxford, July 2014.

Publications

Walker, C. (2014) 'Photo elicitation as part of a multi-method research design: Family Lives and the Environment in Andhra Pradesh, India'. *Sage Research Methods Online*. Available to access at <http://srmo.sagepub.com/cases>

Walker, C, Boddy, J and Phoenix, A. (2014) 'Walking and talking: Mobile methods for understanding families' everyday environments in India and the UK'. *NCRM Methods News, Autumn 2014*. National Centre for Research Methods: Southampton. Available to access at <http://eprints.ncrm.ac.uk/3699/1/MethodsNewsAutumn2014.pdf>

Appendix Two: Pen portraits of schools attended by new research participants

Government school, Hyderabad

This school was located in a densely populated semi-peripheral area with a high prevalence of rural migrant families. The area included a number of officially 'recognised' and 'unrecognised' slums, as well as some newly constructed government housing complexes and private housing. Just over 400 students were registered as attending the secondary school (sixth to tenth class) and there was a primary school in the same complex. In line with government policy, the school offered Telugu and English-medium teaching, and classes were separated accordingly. The school charged no fees to students beyond a one-off fee of twenty-five rupees to enter national school leaving examinations and served free lunchtime meals as part of the government's 'Midday Meals' scheme.

Fee-paying private school, Hyderabad

This school was located in an area of central Hyderabad that the principal described as an 'educational hub'. The school was housed in a large three storey building set back from a busy main street with no outdoor space. The principal explained how students travelled from all across the city to attend the school. The school placed great emphasis on preparing students for entry into medical, engineering and information technology (IT) university courses and accordingly offered a 'techno-syllabus' as well as the standard State Secondary Education (SSE) board syllabus, which was taught in English. Around 750 students were registered at the school, which catered for sixth to tenth class. The fees for seventh class at the time of the research were approximately 32,000 rupees per year.

Fee-paying international school, Hyderabad

This school was located in a spacious green campus in what had once been a peripheral area of Hyderabad, in close proximity to the city's Information Technology hubs and with easy access to the city's newly constructed outer ring road. Much of the immediate area around the school was under construction at the time of the research. The school prided itself on providing what the principal described as a 'holistic' education, incorporating a wide range of arts and sports-based activities as well as the core syllabus. The school was in the process of applying for international school status at the time of the research, and planned to adopt the Cambridge Examination (CE) syllabus. Around 1,300 students, between lower kindergarten (LKG) and Upper Intermediate (twelfth) class, were registered and fees for seventh class at the time of the research were around 100,000 rupees per year.

Government school, rural Andhra Pradesh

This school was located just outside a village in a largely agricultural region and was situated within expansive grounds with a concrete playing area and surrounding fields. Teachers recounted that most children travelled by bicycle or on foot from the village and surrounding area and this could be seen in the full bicycle rack at the entrance to the school. The school charged no fees and offered free lunches to students as part of the government's 'Midday Meal' scheme. Around 500 students were registered between sixth and tenth class and the school offered Telugu and English-medium teaching.

Fee-paying private school, rural Andhra Pradesh

This school was located in a campus within a small town serving as a commercial and educational hub for smaller villages across the region. The school had over 1,300 students from LKG to tenth class, and a separate engineering college. The principal described the school as the foremost school in the region for preparing students for engineering and medical university degrees. Around ten per cent of the students attending the school stayed in boarding accommodation. The school offered a range of recreational activities,

including daily yoga and dance classes. Most teaching in the school was in English, although the school offered a 'bridging' period of Telugu-medium teaching for students who had joined the school after attending Telugu-medium primary schools. Annual fees for seventh class at the time of the research were around 7,500 rupees.

Fee-paying international school, regional city, rural Andhra Pradesh

The third school selected as part of the 'rural' fieldwork in India was an international fee-paying school located in the regional capital (a city of over one million residents) of the agricultural region where the schools described above were located. The decision to include a school in the regional capital was taken to allow for the perspectives of children whose families may have relocated to the city for educational and employment purposes, but which retained strong financial and familial links to ancestral land. This school was located amongst a cluster of international schools on the outskirts of the city and was situated within a large campus which included a swimming pool, skating area, sports pitch and guest house. Over seven hundred students were registered at the school, from LKG to tenth class. According to the principal, most students travelled from within the city to attend the school, although some lived in the surrounding countryside. Teaching was in English, and annual fees for seventh class at the time of the research were 24,000 rupees.

State school, rural England

This state school was located in a large village in Southern England, connected by a main road to a larger town with good transport links to major cities. Although many children attending the school lived in the village, the school also had a network of private buses serving a relatively large surrounding area populated by smaller villages and hamlets. The contact teacher explained that some students from surrounding villages travelled for up to two hours per day to get to and from school. The school was known for its environmental activities, led by a member of the community and an enthusiastic team of student 'eco-reps'.

Independent school, rural England

This school was located in a large campus in rural Southern England, with views over the surrounding countryside. The school's teaching was underpinned by a holistic approach to learning where, as the head teacher explained, values such as being a 'risk-taker' and having self-discipline were as of much value as achieving high marks. The school's commitment to holistic learning was complemented by an extensive array of extra-curricular activities and opportunities for students to get involved in philanthropic activities both within and beyond the local community. The school operated a system of 'flexi-boarding' where day students could board at the school for one or two nights per week.

Schools in London

The children included in this study living in London (Humphrey, Tamsin and Kofi) attended three separate schools, two of which were private and one of which (attended by Tamsin) was a state school. Although the research team made contact with the children through their schools, the team was not able to carry out research activities in any of the children's schools due to constraints on the time available to schools to assist with the research.

Appendix Three: Ethical approval for this study

I received notification by email that my ethics application for secondary analysis of *Young Lives* data had been approved:

From: Pui Sin
Sent: Wed 09/05/2012 14:25
To: Catherine Walker
cc: Ann Phoenix; Janet Boddy

Dear Catherine,

Please see comments from Marjorie Smith who was the reader for your ethics application. I can confirm approval has been received.

Best wishes,
Pui

Pui Sin
Research Student Administrator
On behalf of the Faculty of Children & Learning Research Ethics Committee

I received notification in a letter attached by email that my ethics application for primary research had been approved:

By email
29 October 2012

Dear Catherine,

Ethics approval

Project title: Family Lives and the Environment: Children's everyday experiences, understandings and practices of the environment in two cultural contexts.

I am pleased to formally confirm that ethics approval has been granted by the Institute of Education for the above research project (second stage data collection). This approval is effective from 29th October 2012.
I wish you every success with this project.

Yours sincerely,
Pui

Pui Sin
Research Student Administrator
On behalf of the Faculty of Children & Learning Research Ethics Committee
cc: Janet Boddy; Ann Phoenix; IOE Research Ethics office

Appendix Four: Copies of information sheets and protocols of research activities

Information sheets for participants

The information sheet included on the following page is the English language version of the sheet given to families who participated in (or considered participating in) research activities in Andhra Pradesh. I produced a similar information sheet for students who participated in school group activities. Both sheets were translated into Telugu and English or Telugu-language sheets were shared with participants according to their preferences. Similar sheets were produced and shared with participants in England, which included photographs of all researchers involved in research activities in England.

Following the completion of the research, I also produced a sheet summarising what I had found in the research and shared an English or Telugu-language version of this with all research participants.



Leading education
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Institute of Education
University of London



FAMILY LIVES AND THE ENVIRONMENT IN INDIA AND THE UK

What's happening?

A research team from the UK and India is carrying out a research project to learn about families' ordinary everyday lives and their relationship to the environment. It is a study of families that include 11-12 year old children (in 7th class at school). We are talking to families in rural and urban areas in the UK and Andhra Pradesh in India. By talking to families in very different places, we hope to learn about the variety of ways in which people experience the environment in their family lives.

Why is this research being done?

Governments and international organisations often make policies about the environment and what individuals and families should do to help with environmental issues without understanding how complicated everyday family life is. We hope that by understanding ordinary family lives better, our research can help policy makers in India and the UK to learn from each other and to develop policies about families and the environment.

What you are being asked to do?

We would like to talk to your family so we can learn from you about your experiences of where you live, that is, your local environment and the things you do from day to day, and how those experiences might or might not connect to bigger environmental issues such as climate change. If you decide to take part in the research, we would make one visit to your child's school and three visits to your home over a period of one and a half weeks. Each visit would last for 1-1½ hours, arranged at times that suit your family. We would like to speak to your family as a whole, and specifically with your 11-12 year old child and with the parent who spends most time with your 11-12 year old child. When we visit you, we will use different methods to help us to understand your family life – talking with you, making maps and asking you to take photographs of your daily life.

What happens to the information you provide?

If your family agrees to take part, everything you say and the information you provide will be kept confidential and will be stored safely and securely, so only the research team will have access to it. We will use the information that families provide to write reports explaining what we have learnt from doing the project and about everyday family lives in different countries and different situations. In these reports we will remove the names and any other identifying

details of the families we talk to, so you cannot be identified. With your permission, we would also like to store the information you give us – with all identifying details removed – for other researchers to learn from in the future. However this is not a requirement of taking part in the study.

Do you have to take part?

No. It is completely up to you whether or not you take part in our research. If you do agree to take part, you are free to change your mind if you want to stop at any time. Taking part in the research will not directly help your family, but we hope that you will enjoy taking part, and that the study will help others in the future by helping policy makers to understand family lives.

Who is doing the research?

The researchers are based at the Institute of Education (IOE) in London, the Universities of Sussex and Oxford in the UK, and Shri Padmavati Mahila Visvavidyalayam, Tirupati. The project is part of a larger research group studying Narratives of Varied Everyday Lives and Linked Approaches (NOVELLA), based at IOE and funded by the UK government's Economic and Social Research Council. For more information, please see www.novella.ac.uk

The researchers carrying out the Family Lives and Environment interviews are:



Natasha Shukla



Catherine Walker



Madhavi Latha

Contact Natasha, Catherine or Madhavi if you have any questions about the project:

Email: novella@ioe.ac.uk

Telephone: [phone numbers removed]

Other members of Family Lives and Environment team are: **Janet Boddy**, Director of Family Lives and Environment, University of Sussex; **Ann Phoenix**: Co-director of Family Lives and Environment and Director of NOVELLA, Institute of Education; **Uma Vennam**: Professor of Social Work, Shri Padmavati Mahila Visvavidyalayam, Tirupati; **Virginia Morrow and Gina Crivello**, University of Oxford; **Rowena Lamb**: Project administrator, Institute of Education. **UK Telephone:** +44(0)20 7612 6921

NOVELLA, Thomas Coram Research Unit, Institute of Education, 27/28 Woburn Square, London WC1H 0AA, UK

Protocols of research activities for new data generation

Note: The activities detailed in the protocols below were led by the following researchers in the research visits I was involved in:

Visit One: Family discussion – Natasha Shukla (NS) and Madhavi Latha (ML) in India, Janet Boddy (JB) in England

Visit Two: Walk – NS, ML and myself (CW) in India, JB and CW in England; individual interview with child – CW and ML in India, CW in England (ML and NS also led a separate interview with the main caregiver at this visit in India, and this was led by JB in England)

Visit Three: Individual photo interview with the child – CW and ML in India, CW in England (ML and NS led a separate interview with the main caregiver at this visit in India, and this was led by JB in England); family photo discussion and closing discussion – ML, NS and CW in India, JB and CW in England.

School visit: CW and ML in India, CW and Helen Austerberry (HA) in England.

Visit One - Family discussion (with as many family members as present and willing to take part)

Family structure – 5 minutes

The aim of this section is to get a sufficient contextual frame for the remainder of the interview, in terms of family demographics. Do not probe for narrative at this stage, work through quickly.

To start, I've got a few quick questions to help us get a picture of who lives here. I don't need a lot of detail:

- Names, ages and relationships of all residents
- Who is working in household - within home and outside of home - and nature of work, and how many days/hours per week (approximately - to get a sense of full or part time)?
- How long have you lived in this house?
- How long have you lived in this area?

Meanings of environment -5 minutes

Try to get responses from each family member

I mentioned at the start that we are interested in what environment means in the context of family lives, and so I wanted to ask you just that – when I say 'environment' what does that make you think? What does that word mean for you?

Family cognitive map – 15 minutes

Aim is to get a collective construction of the family's cognitive map – the places they go, and that are significant for them in terms of their habitual family practices. This includes going to and from work and school, but work and school should not be probed in detail.

- Draw house in centre
- Use large sheet of paper (A1) and coloured pens for different people – each participating family member should have their own pen.
- Ask family members to draw places they go to regularly on the map concentrating on places habitually visited in locality but also including habitual journeys outside locality (use separate pen to label places)

When everyone has completed this:

- Ask about places they like and dislike
- What is this area like? What's it like living here? Probe for aspects of locality, e.g. neighbours/ friends in locality; likes/dislikes; schools attended by family children; shopping in locality; travel to school and (if appropriate) work.
- Probe if need be – for people going to work outside the home, and for people doing paid or unpaid work inside the home.

Key family practices (20 minutes)

We're interested in learning about the kinds of things that families have to take care of in their everyday lives – the things you have to do from day to day – and so I'd like to ask some questions about that. We'd like to learn a bit about how you manage these things in your family. For instance making meals, cleaning etc.

Can you tell us about a task that you consider to be important to your family? How is this managed?

Probe for:

- Who does what
- How things are discussed and agreed between different family members
- What kinds of considerations influence family practices – including environmental factors, price/cost, time, feelings/taste and preferences, evaluations (e.g., effectiveness of a product).

(If task talked about is done by an individual in the family)

- Tell me about a task where the work is shared amongst you?
- Are there any tasks in which children are involved? Tell me about these?

Use tasks below as prompts for questions above:

- Shopping/acquiring – everyday essentials (e.g., food)
- Shopping/acquiring – infrequent habitual (e.g. school purchases, religious/cultural purchases)
- Meal preparation
- Washing dishes
- Taking care of laundry – washing, drying, ironing, putting away.
- Cleaning the house including rubbish disposal
- Doing things for the house – e.g., repairs or buying things.
- Doing outside jobs – in the garden or fields

Busy times (5 minutes)

We know that families have busy lives, and there are times when people need to do the same thing and use the same space within a short time – like in the morning before school and work.

What times are like that in your family? How do you manage those times? How do you decide who does what when?

Prompts only if not mentioned spontaneously:

- What about bathing in the morning?
- Breakfast time or other mealtimes?
- What about getting homework done?

Vignette (15 minutes)

Try to get each family member's response to what would happen next in this story.

So we can learn more about everyday family lives as they relate to the environment, I would like to tell you a story about another family and get all your views on what happens next in the story. I want you all to feel free to respond even if your views differ from others in the family.

THOMAS/ RACHEL³⁷ is an 11 year old boy/girl (gender match to index child). (S)he lives in a family where they routinely use a lot of water, because his/her mother thinks it is very important for bathing and to keep the home clean. One day, THOMAS / RACHEL comes home and says that (s)he has been learning about problems of drought in the region, and that they need to use less water, to help with the water shortage. (S)he says this is very important.

- What happens next in this story?
- Do you think anything should change?
- Do you think anything would change?
- Do you think Thomas / Rachel would be able to influence how his / her family uses water?
- If yes, what changes would take place?
- What problems might arise in making these changes?
- What do you think your family would do in that situation, if [INDEX CHILD] did this?
- Can you give me an example of a time when [INDEX CHILD] asked you to make some changes at home? What happened?

To open up debate if family provides an abstract response to story:

But what if parents can't use less water for daily activities – how would parents explain to their daughter that they can't use less water?

If the family can't reduce water use are there any other ways in which they might help with the water shortage problem?

³⁷ Different names – Varun and Gita – were used in these activities in India.

Closing questions and explanations for cameras (5-10 minutes)

Thanks very much for taking the time to answer my questions. In a minute, I want to tell you about the cameras that I mentioned before, but first, I want to ask you:

- How you found our conversation? Do you think we've got a good picture of your family life?
- Is there anything we haven't asked about that you think we should know?
- Is there anything you'd like to ask me?

As I said before, we want to learn about your everyday life in relation to your environment, and one of the ways we want to do that is to ask you to take some photos over the next SEVEN DAYS. We've got three cameras for the family – one for [CAREGIVER], one for [INDEX CHILD], and one for the whole family. We would like you to take pictures of: the things that you use every day, things you like and don't like, and things that are important to you as a family; as well as the places that you go to in your everyday life, including places you like and don't like (*if necessary, give examples based on mapping activity*). The third camera is for you to use however you want – anyone can use it to take pictures of anything at all.

Visit two – Mobile interview (walk or drive) with index child and one caregiver; individual interviews with index child and caregiver

Mobile interview (30 minutes)

This walk or drive should be planned and led by the index child and caregiver (and siblings if they wish to join in), using the cognitive map drawn by the family at the first visit as a prompt for places to visit. Talk during this should be largely unstructured and led by the participants, but some questions to ask child and caregiver as prompts if necessary might be:

Place use

- What do you (like to) do here?
- Can you tell me more about this?
- Who do you come here with?
- How often do you come here?

Place feelings/values

- Do you like this place?
- How do you feel when you are in this place?
- What do you think it is about here that makes you feel that way?
- Has this place changed at all since you started coming here?
- Has that affected what you do here? How do you feel about this?

Place knowledge

- Who else comes here?
- What else is this place used for?

Interview with index child (30-45 minutes)³⁸

The aim of talking to you now is to get a little bit more information just from your perspective on the important things in your life and the things that take up your time, the place where you live, and about what we're calling 'big' or 'global' environmental issues, meaning things to do with the planet, the kind of things you might learn about at school.

As ever, I'd like to record this, but no one except for the researchers on the project will hear this recording. Is this ok?

During this activity, if you don't want to answer a question you can tell me that, and that is ok. Also, you should know that you can ask to stop at any stage and that is fine. You just need to tell me.

Check the recorder and start

Topic one – Activities and relationships at home (15 minutes)

The aim of this section is to get an overall picture about everyday life in the child's words. Allow the child to talk as much as possible and only probe as necessary

To start off with, I'd like to know more about the different activities that make up your day, and the people that you spend time with throughout the day. So we'll work through your day together, if that is ok.

Getting ready for school and coming home

- First of all, could you tell me about the things you do in the morning to get yourself ready for school?
- And can you tell me a little bit about your journey to school [*make reference to mode of transport used which child will have told in first family visit*]?
- Could you now tell me a bit about what you like to do when you come back home from school?
- Do you go to any after school clubs?
- Do you have homework you have to do? How long do you have to spend on this?

³⁸ A separate guidance sheet was used for the interview with the child's caregiver. As I have not analysed data generated through this activity in my study, I have not included this here.

(Possible probes – only use if necessary)

- Who gets up first in your house?
- Do you ever find it hard to get up?
- Is it hard getting to the bus stop on time?
- What is the best way that you find to relax when you get back from school?
- Does anyone help you with your homework?

Leisure time

- If you think about your time at home, what would you say are the fun things you like to do? [*If response involves TV show, game etc, ask child to explain it*] Can you tell me about the last time you did this?
- And how about time outside – you've just shown me some of the places you like to spend time on the walk, but is there anywhere else that you like going to that we didn't see on the walk? What do you do there?

(Possible probes – only use if necessary)

- Do you ever have friends over to your house? What kinds of things do you do together?
- Do you play with your brother/sister?
- Do you have a favourite TV show?
- Do you like going shopping [or other activities that came up in the family mapping activity]?

Helping at home

- Some children of your age have tasks that they do for the family, could you tell me if you have any tasks that you do?
- [*For each task mentioned*] Is that something you do every day or occasionally? *NB remember child's tasks may have already come up at first interview when asking about key family practices – if so, refer to them here.*
- [*Pick one task the child has named as doing regularly*] Can you tell me what is involved? Do you enjoy doing this?
- [*If child says they don't have any tasks*] Is there anything that you would like to do to help?

The end of the day

- You have told me a lot about the things you do during the day, is there anything else important that you do before going to bed in the evening?

GENERAL RELATIONSHIPS QUESTIONS (*only ask these if they haven't already come up in the areas above*)

- Overall, who would you say you spend most time with at home and what kinds of things do you do with this person? *[Try and get the child to talk about a specific recent example of something they did together]*
- Is there anyone in the family that you don't see much or don't spend much time with?
- If there was something that you were worried about, who from your family would you talk about this with? Can you remember the last time you did this? *[Try to get a recent example]*
- Is there anything that you have done for a member of your family that you feel particularly proud of?

Topic Two – Area around the house (10 minutes)

I'd like you now to think about the area immediately around your house.

- What do you like most about the local area?
- Can you think about any places near to your house that are out of bounds to you, or where you can only go with someone else?
- *[If child is unsure try and give some prompts – anywhere that isn't safe, anywhere you wouldn't want to go alone, anywhere that is dirty, anywhere you don't feel good, anywhere where children aren't allowed etc]* Have these places always been out of bounds to you or is this just recently?
- Could you tell me any ways in which your local area has changed since you first moved to the area or *[if child has always lived there]* when you were younger?
- Do you think there are any things that could be done to make your local area better, thinking about some of the things we have just talked about?
- Who do you think is responsible for making your local area better?
- Is there anything that you feel you could do to make your local area better?

Topic Three - Wider environmental issues (10 minutes)

We have thought a lot about the local environment, but when people talk about the environment, they can also mean things happening across the country and the planet as a whole which affect lots of people, such as problems caused by global warming or pollution or extreme weather events.

- Have you heard people talking about these kinds of things at school or on TV? What kinds of things have you heard about? *[Where 'big' issues come up, probe for how they know about them]*
- When you hear people talking about these things or learn about them in school, do you ever think that any of these things could affect your life in any way?

- Have you experienced any of these things personally, or do you know anyone who has done? [*If child gives an example*] Has this made you think about doing anything differently in your own life?
- [*If child is speaking confidently and has given specific examples*] Do you ever feel that the things that you do in your life have any effect on what is happening in the environment?
- If you think about the last year, have you experienced any changes in the climate to what you are used to? Could you tell me about this? [*Try and probe to get specific examples*] Have you done anything differently because of this?
- Finally, we have talked about [*name any examples of extreme weather events or changes in climate that child has talked about*] Do you have any opinions about why these kinds of events might be happening?
- Do you think this problem is better or worse in the UK than other countries? (*if child answers this question confidently*) Why do you think this might be?

At end of interview ask child if they have any questions and thank them for participating.

Reiterate that information shared will be stored securely and treated as confidential and that when we write about them in any published reports, we will not give their real name or the real names of any people or places they have mentioned that are specific to them.

Family visit three - Individual photo discussion with child and caregiver; family discussion and selection of photos

Individual photo discussion (carried out separately with child and with caregiver; up to 30 minutes each)

Go through each photo in turn, and say at beginning: If there are any you don't want to discuss, just say so and we will remove them from the pack (15 minutes).

Don't ask too much – simply: 'Can you tell me about this photo?'

Probes (only use if necessary, being aware of time – if there are a lot of similar photos, group these):

- What is it a picture of?
- What was in your mind when you took this photo?
- What does it make you think when you look at it now?

Spread out photos and ask (5 minutes):

- When you see your photos all together, do you think that these show all the places, people and things that matter in your everyday life?
- Is there anything that you think should be there as well?
- Are there any photos you want to remove from the pack because you feel these don't represent your everyday life?

What I'd like you to do now is choose five photos that you think can best help us to understand your family life and would like to discuss with the rest of the family. You can choose photos of things you like, and of things you don't like.

(10 minutes) Great – thank you very much for doing that. In a few minutes we'll take these five photos and go to speak with the rest of the family. Before we do so, I would like to ask you some questions about how you have found being part of this research project in general *[note child will have the chance to reflect on research process with rest of family at end of visit, but this is a chance for them to reflect on this individually]*:

- Over the last two weeks, we have met with you on a number of occasions and done a number of activities with you, some of them with your family, some of them on your own and some of them with your classmates from school. Can you remember all the things that we have done? *[stress this is not a memory test and help the child as necessary]*
- Was there any one activity which you enjoyed more than others? Was there anything you didn't enjoy?
- Do you think that the maps you produced with your family and your classmates, the photos you took, the walk you took us on and the things you have told me all give a good idea about your life and the things that are important to you? Is there anything else that you think we could have done with you to help us to understand more about your life?
- You've told me a lot about your life and the things that are important to you over the last three visits. But could you tell me what is most important to you in your environment – the place where you live and beyond? (And take a minute to think about this first if you need to)
- Is there anything that you would like to tell me about anything that is important to you that you don't think we've talked about?

Thank you very much for talking to me now.

Visit to child's school

Prior to this visit:

- Initial visit or phone call to school to make contact and start sampling process
- First visit to family of index children attending this school

At this visit:

- Brief discussion with principal or key contact to explain activities
- Group activity with up to six students (15 minutes rapport building time, 1 hour for activity)

- If time following group activities, brief tour of the school led by the six group participants (10 minutes)
- Interview with principal, class teacher or key contact to contextualise information given (if not done at initial visit; 15 minutes)

Group activity with two index children and up to four classmates

Introduction/ rapport building (10 minutes)

Introduce myself and get other team members present to introduce themselves. Explain where we are from. Ask children to write down their names on big pieces of paper and fold in front of them (conference style).

The three of us and some other researchers are working on a research project. Can anyone explain to me what a research project is? Invite responses from students and then to summarise, explain:

A research project is when people like us set a question for ourselves and go out into the world around us to try and find the answer. This often means talking to people who know something about the question they are trying to find the answer to, as we are doing with you now.

Does that make sense? So now I will tell you a little bit more about our research project and what we are trying to find out:

The project we are working on is called Family Lives and the Environment and it is being carried out in England and in India. In this research project we are talking to small groups of year seven children living in the city and the countryside in these countries because we want to understand the lives of year seven children. We want to know about what is important to you in your lives and the places you spend time and what difference the environment where you live makes to the things you do. And we know that environment can mean different things to different people, so one of the first things I will ask you if you agree to take part is what you think of when you hear the word environment.

We want to find these things out because these days there is a lot of talk about the environment and what we need to do to look after it. We think that people who make policies about the environment and families should know more about the lives of children, and that is why we would like to talk to you. We are not just interested in the things that you learn about environment at school, but about all areas of your lives.

Does anyone have any questions about this research project? Do you think that it is something that you can help us with?

Today we would like to do three activities with you:

- First of all I will ask you each to draw a map of your journey from home to school and then we will discuss these.

- Then we will talk about a story to do with two children's journey to school together.
- Finally I will ask you about some of the things you learn about the environment at school and in other places.
- (IF TEACHER HAS AGREED TO THIS IN ADVANCE: And at the very end, I'd like you to take me on a short tour around your school)

Does anyone have any questions about these activities?

Ok, now before you tell me whether you would like to participate in this activity, there are some important things that I need to tell you, so please listen carefully.

If you agree to take part in the activities, we would like to record the things that you say using this recorder. We will keep the recording safe and the only people who will listen to it are the three of us and our colleagues who are working on the research project with us in England and in India.

During this activity, if you don't want to answer a question you can tell me - just say 'pass' or 'don't know'. Also, each one of you should know that you can ask to leave or pause the activity at any stage and that is fine. You just need to tell me.

- Does anyone have any questions about any of what I have just said?
- So now you know about the activity and how you can participate in it, could you tell me if you are willing to talk to me today?
- Ok, so as I said I would like to record the things that you say today. Is this ok with you?
- When each child has consented, stop recording and listen back to consent.

Introductory question about the environment (5 minutes)

To start off our research, I'd like to ask you all what you understand by the word 'environment'. There is no right or wrong answer here, and you don't all have to agree. *(Try to encourage answers from each participant and to keep answers brief. Write these down as the students say them)*

Cognitive mapping (25 minutes)

Give each child a piece of paper and a coloured pen

Explain activity: I am going to ask you all to draw a map of your journey from home to school, including places you like and dislike on that journey. Then we will have a discussion about the places we have drawn. So first of all please

could you draw your school in the middle of the paper like this [*show example*]? You will need to use the rest of the paper so don't make it too big.

Now can you draw your house in the corner of the paper, and then connect the two together like this [*show example*]? If you live far from your school, draw your house far away. If you live near, draw it near.

Ok, now you have your house and your school on the map I'd like you to tell me how you get to school and how long it takes you [*note down this information for reference in the vignette activity*].

Now I'd like you to shut your eyes and imagine your journey to school. Think about some of the places that you pass on your way to school and in particular places that you like and dislike. Think about how you feel about those places.

Now, open your eyes and I'd like you to mark all the places you remembered on this line which represents your journey to school. Just add a small dot like this, and then write down next to the dot what this place is. Then I have some stickers here and I'd like you to stick a yellow sticker next to places you like and a black sticker next to places you don't like. If you need any help writing down the names of the places, we can help you. And when you finish your map, please put your name on it.

Now, I'd like you each to tell me briefly what are the places that you like and dislike on your map and why you feel this way about them. We will discuss these in more detail in a few minutes, so for now, please just tell us all the places you marked, starting with your likes and then your dislikes. As we do this, Natasha/Helen will write these down for us on the chart so we can all see them. *Natasha/Helen to keep a list of places that children like and dislike on one side of the big chart paper.* Alternate between boys and girls in asking them to list places, until the chart is complete.

Pick a common place or object from the likes list e.g. trees. Ask children to raise their hands if they included this on their map. Pick a quieter child who put their hand up and ask them to tell me what they think about this place or objects. When they have done so, ask the other children if they agree with how the first child explained the object or place and if they want to add anything about how they feel about this place [*If a lot of children have named this place, pick just one or two more children to comment on it*].

Repeat the activity with a common place or object that the children didn't like.

Depending on time and how engaged the students are, ask about another place – overall this activity should take no longer than 25 minutes. If children are quiet and not responding, try the following questions:

- Can someone tell me a place on this list that smells bad/ good?
- Can someone tell me a place that is noisy/ quiet?

- Can someone tell me a place that feels scary/ nice?
- Are there any places or objects which appear as both a like and a dislike? (*To children who listed these*) What is it that you like/dislike about this place?
- [To round off the activity - around 20 minutes in]: Does anyone feel there is anything missing from this list of places that is an important place in the area around here?

At the end of the activity, check children's names are on the maps and collect these.

Vignette (15 minutes)

I am now going to read you a story of something which might happen in a typical family living in this area and I'd like you to think about what might happen in this situation.

(for urban schools)

JACK is an 11 year old boy, with a 12 year old sister, ANNA³⁹. They go to the same school, and travel there on a school bus, which takes them an hour. JACK complains to his mother that he doesn't like the bus. He says it is crowded and noisy, and he gets upset when the other children are badly behaved. He asks his mother if they can go to school by car (or motorbike) instead. This would be much quicker.

When the family are talking about it at home, ANNA says that a teacher says that cars and motorbikes are bad for the environment because they make pollution which is destroying the planet. For this reason, ANNA says that she wants to keep taking the bus and she says that JACK should as well.

OR (for rural schools)

JACK is an 11 year old boy, with a 12 year old sister, ANNA. They go to the same school, and have to walk there, which takes them half an hour. JACK complains to his mother that he doesn't like to walk. He says it is tiring, and he gets upset when other children on the route are badly behaved. He asks his mother if they can go to school by car instead. This would be much quicker.

When the family are talking about it at home, ANNA says that a teacher says that cars are bad for the environment because they make pollution which is destroying the planet. For this reason, ANNA says that she wants to keep walking to school and she says that JACK should as well.

Now, I'd like you to discuss with the two people next to you what might happen in Jack and Anna's family. What do you think the family would decide to do

³⁹ Note different names – Lakshmi and Krishna - were used in the research in India.

about the children's transport and who would be involved in that decision? You will all have different ideas about this, and I am interested in hearing all your ideas, so it doesn't matter if you don't all agree.

After 5 minutes pick the group that has said the least overall up until this point and ask: What did you think would happen? Did you all think this?

Name others individually to try and get each child's views. Make sure to get children's views on the decision-making process as well as the final outcome.

Probes to get to this could be:

- Who do you think would make the final decision about the children's travel to school? Would it be the mother or the father or both parents together?
- Would the parents listen to Jack? Would they listen to Anna? Why/not?

After first group has spoken, move to second group and repeat questions as above.

Once both groups have spoken, probe for similarities and differences between individuals' responses, then relate responses to children's own use of transport to school [*refer to list made in mapping activity*]. Pick a form of transport used by at least one child and ask the children who use this form of transport to comment on how they find journeying by bus, train, bike, car or walking (as applicable).

Questions about environmental education (10 minutes)

In this story, Anna felt strongly that the children should go to school by public transport because she had heard at school that pollution caused by vehicles is bad for the environment.

- Do people ever tell you at school that something is good or bad for the environment?
- Can anyone give me an example of something that is good/bad for the environment, which you learnt about at school?
- [*If children are struggling here ask them about what subjects they learn about the environment at school in and the last thing they learnt*]
- [*For examples given*] Did you try saying anything about this to the rest of the family when you got home? If so, what happened?

Remember, trying for specific stories here, rather than lists of things learnt at school – if a particular child starts listing, stop them as appropriate and ask for a specific example.

Have any of you ever tried to make a change to something you do at home that is related to the environment, and found it difficult? What happened? *As above, looking for specific stories here. If these questions are bringing up lots of stories, encourage these and ask less questions in the final section.*

Thank you for sharing those stories with me. Apart from school, do you ever hear about things happening in the environment from anywhere else?

- *[If children are struggling to give an answer, refer back to the examples given above – e.g. do you hear about recycling from anywhere else?]*
- As we said at the start, environment can mean lots of different things, so it can mean the place where you live but it can also mean the planet.
- Are you aware of anything happening in other parts of England or other parts of the world that affect people's environments in those places?
- Do you have any other theories about why this might be happening?

At end of activities, ask children if they have any questions and thank them for participating.

If teacher has agreed to this, and children are willing and have time, ask children to take me on a 10 minute tour of the school.

Interview with the school contact (10-15 minutes):

As you know, the aim of our project is to learn about families' everyday lives and their relationship to the environment. We are working with families living in different national and local contexts but all the families we work with have a student in year seven.

We want to talk to families living in such different contexts because we want to know the variety of ways in which environmental issues are experienced and understood by different families. We think there is a need to understand family life in the context of policy-making about the environment.

As the school is an important part of particularly the child's life, but also somewhere where the parents may spend time, it would be helpful for us to get some more information about the school, so I would like to ask you some questions now.

- How many students are in the school, more or less?
- How far do students travel from to attend this school and what are the main forms of transport they use?
- Are students taught about the environment and if so in what subjects?
- Have the students ever participated in any environmental awareness activities in the local community?
- What would you like the students in this school to leave the school knowing and thinking about the environment?
- Is there anything else that you feel we should know about this school that will help us to understand the lives of the students we are working with here?
- Do you have any questions about our research?

Thank teacher for participation and reiterate that all information shared will be treated as confidential within the research team.

Appendix Five: Sample analysis of an extract of data

The following extract, which contains a ‘small story’ of conflict between Rosie and her father discussed in Chapter Seven (Section 7.1: Family negotiations of everyday practices), is taken from my individual interview with Rosie, aged 12, who was living in rural Southern England and attending a private school. In my thematic review of Rosie’s case data, I identified this extract of data as one speaking to my research interests in both negotiations of family practices and ‘canonical narratives’ of ‘pro-environmental’ practices. I analysed this extract using a line-by-line approach to consider the ‘canonical narratives’ contained within this extract, and how in this extract Rosie worked with and reframed these ‘canonical narratives’ in relation to her everyday life and in response to my questions.

C. OK. Sure. And do you feel like the things that you do kind of have any impact on what happens with the environment?

R. Switching lights (.) really. Just cutting down my energy use, because I know the television gets left on and no one’s watching it.

C. Mmmm.

R. And certainly lights get left on when no one’s using them. (And my dad goes round counting how many lights are on in the house (*said with a big sigh*)).

C. (*Catherine chuckles*)

R. And (.) um (.) he goes round every morning and goes, ‘One, two, three, four, five, six.’ (*Both laugh*). I just go, ‘Oh, shut up! I’m just trying to get some sleep!’

C. Yeah.

R. Um (.) but yeah. It (.) definitely I could cut down some things. Like it, I think (.) certainly, you know the story that you guys were telling us last week. I think (.) I could somehow make an impact by making sure my light’s been switched off, my water’s not (.) being on all the time, like my toilet (.) I - (well, I flush my toilet but (*quickly*)) maybe I don’t (.) um maybe I just don’t flush it as often, or, I don’t know (.)

C. Yeah. Yeah.

R. And I keep, if I want to um (.) warm the house up, I might use candles or something. And um (.) and, in terms of using the heating. And if I want to cool down I’ll just open a window without having to put like air conditioning on or anything.

C. Mmmm.

R. And – yeah, that might be better. And using the fire. I mean that's wasting wood, but at least that's better than putting the heating on because that's expensive.

C. Mmmm. Mmmm. So you've got lots of ideas...

R. Yeah.

C. ...of things that you can do.

R. I think my family when I'm older is going to be very green. And it won't be as (.) so um (.) expensive if it's more green.

C. Mmmm. Oh, so do you mean your family as in your children?

R. Yeah, my children.

C. Yeah. Yeah.

R. When I'm older.

C. Mmmm. OK. So you'll bring up your children kind of telling them about [these things, yeah =

R. = Yeah. I think I might take them] (...) I think I might take them [*to the country where the family previously lived*] and then you bring them back at Peter's [*Rosie's younger brother, aged 8*] age, because it won't be so hard if they come back at my age. Because I found my age particularly difficult because I had established some new friends there.

Canonical narratives in this extract

- **The household as a key site of energy reduction**

All the practices Rosie talks about in this extract take place within the space of the house itself, despite no spatial bounding in my question.

- **Personal /individual responsibility for reducing own resource consumption within the household**

Rosie references the idea of everyone 'doing their bit.' By making the question personal – 'the things *you* do' – I am already allowing for making a connection between resource use and environmental impact (whether positive or negative). Rosie immediately takes ownership of 'my energy use' in line three, despite alluding to other people involved in the activities – her father is named and others are evoked, albeit in impersonal ways – 'the television gets left on and no one's watching it'. Rosie's 'ownership' of the practices she describes is most clear in line 14 – '*my light...my water...my toilet*'.

- **Targeting of particular practices deemed responsible for high/unnecessary energy use**

Rosie refers to the energy consumed by television and lights – a familiar narrative in environmental policy, where the targeting of particular objects and practices as high-consuming is often used to show the apparent ease of making changes in the household. Rosie herself targets particular practices in this extract and also tells a small story of her father doing this through the process of aggregation (see Shove et al, 2012, pp. 110-111).

- **Financial incentive of reduction in resource use**

On line 23 Rosie uses this as an arbiter on choosing between two practices perceived to be environmentally 'bad', and comes back to this in evoking her own (idealised) family in the future.

- **Practicing responsible energy use as something passed from one generation to the next**

In Rosie's 'small story' of her father and the lights, Rosie briefly takes on a different identity to that which she maintains through the rest of the extract (line 10). This story is framed around the trope of the parent telling the child what to do (made humorous here by Rosie's characterisation of herself as unbothered by and resistant to this), which I could be later seen to reinforce in line 33 with my expectation that Rosie's family will be 'green' because she as a mother will have brought up her children to be green.

- **'Comfort, cleanliness and convenience' (Shove, 2003)**

Line 15 serves as a something of a rupture in Rosie's three-part exposition of the responsible way that she could use lights, water, toilet. Here the canonical narrative of sustainable resource use comes into conflict with a canonical narrative around minimum standards of hygiene within the home, and Rosie's uncertain attempts to reconcile the two narratives. Elsewhere, comfort implicitly inform Rosie's explanations of 'responsible' ways to carry out particular practices ('If I want to warm the house up...if I want to cool down' – lines 65-66).

How does Rosie (and how do I) reframe these canonical narratives to construct particular identity positions in this extract and how does this extract show how Rosie might interpret my interests as a researcher?

Through Rosie's own interpretation of the question (not 'what impact do you have' – lines 1-2 and my intended question – but 'how can I make a [positive] impact' - line 13) and evocation of 'the stories you guys told' in lines 12-13, it is possible to see how Rosie may have understood the research project as part of a broader project of disseminating stories about 'good' and 'bad' environmental practices and getting people to adopt/reject these. Although Rosie takes on a number of identities in this extract, the one that is centred is the environmentally concerned, thinking and responsible child, something that might connect to other ways that Rosie has constructed herself in this interview and in other research activities as one who is responsible and not afraid to speak out about things she believes in.

Although I say very little in this extract, my non-verbal encouragements and my presence as someone with a particular interest in the environment, and in particular, in children's role in influencing household practices (as I had explained at the start of this research visit) may very likely have influenced the way that Rosie understood my questions and what she felt may have been expected of her in her response.

Interpreting Rosie's understanding of the question to be about what she can do to make a [positive] impact on the environment (as line 13 perhaps suggests), it is interesting that all of these practices take place within the home, and that almost all are practices undertaken individually. Rosie's only talk of negotiated family practices briefly brings in generational conflict which interestingly, neither of us say any more about (we just laugh it off?). This *may* suggest an understanding from Rosie that environmentally 'good' practices are easier to carry out alone than with others. Certainly it is interesting that she immediately talks about things that 'I' and not 'we' could do – is this in response to this being an individual interview? What she knows of my particular interest in children's role in shaping family practices in relation to environmental knowledge? Or an internalisation of individual personal responsibility?

The evocation of a family in the future is perhaps an attempt from Rosie to get across her commitment to environmental values ('I think my family when I'm older is going to be very green'), or could say something about the power of the

canonical narrative of the inter-generational passing on of environmental responsibility as something that is socially good.

This temporal shift to the future is then brought back into the present and made relevant to Rosie's recent experience as she goes on to talk about how she found coming back to the UK difficult after some time away. I do not interrupt Rosie's free association here and so this talk about environmental impact/responsibility comes to an end. However, the evocation of her life in the future may be one more way that Rosie makes meaning of her life in the present through drawing on a canonical narrative in explaining who she would like to be in the future. This may again speak to (sustainable) consumption and environmental responsibility as an 'identity project'.