

Respect for nature at 200 km/h? Rally driving in
Scotland and environmental responsibility

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I hereby declare that:

- (a) this thesis has been composed by me;*
- (b) the work contained within this thesis is my own;*
- (c) I have acknowledged all sources consulted in the appropriate manner;*
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ABSTRACT

This thesis explores how rally drivers in Scotland perceive environmental issues and the environments through which they drive. The overarching aim behind this is to think about a group of people who may be more hostile towards questions of environmental responsibility, and look at how such stakeholders reason round their behaviours and perceive environmental issues. I argue that due to the potentially far-reaching impacts of contemporary environmental challenges, it is crucial to take seriously the viewpoints and values of those who are perhaps not so willing to engage with environmental issues.

The work draws on several bodies of literature. First is work in environmental philosophy on the practical contribution of this sub-discipline, in particular environmental pragmatism. Second is thinking in sociology and human geography on responsibility, especially the interface between responsibility and care. Third is recent material in geography on the body and movement, in particular the burgeoning field of automobility.

These issues are addressed through a three-fold research design. Ethnographic and participatory techniques are used to foster an understanding of what exactly ‘the environment’ might mean to rally drivers (and indeed other users of the forest with whom rallying may come into conflict) and how it is experienced. In-depth interviews and subsequent narrative analysis seek to delve further into participants’ narratives and life histories in order to get a handle on how rally driving sits in relation to broader life contexts. Finally, two small-scale participatory projects with rally organisers relating to environmentally-responsible practice look at how this all comes together when participants make practical responses to environmental challenges.

The key conclusions arising from the empirical data are that environmental problems are experienced through a range of senses, with different groups using different sensory ‘evidence’ to make claims about environmental damage; that in some cases stakeholders’ views of environmental issues are based on *perceived* conflict with others as opposed to actual conflict; and that the values activities such as motor sport may represent are just as significant as their physical environmental impacts. In terms of the broader applicability of this research, I suggest two things. Firstly, that one of the key challenges in responding to contemporary environmental issues lies in thinking through how publics link up their everyday practices with much bigger discourses on global environmental change. Secondly, that careful and critical reflection on the rich narratives of place and people, and on the range of emotions shaped by embodied experience, can go some way to explaining why people may persist with more environmentally damaging practices in spite of ethical and environmental criticisms.

Keywords: automobility; environmental ethics; environmental pragmatism; qualitative research; place values.

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ii. TRACK LISTING FOR ACCOMPANYING DVD

Clip Number	Title	Contents
1	Making the most of the hill	Steve discusses how to make best use of the terrain
2	Pause between downhills	A momentary pause for a rider between mountain bike trails
3	Wood and rock	A combination of natural and human-made features on trails
4	Target practice	A field archer practices, using a carbon-fibre bow with sight
5	Forest sounds?	Timber extraction machinery can be heard at work
6	Keep her going and listen	Patrick tries to keep Rory's concentration up
7	Can you hear me?	Lee and Scott improvise when their intercom breaks down
8	Where is it?	Finlay and David try to see through the dust on a dry rally stage
9	Danger!	Susie warns Ruaridh about the danger of loose gravel and logs
10	The bad bit of road	Tricky rough, undulating surface for Rory and Patrick
11	Oh god!	Novice co-driver Niall is startled by the speed of rallying
12	Time penalty	Graeme reminds Jordan about avoiding time penalties
13	Sunday driver	Anthony and Luke try to pass a slower car on-stage
14	Don't be mucking around	Patrick keeps Rory on task as they reach the end of the rally
15	Don't leave it too late	Co-driver Luke advises driver Anthony on how to drive the car
16	Boot it then	Niall gives rallying newcomer Danny driving advice
17	That wis flat aye	Jordan evaluates his own driving
18	Carry your speed	Rory's approach to the same bit of road as Jordan in Clip 18
19	Tidy back up again	Lee and Scott negotiate a problem
20	Please mind it!	Patrick reminds Rory of trouble earlier in the day
21	This is the one...	Susie draws on previous experience to guide Ruaridh
22	This car's no handlin' right	Jordan comes to realise there is a problem with his car
23	Good skills	Patrick complements Rory on keeping control of the car

24	I've got a puncture	Danny thinks his car has picked up a puncture
25	It nips on ya	Luke warns Anthony about a difficult bend ahead
26	Bad right	The potential for an accident leads Scott to call the corner 'bad'
27	The bad bit of road (same as Clip 10)	Tricky rough, undulating surface for Rory and Patrick
28	Aye there's a surprise	Jordan's frustration at the placing of chicanes on the road is clear
29	That was good by the way	The smooth and flowing nature of the stage please Niall and Danny
30	Exhaust notes	A range of car exhaust notes valued by rally enthusiasts
31	Much faster than a normal mountain bike	Fourcross rider Dave explains how he is secured in his bike
32	Ding-ding-ding-ding	Sounds are a key part of Dave's riding experience
33	Using the scenery	Use of Scottish scenery in rally programme
34	Spectating in the snow	Heavy snowfall brings rally spectators out in droves

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1. INTRODUCTION

This research considers how ideas of environmental responsibility may take shape among a group of stakeholders perhaps hostile to environmentalist ideas. The case study of rally driving in Scotland is explored in order to think through how narratives of place, ecological identities and relationships to technology can inform an ethic of care or respect to the environment among those sceptical, apathetic or outright hostile to environmental issues. The justification for this is two-fold. Firstly, if Rolston's (2007) call for an ethics of respect towards the environment is to emerge, perhaps environmental ethics thinking needs to pay attention to those less amenable to environmentalist ideas. Secondly, affording consideration to a group such as rally drivers can help to throw up challenges that ensure the continued applicability of environmental ethics to real-world environmental issues.

The second chapter introduces rally driving in Scotland. The aim of this chapter is mainly to set out the context for the research, as the case study deals with a specialised and sometimes opaque concept. The concept of rally driving, the nature of vehicles, the roles of those involved and the spaces in which rallying takes place are all discussed. This chapter also explains the nature of land ownership in Scotland, outlines the environmental history of rallying, and sets out the main types of recreation and land use with which rally driving may come into conflict.

The third chapter reviews key literature underpinning the study. The research is situated within debates about the social contribution of environmental philosophy, paying particular attention to the continued value of thinking in spite of the very real and pressing nature of contemporary environmental issues. A reciprocal relationship between environmental ethics thinking and practice, where practical experience can inform the ideas of environmental ethics just as much as these ideas can help to reach workable outcomes in practice, is proposed as a means of ensuring the continued relevance of environmental philosophy to real-world debates.

Environmental pragmatism is explored as a useful way of working towards engagement with stakeholders who may be more hostile to environmentalist ideas. I

argue that dismissing offhand as ‘wrong’ the views of stakeholders such as rally drivers whose practices may be viewed as more anthropocentric can rule out possibilities for practical progress on environmental issues. Nevertheless, the importance of deliberation between stakeholders over broader issues of environmental values is advocated, so that understanding between stakeholder groups can be enhanced and values reshaped whilst practical progress continues.

Ideas of environmental responsibility and ecological citizenship are discussed. Clayton and Opatow’s (2003) concept of ecological identity is considered as a means of thinking through the links between broader ethical issues, individuals’ wider life narratives and practical action. This is considered in relation to Dobson’s (2003) ideas of ecological citizenship and Massey’s (2004) geographies of responsibility, in order to suggest openings for a practical and workable form of individual environmental responsibility based on the embodied experiences stakeholders have with places and the memories associated with those places.

Given the embodied and mobile nature of the rally driving experience, literature on embodiment and from the burgeoning field of automobility is drawn in to give some analytical purchase on the mobile, embodied experience of rally driving. Other mobilities that take place in the same environments as rally driving are also explored, in order to identify areas of potential conflict or consensus between different mobilities and pinpoint what precisely is uniquely valued about the rallying experience. Following Rodaway’s (1994) assertion that the sensuous is the ground base on which broader geographical understandings can be constructed, I argue that paying close attention to the embodied experience of driving a car can explain much about the values that lead stakeholders to continue with a practice so fundamentally destructive to the environment. Likewise, looking carefully at the other kinds of mobilities that rallying has the potential to come into conflict with can help to illuminate areas where values conflict may lie, or also areas of commonality on which practical outcomes can proceed while broader deliberation continues. Indeed, more recent work on automobility such as Sheller’s (2004) discussion of automotive emotions is drawn on to bring out the emotional and embodied aspects of car culture.

The fourth chapter addresses methodological issues relating to the research. The key methodological challenges arising from the literature review in terms of linking up individuals' life history narratives with embodied experiences are reiterated. I then discuss the value of the concept of narrative as an interpretative and analytical framework. A three-fold research design is subsequently proposed, one that seeks to (a) understand how environmental values may be shaped and performed in the first embodied instance; (b) explain how participants reason round their world views away from the immediate pressures of the field; and (c) participate in reducing the environmental impacts of stakeholders in order to retain a focus on what can be achieved in practice. I sketch out a voice-centred relational method of analysis as a way to make my own interpretations of the data I have constructed explicit alongside a more 'objective' and text-immanent analysis.

I spend some time discussing my relationship to the research as a motor sport enthusiast and participant. I make my situation in relation to the research explicit, and argue that if reflected on critically and appropriately, this relationship can be a force for good in giving additional explanatory power. I consider how issues of potential validity and bias can be effectively addressed so that these advantages of my relationship to the research can be utilised to their full benefit.

Some practicalities are then discussed, detailing what I actually did. Ethnographic work and participant observation was carried out, with video recordings made whenever possible and/or notes made later. The aim of this is to consider how different stakeholders experience the environment in the embodied instance, giving insights into how environmental values are shaped and performed. In-depth interviews were also conducted, allowing participants to reflect on their life history narratives and identities away from the immediate pressures of the field. This gives extra analytical purchase by allowing factors perhaps not present during participant observation to come to the surface. Finally, participatory projects were carried out with a rally championship and a rally event, both of which were instigated by the rally organisers and aimed to reduce the environmental impacts of rallying. This

gave an excellent opportunity to see how ecological identities and world views worked in practice, as well as providing interesting insights into how participants viewed me as a researcher and serving as a timely reminder of the challenges of affecting practical environmental change. Issues of ethics are also considered here.

The fifth chapter moves onto the empirical data to talk about the embodied experience of moving in the forest. Although this chapter seeks mainly to describe the experience different participants will have, where appropriate links to how environmental values may be informed are drawn. This chapter is in turn split into three sub-sections: the forest landscape; driving in the forest; and mobility in the forest.

The forest landscape looks carefully at what exactly the forest environment is and the values that are bound up with its construction. I explore the idea of the forest as a built environment, a space of heterogeneous mobilities, and a landscape where people's understandings and values are shaped through skilled practice. *Driving in the forest* looks almost exclusively at in-car video recordings of rally crews driving on stage rallies, with the aim of considering very carefully how exactly the environment is sensed under conditions of high-speed movement. *Mobility in the forest* looks more broadly at the mobilities of the stakeholders under study here, paying particular attention to the similarities and differences between motor sport and the other recreational mobilities that take place in the same spaces.

The sixth chapter builds on the enquiries into embodied experience by bringing together a number of aspects pertaining to ecological identity work. Several key themes arose out of the empirical data, and the chapter is structured around these. I start by looking at *place*, in particular the role place values can play in encouraging humans to act to preserve natural environments. I then discuss *identity work*, where – following Light (2000) – I look at the broader identities in relation to which individuals discuss their ecological identities. I move on from this to explore *relationships*, namely the role of relationships with other humans in shaping environmental values and actions. The theme of *narrative* builds on the ideas of

ecological identity by highlighting the centrality of life history narratives in individuals' justifications for continuing with environmentally destructive practices such as motor sport. Finally, *presentation and performance* moves towards the conclusions of the thesis by thinking how environmental actions might be shaped in practice, especially through texts and the calculation and measurement of environmental damage.

The seventh chapter seeks to tie together the various strands of the research, with a particular focus on how environmental responsibility might be achieved practically among stakeholders perhaps more hostile to environmentalist ideas. Again, I suggest five key themes for affecting tangible and workable change: proximity; perception; materiality; regulation; and knowledge. *Proximity* refers to the spatial and social proximity to places and people as drivers for care towards the environment. *Perception* builds on the thoughts of Sagoff (1992) and suggests that perceptions of environmental conflict and perceptions of the views of other stakeholders can often mask opportunities for practical alliances to be formed. *Materiality* serves as a reminder of the real and physical nature of the environmental impacts of motor sport. *Regulation* suggests that as motor sport is a highly regulated and controlled activity, rules and regulations can have a large part to play in reducing the environmental impacts of motor sport, as long as deliberation over environmental values comes alongside this so that regulations do not become ends in themselves. *Knowledge* illustrates the heterogeneity of ways through which claims to environmental damage can be made, but also the potential for workable outcomes to be reached when different knowledges come together to give the kind of polyvocal environmental account Paavola (2008) calls for.

In keeping with my grounding in environmental pragmatism as an approach where broader philosophical issues are not ignored, however, I go on to discuss the reciprocal relationship between environmental ethics theory and practice. The contribution environmental ethics has made to practical outcomes in my participatory work with rally drivers in Scotland is reflected on, noting the value of an approach based in environmental pragmatism in thinking round initial scepticism on the part of

the drivers and avoiding being overly critical when looking at real progress that has been achieved. The contribution of this study to the environmental ethics literature is also considered, with place values, the complexity of ecological identity formation and the heterogeneity of world views that can exist within one group of stakeholders all flagged up as issues environmental philosophy should continue to pay attention to if it is to keep making a valuable contribution to very pressing real-world environmental issues.

The eighth chapter briefly summarises the findings of the research, reflecting on the theoretical and methodological implications of a 'genuine' environmental responsibility. Methodologically, I argue for an approach that looks at embodied experience, broader questions of identity and the complex relationship between theory and practice, suggesting that an approach like this can give a great deal of analytical purchase on how environmental values and actions can be shaped and (re)formed. Theoretically, I reiterate my point about the multisensual nature of environmental issues, the argument being that when we consider humans' relationships to the environment more broadly, it is important to remember their values are shaped heavily by embodied experience drawing on all the senses. I also reinforce the idea that by assuming opposition from the outset, or by dismissing certain stakeholders' views as outright 'wrong', opportunities for alliances to take environmental action can be overlooked. Finally, I reflect on what motor sport stands for and consider the role it may play in imagining more sustainable futures for automobility. Setting the physical environmental impacts of motor sport aside, I finish by suggesting that if we think carefully about what is truly valued in the motor sport experience and consider how some of the more socially or environmentally negative aspects of motor sport can be removed whilst retaining the rich narratives that are of so much value to motor sport participants, then motor sport could even become a force for good in imagining these more sustainable automobility futures.

2. OVERVIEW: WHAT IS RALLY DRIVING?¹

2.1 What is rallying?

A modern car rally tests the speed of a crew and their vehicle in getting from one point to another. In an automotive context, the term ‘rally’ originated in the early Twentieth Century, when crews would converge on a central venue from divergent starting points. In other words, competitors would ‘rally’ round one venue such as Monte Carlo, with the rally itself being the journey to the central point. Modern car rallies, however, essentially see crews start from a central point and complete a pre-defined route, with the crew that completes the pre-defined route in the shortest time being declared the winners.

The route along which the rally takes place is broken up into a series of Special Stages. Crews are timed from the start to finish of each Special Stage, and it is the times they take to complete these Special Stages that are added together to determine the overall result of the rally. The Special Stages are linked by Road Sections, sections of the public highway where crews must drive according to the speed limit and other road traffic laws. The times crews take to complete the Road Sections do not count towards their classification in the rally – the purpose of Road Sections is purely to transport crews from one Special Stage to the next.

Unlike a motor race, rally cars do not physically compete against one another for space on the course. Cars are set off into the Special Stages at timed intervals, usually one minute but sometimes thirty seconds or two minutes depending on weather conditions and the number of cars contesting the event. This means that each crew is generally able to focus solely on traversing the Special Stage as quickly as possible without having to think about overtaking other vehicles or defending their position from a car behind.

¹ There are no references in this section, because all of this is information that I know myself through my intimate and sustained engagement with motor sport. Critical reflection on this and on the process of writing explanatory sections such as this can be found in Section 4.2.4.

At several points over the course of a rally, there will be an opportunity for a team of mechanics and engineers to service the rally car. These service halts come in between Special Stages, and provide an opportunity for damage incurred during competition to be repaired or mechanical malfunctions to be corrected. More mundane maintenance tasks such as refuelling the car and replacing tyres are also carried out during service halts.

2.2 Where does it take place?

Rallying takes place in a range of different locations, however virtually all rallies take place in rural areas. The Rally Headquarters will normally be based in a town so as to be closer to amenities such as hotels and shops that competitors and organisers will require. Similarly, the rally's Service Park – where service halts are carried out – will usually be in a town or village closer to the Special Stages, with the Stages themselves in areas of very low population density.

In the UK and northern Europe, gravel forest roads are common locations for rally Special Stages, whereas in southern and central Europe public tarmac roads are often closed to allow rallies to run. Spectator Special Stages may also be run in a venue closer to areas of high population density in order to raise public interest in rallying – these Spectator Specials are usually very short Special Stages and are held in places such as sports arenas or closed-off town centres where the public can easily access the Special Stage. These Spectator Stages are often branded as 'Mickey Mouse Stages' by competing crews, who can become frustrated by the short and often unchallenging nature of such stages.

A typical motor rally will therefore be spread out over a reasonably large geographical area (see Figure 2.1). Recent years have seen a shift towards more compact rally areas, but a common setup would be to have the Rally Headquarters in a large town, with the Special Stages based in the forests or country roads perhaps ninety or one hundred kilometres away. The Service Park would often be located on

the outskirts of a smaller town or village equidistant from the Special Stages, but on larger events lasting several days the Service Park may move from day to day according to where the stages are.

Figure 2.1 – geographical spread of a typical motor rally. Note in particular the large distance from the rally headquarters (red dot) to the competitive stages (red lines).



Scale: 1:2,000,000

Source: http://www.msaevents.co.uk/2010_RoS_RG1_FINAL_web.pdf, accessed 17/12/2010.

Much smaller rallies do also exist where the Headquarters, Service Park and Special Stages are all in very close proximity. These are known as Single Venue Rallies, as the crews do not have to travel on the public highway to reach the Special Stages. Common venues for Single Venue Rallies might be disused airfields, the grounds of a stately home or the access roads of a regular racing circuit. The Special Stages on Single Venue Rallies are usually marked out by cones or hay bales, and over the course of the day the cones or bales are moved in order to give different layouts for each Special Stage even though the same ground is used over and over again.

2.3 What kinds of vehicles are used?

Modern rally cars are based on ordinary passenger cars. Virtually any road-going car can be used as the base for a rally car, but high-performance versions of small hatchbacks or saloon cars tend to be most popular. The interior trim of the car - carpets, seats, most plastic fittings - is removed completely and a tubular metal structure known as a roll cage is welded or bolted into the car. The function of the roll cage is to give additional rigidity to the car's chassis and to protect the occupants from severe impacts that would crush an ordinary road car.

The car's ordinary seats are replaced with special competition seats made of fireproof material and bolted onto the floor of the car. These seats are fitted with special competition seat belts, more akin to the kind of harnesses fighter jet pilots wear. These seat belts hold the driver and navigator into the car on each side across the shoulders, waist and lap, meaning the crew are secured into their seats at six points.

Externally, the bonnet and boot of the car are secured with additional fixings to prevent them from flying open at high speed. Stronger wheels are often fitted to cope with the demands of travelling over rough roads at speed, and rally cars use special competition tyres. These tyres vary depending on whether the rally is on gravel or tarmac, but the key difference between competition tyres and ordinary road tyres is that competition tyres offer far greater levels of grip, allowing the car to go round corners at higher speeds and adhere to loose gravel surfaces. This also means, however, that competition tyres wear down quickly - a typical rally competition tyre lasts anything from fifty to one hundred kilometres before it has to be replaced. Underneath the car, metal or carbon-fibre plates protecting the engine's oil sump (a sump guard) and petrol tank (a tank guard) from rocks and other obstacles will be fitted.

Mechanically, a rally car may be modified from the road-going car on which it was based to varying degrees, depending on the finances available to the owner. Some

cheaper rally cars will have unmodified engines, suspension, gearboxes and brakes, the owner fitting only mandatory safety equipment, rally tyres and a sump guard. More expensive cars will have competition suspension to increase stability on bumpy surfaces, bigger brakes to allow the car to stop more quickly, tuned engines for greater power and speed, and customized gearboxes for faster acceleration. These modifications can often make a rally car difficult or uncomfortable to drive on the public highway, but will aid performance in a competitive environment.

As different types of car have such markedly different performance figures, it is virtually impossible for a crew in a relatively cheap, low-powered car to beat a crew in a more expensive and sophisticated car, no matter how skilled the crew is. For this reason the cars contesting the rally are divided into a number of classes according to the engine capacity, engine complexity and driven wheels of the car. These classes group cars with similar performance characteristics together, meaning that those in less expensive cars can enjoy close competition against other competitors in similar vehicles, even though they might have no realistic chance of winning the rally outright. Trophies are awarded to the class winners on each rally as well as the overall winners.


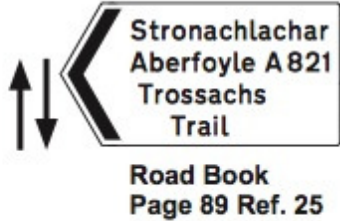

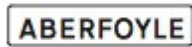
The cheapest and most basic rally cars cost between £2,000-£4,000 to buy, and just under £10,000 to run for a full season's rallying. Powerful four-wheel drive Japanese saloons – popular the world over due to their speed and reliability – cost anything between £40,000-£100,000 in a form capable of winning a rally outright. Cars suitable for contesting the World Rally Championship cost upwards of £300,000.

2.4 How do competitors find their way around?

Competitors have several different methods of navigation depending on what section of the rally they are at. For the Road Sections used to transport crews on the public highway between the competitive Special Stages, the navigator will use a Road Book. The Road Book gives instructions in graphic form for which way to turn at every junction the crew encounters on their way to and from the Special Stages (see

Figure 2.2), as well as listing the distances between junctions. The Road Book may also feature small maps showing the overall rally area, and some navigators carry Ordnance Survey maps in addition to the Road Book.

Figure 2.2 – extract of a road book used to guide competitors through non-competitive sections.

Route to RZ 7 - Aberfoyle				
Distance		Direction	Information	Kms to TC
Total	Partial			
0.00	0.00			
0.83	0.83			

Source: http://www.msaevents.co.uk/Bulletin_3_yellow.pdf, accessed 17/12/2010.

On the Special Stages themselves, the crew will use a descriptive set of Route Notes to guide them through the stage. These notes describe the severity of corners ahead, and are read out by the co-driver as the crew make their way through the stage. The notes are read out in advance of the corner, thereby allowing the driver to adjust the speed and direction of the vehicle in advance of the corner. Route Notes will also list any hazards that may be in-stage, such as slippery sections of road that require extra caution, large rocks on the inside of corners, trees close to the road or changes in elevation that may cause the car to become airborne.

Different crews use different styles of Route Note depending on their preferences. One common system, however, is for corners to be assigned a number from 1-9

depending on the angle of the corner – so a seventy degree right-hand bend becomes a 7 Right, a thirty degree left-hand bend becomes a 3 Left, and so on (see Figure 2.3 for an example of how route notes may look). Alternatively, the notes may tell the driver what gear he or she should put the car into in order to be at an appropriate speed – under this system, a 5 Right would be a relatively gentle corner that could be taken in fifth gear. Another common system is more descriptive, with corners described as ‘Easy’, ‘Medium’ or ‘Hard’ depending on how much the car must be slowed down. (For a very neat and succinct description of route notes, see Munro vs. Sturrock, 2010).

Figure 2.3 – sample of route notes used on rallies.

keep right → **L1/C** **60**

!!comes up quick/entrance hidden

Jet	Mile
1	10.7

rocks

!!R1.C + Turn suddenHpLno cut →

Source:

http://www.scottishrallychampionship.co.uk/files/routenotes1_9.pdf,
accessed 17/11/2010.

In addition to the Road Book and Route Notes, signage may be placed along the rally route to guide competitors. This most commonly takes the form of orange arrows pointing crews in the direction they should go – these orange arrows might show the entrance to a stage in the countryside or keep crews on route through a complicated section of urban road. In-stage, orange arrows usually denote sharp bends but can also guide the driver down the correct road where several roads meet at a junction. In this situation, though, red and white tape would also be used to mark off the other roads.

The time the crew takes to complete each stage – and the time they take to traverse each road section – is recorded on a series of Time Cards. When the crew enters each Time Control, the marshal there writes the time on the card in the appropriate box. This allows the time the crew takes to drive through each Special Stage to be calculated, and also allows penalties to be applied if the crew are too late or early at any of the Time Controls preceding or following a Road Section.

2.5 Who is involved?

Firstly and most obviously is the crew of the car – the driver and co-driver. The job of the driver is to drive the car through the stages and on the road sections. The co-driver is responsible for navigating the driver through all sections of the rally route, both competitive and non-competitive. On the competitive Special Stages, the co-driver will read out the Route Notes to the driver. On the Road Sections, the co-driver will direct the driver to the next section according to the Road Book. The co-driver is also responsible for ensuring the crew arrive at each time control at the correct time, and for keeping a note of the times set for each Special Stage.

Over the course of the rally – and in-between events – the car will be maintained by a service crew. The service crew consists of a number of mechanics, who refuel the car, change its wheels and tyres and carry out any necessary repairs during the rally. The number of people in the service crew varies depending on the size of the rally team – larger outfits can have up to ten people working on each car, whereas very small teams may have only one or two mechanics to support them. In-between events, often with the support of the driver the service crew will carry out work to repair and/or improve the car ahead of the team's next event.

The rally is run by a large team of officials and marshals. Each rally is organized by a car club, who oversee every aspect of the event. In conjunction with the Motor Sports Association (MSA), the national governing body for motor sport, the car club liaises with the Forestry Commission to obtain permission to use certain forest roads for the rally. The car club then works with the local police force and local authorities

to make them aware of the event and avoid any potential conflicts with other events. The rally committee is headed up by the Clerk of the Course, who is ultimately in charge of the event and has the final say on all major decisions. The Clerk of the Course is supported by a deputy, an Event Secretary and a body of Stewards – the role of the Stewards is to deliberate and provide a ruling on any matters to do with competition rules. In addition to the Clerk of the Course, Secretary and Stewards, additional committee members have responsibilities for different areas to do with the rally. The most important of these are route management, medical and rescue provision, spectator safety, recruitment of volunteer marshals, on-event internal radio communications, and marketing and press relations. Furthermore, on the day of the rally many teams of marshals work to ensure the event runs smoothly and safely – these marshals are involved with every competitive aspect of the rally by staffing time controls, preventing spectators and media from standing in dangerous locations, directing vehicles, and being on-hand to provide the most immediate assistance in the event of an accident.

A team of scrutineers are brought in to make sure all competing cars conform to the rules laid out by the MSA. All scrutineers hold a licence with the MSA, and check cars before, during and after the event to make sure they are safe enough to compete and that illegal parts are not being used to give someone an unfair advantage. The MSA also appoint an independent steward to the event to observe its smooth running.

Virtually everyone involved with rallying below international level does so on a voluntary basis. Club committee members are reimbursed for out-of-pocket expenses such as food, petrol and accommodation, but very few people are paid to organize, or indeed participate in, rallies.

2.6 What happens on a rally?

Planning for a rally starts around eleven months before the event itself. The first tasks are to confirm the main officials for the event and to determine which forest

roads can be used with, for instance, in the UK the Forestry Commission. At this time, venues for the rally headquarters and service park are arranged, and discussions take place with the area's police force and local authorities to work round any potential clashes or conflicts with other events in the area.

From then onwards, committee meetings take place on a monthly basis, with marshal teams, doctors, ambulance units and radio communications teams being confirmed about six months before the event. Around two months before the rally is due to take place, a booklet of regulations (the 'rules' of the event) is released and competitors can start to lodge their entries. Crews can enter at any time up until the night before the rally, but if the event is very popular then entries may be allocated on a first-come-first-served basis or on the basis of success on previous rallies. At this time – about two months before the rally – local residents living on the rally route receive information about how the event will affect them, and the event press officer will start to generate media interest.

In the weeks and days leading up to the rally, route notes will be produced. If the rally is a smaller event, then all crews will be issued with route notes produced by one sub-contracted company – this company will drive the stages in the weeks leading up to the rally and produce notes accordingly. If the rally is an international event, however, then crews make their own route notes known as pace notes – the advantage of these is that they can be honed more finely to suit the vagaries and idiosyncrasies of each individual crew. Route notes are made by driving the stages several times at slow speed, each time refining the notes.

The day before the rally, the rally teams will arrive after lunchtime. Cars will be checked by a scrutineer to ensure they are safe enough to compete, and then the crew will go and 'sign on' for the event. 'Signing on' means that the crew sign a form to say they are registered for the event and – crucially – indemnify the MSA and event organisers against any damage or litigation that may arise from the crew's participation. At 'signing on', crews receive their route notes and other important information. Either early in the evening or first thing the next morning, there is often

a drivers' briefing where the Clerk of the Course (and, if appropriate, the producer of the route notes) reminds competitors about any particularly dangerous sections of the course or alerts them to any potential problems such as roadworks that may arise.

The rally gets underway, with cars departing at regular intervals as mentioned earlier (usually one minute). There is often a ceremonial start for the rally in the centre of the nearest town, and from the start the competitors head off along the road sections to tackle the Special Stages. Service halts intersperse the competitive Special Stages, and over the course of the rally the leaderboard is kept up to date as times are phoned in to a central results office from the marshals at the end of stages. Competitors find out who is leading by picking up printed sheets in the service park, receiving text messages on their mobile phones or logging on to the internet in the moments of stillness in-between the Special Stages. At the end of the day, the competitors return to rally headquarters – frequently via a ceremonial finish where the provisional winners spray champagne – and await the confirmation of results. A period of one or two hours then follows when timing queries are addressed and the Stewards deal with any issues that have arisen during the day, before the results are declared final. A prizegiving follows where trophies are given out to the overall and class winners.

The length of the competitive sections of a rally depends on the status of the event – whether it is clubman, national or international. Most national rallies last only one day and cover around 45 miles of forest road or 60 miles of tarmac. International rallies, however, last at least two days and around 150 miles. Generally, rallies start early in the morning and finish late afternoon, but international events often start with a couple of short stages late at night in order to build excitement and atmosphere by having cars running in the dark. International rallies used to run through the night, however nowadays it is more common to have two short stages in the evening, a full day's rallying the next day and then a half-day's rallying on the final day.

2.7 The Scottish rally scene

Rallying in Scotland predominately takes place in forests owned by the Forestry Commission. There are some events in private forests and two rallies that take place on closed public tarmac roads, as well as smaller events on airfields and private land. Scottish forests have developed a reputation as having some of the most challenging roads to drive in the world. Scotland's forests – especially those in Perthshire, Argyll and Dumfries and Galloway – were the scene for much fierce competition between the world's best crews in the 1970s and 1980s, and the Intercontinental Rally Challenge has recently returned to Scotland.

Scotland has a long heritage of producing very successful rally competitors – and motor sport competitors generally. Colin McRae from Lanark won the World Rally Championship in 1995 and is widely regarded by journalists, enthusiasts and fellow drivers as the most talented and exciting rally driver ever. Derek Ringer and Robert Reid – hailing from Lanarkshire and Perthshire respectively – won the World Championship for Co-Drivers, and Louise Aitken-Walker from Duns in the Scottish Borders took the World Ladies' Rally Championship in 1991. At their peak, Japanese manufacturer Mitsubishi's rally team was managed by Scotsman Andrew Cowan, and Edinburgh-born George Donaldson headed up Toyota's rally team during one of their most dominant eras.

As well as Scotland's international reputation for rally driving, the country also has a thriving amateur/enthusiast rallying framework. Recreational rallying in Scotland is focused around the Scottish Rally Championship, an eight-rally series open to any crew regardless of their nationality or experience. The Ecosse Challenge series has also been set up in Scotland in order to help and encourage young competitors taking up rallying, by providing a low-cost environment where training is provided. Contrary to a general decline in the number of competitors taking part in UK rallying in recent years, entry levels for Scottish rallies have remained high and are actually increasing – a typical Scottish Championship rally attracts a field of more than one

hundred cars, compared to twenty to thirty for a British Rally Championship round. The tolerance in Scotland's rally championships for older (and thus cheaper) makes of car is believed by many to contribute to these high entry levels.

A number of different cars are popular on Scottish rallies. The most competitive drivers use highly-tuned, four-wheel drive Subaru or Mitsubishi cars – it is cars like these that usually win Scottish rallies outright. The newest and most expensive World Rally Championship-standard cars are very rarely used, partly because of their cost but also because it is widely accepted within Scotland's rallying communities that it is unsporting and unfair to try to win an amateur championship with such a fast car. Much older Mark 2 Ford Escorts from the 1970s are also very popular, particularly among older competitors – as they are rear-wheel drive, these Fords are easy to skid and therefore viewed as fun, exciting and challenging to drive. Among younger drivers with aspirations to make a career out of rally driving, small hatchbacks from the previous decade such as those produced by Peugeot, Honda and Vauxhall are popular due to the ready availability of cheap spare parts from scrapyards and the similarity in driving dynamics to the kinds of cars used on international rallies.

Nearly all Scottish rallies last just one day – nearly always on a Saturday - and cover approximately 45 miles, starting in the morning and finishing late afternoon. Television and printed media interest of rallying in Scotland is limited, but through publicity events organized by car clubs and sponsorship deals with local businesses, awareness of rallying in the areas in which it takes place is relatively high.

2.8 Environmental history of rallying

Attempts to consider the environmental impacts of rallying have focused largely on the fuel emitted by cars and the physical damage to the surrounding environment. Traditionally, rally cars have used petrol engines, however since the late 1990s manufacturer teams and enthusiasts have experimented with different propellants,

most notably diesel, bioethanol and hybrid petrol-electric power. In Scotland, however, virtually all competitors still use petrol-powered vehicles.

In terms of the physical damage to the surrounding environment, the fact that nearly all lands used for rallying are leased by the Forestry Commission means that a firm structure is in place for dealing with the effects of rally cars driving through forests. The fee rally organisers pay the Forestry Commission to lease the forest lands reflects the amount of money that must be spent repairing the gravel roads after the rally has passed and rectifying other minor damages that may have been caused. In response to this, the British Rally Championship – in association with tyre manufacturer Pirelli – conducted a series of tests in 2009 to attempt to develop a tyre that caused less damage to the environments in which rallying takes place. The idea was that if a less damaging tread pattern on the tyre could be enforced, then the damage caused and thus the fee payable to the Forestry Commission could be reduced. Nonetheless, with many competitors concerned about a lack of traction these so-called ‘eco-tyres’ would provide, no significant progress has been made as of yet.

Efforts to regulate the noise of rally cars have also increased in the UK (including Scotland) in recent times. Cars may not compete if the sound emitted from their exhausts exceeds 100 decibels², the explicit justification for this from the MSA being to reduce the potential for conflict. In addition, vehicles must carry ‘spill kits’ to clean up any spillages of fluids such as petrol, oil or brake fluid, and competitors are encouraged to get their racing fuel from tankers at events rather than bringing their own fuel in cans.

Conflicts with non-participants at a local level have also occurred. Stages on the Tour of Mull Rally had to be cancelled in 2009 after a conflict with a farmer over the control of livestock close to the roads, and there are occasional threats from the public to disrupt rallies by blocking the route with vehicles, stones or logs. Such

² I will discuss the nature of this measurement – and the associated claims about disruption of tranquillity for other land users - more critically in Section 6.5.

conflicts are often grounded in disputes over access rather than any explicit environmental component, however it is worth noting that in 2009, several sections of the World Rally Championship round in Australia had to be abandoned because of actions by environmental protestors. Nonetheless, in the United Kingdom at least there is no large-scale and sustained opposition to rally driving on environmental grounds of the kind that exists for, say, air travel.

I have given some brief contextual information here on what can often be a confusing form of motor sport. Such in-depth knowledge of what is to many a perplexing topic clearly has methodological implications, and I discuss this in subsequent chapters. For now, though, I want to turn to the literature surrounding the research area.

3. FROM THE LIBRARY TO THE TOWN HALL TO THE DRIVING SEAT: BRINGING TOGETHER DIVERSE STRANDS OF LITERATURE

This chapter reviews existing literature pertaining to the research topic. Before proceeding any further, however, it is perhaps important that I make a brief attempt to clarify what I am referring to when I use two common terms – ‘environment’ and ‘values’. I draw on existing literature in order to do this, which is why I have placed this discussion within the literature review section of my work. As these are terms that one often cannot avoid using due to their prevalence not only in academic literature but also in everyday naturally-occurring talk, it is important to get clear from the very start what I understand ‘the environment’ and ‘values’ to mean.

First, ‘environment’ and its associated term ‘environmental’. I agree fully with Berleant (1992) and Ingold (2000) about the situatedness of the body within the world, and pay careful attention to their warnings about the danger of reinforcing dualistic ways of thinking through uncritical use of the word ‘environment’. Nonetheless, given the frequent appearance of such terms within the literature and also the pragmatic aims of my study, I believe it is necessary to (carefully and critically) deploy words like ‘environment’ and ‘environmental’ in order to at least situate my own work within the field of existing literature.

I aim to explore participants’ relationships to the ‘natural environment’, so the definition of this term is particularly important. Carlson (2000) believes the term ‘natural environment’ is more appropriate than either ‘nature’ or ‘landscape’, for it makes explicit that it is the environment under consideration rather than an object or piece of scenery. Although I am well aware of the lengthy and ongoing debates on the relationship between ‘culture’ and ‘nature’, for the purposes of my study I feel Clayton and Opatow’s (2003:6) simple definition of the natural environment serves my purposes well:

we use the terms *nature* and *the natural environment* in the average person’s sense, to refer to environments in which the influence of humans is minimal or nonobvious, to living components of that environment (such as trees and

animals), and to nonanimate natural environmental features, such as the ocean shore.

In this, the idea of human influence being “nonobvious” is particularly helpful, as for the most part I shall be working with humans who interact with forests planted by humans for, initially at least, the purposes of timber extraction. Although such forests are anthropogenic in origin, they do still contain living trees and are for much of the time undisturbed. Using Clayton and Opatow’s definition – with careful reflection on any slippages that might occur compared to a more ‘natural’ forest, of course – therefore helps to sidestep debates on the ‘naturalness’ of the environments I am researching, freeing up time and words to concentrate on how *stakeholders* see their relationships to this environment in practice.

To Clayton and Opatow’s take on nature I would like to add Berleant’s (1992:20) equally neat and useful definition of ‘environment as “the physical-cultural realm in which people engage in all the activities and responses that compose the weave of human life in its many historical and social patterns”. Much like Clayton and Opatow’s definition of nature and natural environments, Berleant’s view of ‘the environment’ sidesteps protracted debates by allowing for both physical properties and cultural properties. The idea of engagement is equally helpful in avoiding the pitfall of separating environment off completely from the human body, suggesting that, as Smith (2005) puts it, through incessant interpretation people gain new insights and become aware of different understandings. That is, people’s understandings of the environment are constantly changing, but within this there is room for the spontaneity of nature to shape these understandings.

Thinking back to my grounding in environmental pragmatism, the two definitions provided by Clayton and Opatow (2003) and Berleant (1992) provide exactly the kind of understanding of the natural environment that I require for this study. That is, an acknowledgement of the features of the world that the vast majority of people would perceive as natural, alongside which there is space for participants’ own understandings of what ‘the environment’ means to them on their terms to come through. By following the ideas laid out above I want to remain open to the

possibility that ‘the environment’ might mean different things to different groups of people, but that there are some things that most people would agree on as being more or less natural.

The second term to settle on a working definition for is ‘values’. Burgess et al (2000:519) suggest that the word ‘values’ “connotes a quality rather than a quantity; a principle or standard upon which judgments are made”. Values can therefore be seen to guide what people see as an appropriate way to act, both for their own behaviour and for the judgment of others. Callicott (2002) holds that whilst these values are held by individuals, they pertain to social wholes and are subsequently informed by much larger scales than the human body. Indeed, Taylor (1986) proposes that environmental values are dependent on basic attitudes towards nature developed since childhood, and that extreme variations can be found between the outlooks of different groups. Thus, argues Taylor (1986), albeit from a biocentric standpoint, the beliefs others have developed based on their own life experiences cannot simply be dismissed as erroneous as they appeal to our most strongly held inner convictions.

Weston (1984) sees values as being more deep-rooted than mere preferences, and in Weston (1985) expands on this by suggesting that a series of value justifications may be circular, organic and web-like. Midgley (1989) adds that values are not entirely different from the secure, accepted part of thinking that is taken to mean ‘facts,’ and Curry (2006) argues that values cannot be defended through logical arguments away from the contexts in which they have meaning.

Values can be seen as contextualised, working at multiple scales and not entirely separate from seemingly objective ‘facts’. Taking all of the above into consideration, I would thus tentatively suggest that ‘values’ refer to the things that are seen as meaningful to people, and the actions that are seen as appropriate, in relation to their broader life contexts. When thinking about values, what is especially important is to remain open to the possibility that values can be negotiated over time and to pay close attention to the factors that can lead these values to shift. In light of the

overarching aims of my study in shaping environmental responsibility, this could give key insights for working out practical change.

3.1 Environmental Philosophy and Deliberation

3.1.1 Introduction

In this section, I explore the value of environmental ethics thinking in even seemingly practical conflicts such as the motor sport response to environmental issues. I will suggest that the tools of environmental ethics can give analytical purchase on why some stakeholders justify continuing with environmentally damaging practices, and can also help to understand what exactly other humans using the landscape find objectionable. I focus in particular on environmental pragmatism as a means of linking environmental philosophy and practice, keeping practical outcomes in check without completely ignoring broader questions of environmental value. In turn, I propose the concept of ecological identity as a useful framework for considering human relations to nature in practice, as ecological identity recognises the role of people's broader life narratives in shaping their environmental values and actions. I discuss the importance of deliberation in working past seemingly intractable environmental conflicts, and raise potential stumbling blocks for successful deliberation as an early point of caution.

3.1.2 Why does environmental philosophy even matter?

In the first instance, one may well ask why it is even necessary to draw on philosophy when environmental issues are being deliberated. Midgley (1989:241) provides the neatest justification for drawing on philosophy literature, arguing that:

(i)n finding and formulating the rules that underlie sense, the inarticulate patterns by which it works, in noting their clashes and inadequacies and looking for ways of dealing with them, we are bound to be doing philosophy whether we realise it or not.

Furthermore, Rawles et al (2006) hold that values and value judgements underpin responses to environmental issues and the way they are prioritised and framed, therefore drawing attention to these values and opening them out for critical debate is arguably a key component of making changes necessary for sustainable living (*ibid*). With Stern and Finneberg (1996:73) describing deliberation as the way in which people “confer, ponder, exchange views, consider evidence...negotiate and attempt to persuade each other”, it becomes clear in the first instance that the ideas of environmental philosophy can give analytical purchase on the environmental deliberation process by helping to illuminate how actors come to adopt particular viewpoints and perceive and challenge the views of others.

McShane (2008:10) suggests that “(g)etting clear about what we think matters and why will help us to be prepared for and cope with some of the difficult choices that lie ahead”, again implying that a careful consideration of how stakeholders reason towards different standpoints and come to form various values can help with the more practical and tangible aspects of environmental deliberation. Also keeping the practical advantages of the consideration of values in check, Curry (2006:2) forcefully argues that “what is valued is what ultimately determines ethics. People will not treat properly whoever or whatever they do not care about”. David M Smith even believes there is an ethical imperative to take seriously ideas of moral philosophy in geographical enquiry, stating that “[t]o be inadequately equipped with the capacity for normative analysis is just as bad (unethical) as to lack appropriate instruments or techniques” (Smith 1998:9). There is thus much to suggest that the use of environmental philosophy to begin to get under the formation of environmental values can play an important part in even seemingly very practical deliberations such as the one under study here.

Although understanding how environmental values are shaped has a key role in reaching practical outcomes, Burgess (1982) argues that it is difficult to draw these environmental values out of participants. The reason for this, according to Weston (1985), is that a series of value justifications may be circular, organic and web-like. Due to the slippery and complex nature of environmental values, sustained

engagement appears to be necessary in order to understand how humans come to adopt particular ethical standpoints. It seems most sensible to attempt to get a handle on how environmental values may be created and negotiated in relation to humans' broader life narratives in order to get to grips with this web-like system of values.

I use the term 'life narratives' here as it speaks to both the individual and collective aspects of identity formation raised above, Kitchell et al (2000) observing that the telling of stories is a means of promoting individual identity formation within the framework of the collective. When I refer to narrative, however, what I am thinking of is something more akin to the idea of narrative trajectory of place developed by Alan Holland, John O'Neill and latterly Andrew Light (Holland and O'Neill, 2003; O'Neill, 2007; O'Neill, Holland and Light, 2008). Under the narrative trajectory idea, individual and community experiences of place contribute to an overall 'trajectory' of the ecological value of that place extending over time, rather than simply the telling of stories that Kitchell et al (2000) discuss. Narrative in this sense, then, refers to the multiple scales and contexts through which the landscape may be valued by humans, and also acknowledges that these values may change over time.

The concept of world views is one way of making the transition from these theories of value to practical action that considers the interplay between the different contexts through which an individual may perceive the landscape. Marietta (1995:8) defines world views as "an ever-changing complex of beliefs, values, feelings, desires, and expectations which affect the way a person sees the world and how the person feels about things in the world". The notion of world views as ever-changing fits well with the narrative trajectory idea, in that it acknowledges our environmental values are not static across space or time. As Harrison et al (1996) note, people persist in valuing the natural world through their social and cultural practices, drawing on 'local' knowledge that is place-specific and historically embedded.

Grasseni (2004) elaborates on this by arguing that specific practices of locality shape aesthetic and moral sensitivity, that is, one's practice shapes how one looks at the world. Sheller (2004:226) explains this further by holding that emotions are not

simply 'felt' and 'expressed', but instead they are "elicited, invoked, regulated and managed through a variety of expectations, patterns and anticipations". That is, the precise nature of one's engagement with the environment may result in a number of different emotions being invoked. When one considers von Bonsdorff's (1999) idea of a connection between humans' environments, practices and conditions of life and the ways in which we relate to each other affectively and responsibly, paying attention to how localised contexts affect the development of environmental values and a sense of responsibility to other humans, species and environments becomes all the more important.

For the purposes of my work it is perhaps most useful to think about how the various factors that shape environmental values come to affect people's practical actions. It is because of my intention to focus on action as well as process that Clayton and Opatow's (2003) idea of ecological identity is so appealing as a means of putting the themes of world views and narrative trajectory discussed above into practice. Clayton and Opatow claim that ecological identity reflects the intersection between identity and the environment, allowing individual experience, cultural context and specific practices of locality to be accounted for in a way that considers the practical importance of these factors. If we can understand the psychological mechanisms that make people passionate about the environment, Clayton and Opatow argue, then we can understand processes for fostering protective environmental policies and behaviour.

Light's (2000) argument that ecological identities are best understood in relation to any number of other identities a human may hold fits in well to the multi-scale, contextualised definition of environmental values put forward above. This idea of multiple identities informing ecological identity also allows for the possibility of different people experiencing the environment through varying degrees of shaping from wider cultural contexts, thereby sidestepping theoretical debates such as the one raised by Humphrey (2003) on the extent to which cultural contexts can inform environmental values. As will be discussed in more depth later, thinking about environmental values in terms of identity at this stage provides a neat link to

Massey's (2004) geographies of responsibility, where responsibility is viewed as being relational and derived from identity. There is thus much to suggest that considering how stakeholders' environmental values are expressed through and informed by their ecological identities is a more worthwhile exercise than attempting to isolate values or pinpoint the precise ratio of individual experience to cultural context. With this in mind, it may be more sensible to follow Shapiro and Takacs (2006) suggestion that beginning with small-scale, tangible environmental actions and then moving towards larger substantive questions is a more effective way to illuminate environmental value judgements among stakeholders.

In other words, whilst it may be difficult to get to grips with the slippery concept of environmental values, it is crucial to begin to understand how and why stakeholders come to behave in certain ways towards the natural environment. As Taylor (1986:23) reminds us, "(r)eferece to what seems intuitively to be so is no substitute for thinking things through to their foundations", with Weston (1984) similarly putting forward that even seemingly 'subjective' values and beliefs can be opened up to critical scrutiny.

3.1.3 Environmental pragmatism

In keeping with this focus on the challenges posed to philosophical ideas by real-world situations, environmental pragmatism is a useful base for thinking through links between philosophy and practical action. This is particularly pertinent for a case study such as the one I am researching in which a wide range of environmental values and standpoints may exist.

Environmental pragmatism emerged as an attempt to increase the practical and political relevance of environmental ethics thinking, and can be seen as a reaction against until recently dominant ways of thinking that privileged monistic, non-anthropocentric environmental ethics, often with a focus on questions of intrinsic value (Katz and Light, 1996). Key proponents of environmental pragmatism include Andrew Light, Bryan Norton and Anthony Weston, who are united in the view that

focusing too much on philosophical questions can limit the ability of environmental ethics to contribute to environmental policy. Whilst it would be somewhat counter-productive to give a single definition of environmental pragmatism, Minter and Manning (1999) state that environmental pragmatism begins with practical environmental problems, and then appeals to the tools of environmental ethical theory in an experimental fashion to work towards outcomes for such problems. Weston (1985) further explains that environmental pragmatism accepts different people hold probably irreconcilable views of the idea world, with Light (1996) portraying pragmatism as an ongoing and dynamic dialogue that acknowledges one framework alone may not be appropriate for the preservation and protection of the environment at all times. As Curry (2006) and Sagoff (2004) believe, when irreconcilable differences are faced the challenge then becomes one of finding areas of common value between the different stakeholders and using these as a basis for attaining workable outcomes for the environment. Indeed, as Norton (1995) points out, real-world cases often do not require the resolution of problems of philosophical principle, and several philosophies and world views can converge on an all-out effort to protect biological diversity.

Key to the concept of environmental pragmatism is the idea of pluralism. Schlosberg (2004:533) speaks of pluralism as “a recognition that difference may never come together in a coherent, single, social unity. Connections can be made in the pluralistic universe without recourse to an insistence on uniformity”. Whilst this arguably tends towards Pellizzoni’s (2003) suggestion that some differences may be so deep and so entrenched that no common ground can be found, it is crucial to note that this does not mean no outcome to environmental conflicts can be reached on the grounds that each stakeholder is arguing from different psychological premises. Rather, explains Schlosberg (2004), the advantage of a pluralistic approach is that principles in a variety of theories can be appealed to in a consistent manner, under the overarching aim of attaining practical solutions to pressing environmental concerns (Curry, 2006; Norton, 1995). Castle (1996) explains the crucial difference between pluralism and pragmatism is that pragmatism still allows for the making of choices and decisions even though different values are acknowledged and discussed, hence the term

‘environmental pragmatism’ will be used from here on in light of this study’s overarching focus on attainable deliberation outcomes. The key factor controlling the outcome of pragmatic environmental deliberation, Light (1996) explains, is the needs of the natural environment.

The discipline of geography seems to be well placed to assist in the contextualized, action-driven project of environmental pragmatism. As Smith (1998) suggests, if claims about the justice and sustainability of a particular way of life are to hold, these claims need to be based on lived experiences of people in time and place – something Smith believes geography is well placed to do as a result of its contextualized and applied nature. The field of geography therefore seems to be a natural ally with environmental ethics if the overarching aim is to shape tangible action and change on environmental issues.

An appeal to the tools and theories of environmental pragmatism is further justified when one considers the nature of the case under investigation here. In a situation with many different stakeholders, following Tabbush (2004) there is the possibility of a number of different world views existing simultaneously in ways that may not be commensurable with one another. Indeed, Thomson (2003:272) holds that “pragmatists commonly advocate incorporating a wide variety of public values into policy decisions”, fitting in well with Irwin’s (1995) observations of a number of different knowledges of the environment in operation at the same time and Pellizzoni’s (2003) assertion that contemporary environmental issues are often characterised by situations where traditional ‘expert’ knowledges no longer carry more weight than so-called ‘lay’ knowledges. Indeed, Pellizzoni (2004) is of the opinion that openness, listening and inclusion are a good requisite for addressing uncertain or controversial issues such as those I am researching, as is the importance of retaining focus on actual results and the practical implementation of technology. It seems logical to base my research on theories of environmental ethics that acknowledge the possibility that there is not one ‘correct’ way alone to address environmental issues. What is thus most important is to think through a framework that, following Holland and O’Neill (2003), allows the various narratives and world

views associated with environments to be weighed up in light of localised contexts and permits as many stakeholders as possible to be engaged in the deliberation process in a manner in which they feel comfortable (after Haggett, 2009).

Sagoff (1992) and Katz and Light (1996) argue that whilst actors may approach a situation with widely differing standpoints, a great deal of common ground can often be found in practice – for Mounet et al (2004), this may be something as straightforward as the common conviction that the environment should be preserved, either for itself or for humans, whereas for Kitchell et al's (2000) study of environmental consumer groups, it was practice itself that was similar in spite of differences in identity and broader motivations. Dovetailing well with Grasseni's (2004) belief in the effects of locality on world views, Weston (1984) suggests that once the interwovenness of values is recognised, the possibilities of critical challenge and change emerge clearly. Or, to put it differently, Kempton and Holland (2003) claim that even when there is disagreement about a value, it is often possible to understand *why* there is disagreement. Under an approach grounded in environmental pragmatism, then, a key premise is that all environmental values can be opened up to critical scrutiny, illuminating the processes of reasoning and value formation so that areas of commonality from which to work together in practice may be found.

Although the ideas of environmental pragmatism I am drawn towards tend to focus on practical outcomes and prioritise meaning and values drawn out of experience (Thomson, 2003), it is important to register that I do not intend to go as far as Norton (1995) and set broader metaphysical debates completely to one side. Rather, following Klaver (1995) and Humphrey (2003) I believe that thinking about how the environment is experienced and valued can play a vital role in understanding how people reason towards particular viewpoints and actions, and I am with Jenkins (1998) in believing that a broader ethical understanding of ecological problems is necessary. As Clayton and Opatow (2003) put it in the context of ecological identity, understanding how identity mediates behaviour towards the natural world can practically aid decisions made to protect the natural environment.

Rawles (1995:162) expresses a balance of wider moral considerations and practical action, “(w)e do not need to know the precise status of value in nature, nor exactly what is meant by nature, before we can conclude that rain forests should not be destroyed at the rate of a football field per minute”. Even Curry (2006), arguing from a strongly ecocentric viewpoint, concedes that alliances with those from anthropocentric or ‘light-green’ premises must be forged when there is real potential common ground on a particular issue without the sacrifice of ecocentric principles. Perhaps, therefore, Light’s (1996) focus on the practical contributions of different philosophical positions, whilst not losing sight of the serious and immediate nature of environmental problems themselves, is the best way to articulate what I am aiming for – that is, a recognition of the contributions philosophical debates can make to practical situations without getting bogged down in theoretical issues.

The pluralistic and action-focused nature of environmental pragmatism also helps to negotiate a more fundamental question about the kind of work I am doing; namely, why should the environmental values of stakeholders involved in something so seemingly environmentally destructive as motor sport even be granted time and attention, given the apparent negative effects they have on the environment? Indeed, as Hettinger (2008: 425) puts it in the context of a plurality of aesthetic experiences:

Developers whose stereotypical view of swamps leads them to believe that putting a racetrack next to a swamp nature preserve is unproblematic need not be taken seriously because their evaluation is founded on a misunderstanding of swamps.

Whilst I do not disagree with Hettinger about the role of a lack of understanding in perpetuating environmentally damaging practices, I am concerned by his assertion that some stakeholders ‘need not be taken seriously’. If one is to follow the principles of environmental pragmatism and put the needs of the natural environment first, then surely the aesthetic experiences and values of racetrack builders need to be taken seriously, because whether we like it or not, there are people who do hold such world views, who do conceive of the environment in this way, and who are capable of going out and building things like racetracks near to swamps. In other words, if real and tangible action for the preservation of the environment is to happen, then

perhaps one does need to acknowledge that there are stakeholders whose views and values maybe jar with our own. As these people do have an impact on the environment as they go about their lives, we thus need to afford serious time and consideration to understanding what moves people to act in such ways if an outcome beneficial to the environment is to be reached.

3.1.4 Deliberation and environmental ethics

At this juncture, it is necessary to consider in more depth what is meant by ‘deliberation’. Burgess et al (2007: 301) contend that:

Authentic deliberation is not about winning arguments but about reasoned exchange and social learning over the possible resolutions. This may (eventually) lead to the identification of a single most reasonable course of action [...] (h)owever ‘right’ may mean no more than workable in the sense of agreeing on a circumscribed area of common ground.

O’Neill (2001:491) brings this closer to democracy and politics, describing the deliberative process as “a forum through which judgments and preferences are transformed through reasoned dialogue against the picture of democracy as a procedure for aggregating and effectively meeting the given preferences of individuals”. From the outset, the basic principles of discussion and reason underpinning environmental deliberation seem to link in well to the concepts of pluralism and adaptability that run through the literature on environmental pragmatism. It is therefore my view that a process of environmental deliberation, where sequences and reasoning behind environmental value formation are opened up to scrutiny, is the most effective way to work towards a pragmatic ideal of workable and tangible environmental responsibility based on shared environmental values.

It is also important to make clear here that when I speak of ‘deliberation’, I am not only talking about more formalised discussions that take place in government offices or town halls. Stern and Finneberg’s (1996:73) description of deliberation as the way in which people “confer, ponder, exchange views, consider evidence...negotiate and attempt to persuade each other”, fits equally well with less formal discussions, for

instance when people speak about environmental issues in naturally occurring talk. Paying heed to Haggett (2009) about formalised deliberation settings not always being appropriate for every stakeholder group and O'Neill (2007) about non-participation in formal deliberation processes as a conscious act of resistance, I would therefore like to expand the term 'deliberation' here to encompass more informal or personal conversations on environmental issues. I believe it is important to remain open to the possibility that for some stakeholders, these informal conversations are the main way in which they deliberate environmental issues.

What, however, might the role of environmental philosophy and in particular environmental ethics be in this deliberation process? As proposed by Rawles (1995), the use of environmental philosophy should not be didactic, rather it should head towards Norton's (1995) 'practical philosophy'. By this, what Norton means is a form of environmental philosophy that begins with real-world dilemmas and only introduces theory where necessary, retaining the practical element as far as possible. As Rawles puts it, environmental philosophy needs a constant pulling back to the question 'how does this help?' To this, however, I wish to add Rawles et al's (2006:130) understanding of "applied philosophy, when it is correctly understood" which places emphasis on the challenge posed to philosophical ideas by particular situations, thus returning to the point made by Light (1996) that philosophical positions can themselves make practical contributions and should thus not be completely disregarded.

The question nonetheless remains of what philosophy can offer in practice, something best addressed through empirical examples. Varner et al (1996) and Shapiro and Takacs (2006) both show in a very practical way how ideas derived from a branch of environmental philosophy – namely environmental pragmatism – can help stakeholders to identify their own personal values and ethics. In Varner et al's work with stakeholders involved with a land conservation dispute in Texas, workshop sessions where individuals had to argue from each other's viewpoints resulted in greater awareness of the values of the other participants. Varner et al noted that by the end of their workshop sessions, participants were articulating each

other's positions clearly and putting forward sophisticated points about conservation. Similarly, Shapiro and Takacs' university course in environmental ethics began with personal ethical dilemmas students faced in their daily lives. These dilemmas were used to help students articulate their own environmental ethic, which was subsequently applied to much 'bigger' normative questions. The advantage of this, argued Shapiro and Takacs, was that students did not feel intimidated by having to tackle huge normative questions from the outset and were free to 'experiment' with trying out different ethical standpoints in a non-confrontational classroom setting.

It can therefore be argued that ideas from environmental philosophy – in this case environmental pragmatism – have been used to develop techniques of deliberation that have produced successful outcomes. Furthermore, the focus on understanding the *process* through which values are formed, negotiated and expressed in these pragmatic approaches goes some way to meeting Gross' (2007) standard of fairness in process *and* outcome. Nonetheless, I also wish to add Haggett's (2009) challenge of finding appropriate answers for different localities through public engagement. This reinforces the idea of a two-way process where philosophy can potentially learn as much from the deliberation setting as the deliberation setting can from philosophy, so that the role of philosophy is not one of dictating what individuals or groups 'ought' to do in any particular situation. Indeed, numerous empirical investigations suggest there is much environmental philosophy can learn from observing the deliberation process in practice.

For instance, Sagoff's (2004) analysis of forest management in Quincy, California, illustrates that environmental philosophy may be able to learn as much from the ways people express and negotiate their values as deliberation can benefit from the insights of environmental philosophy. Sagoff explores deliberations over the management of a forest close to the town of Quincy, where environmentalists, local officials and timber industry representatives managed to find an outcome amenable to all after fifteen years of conflict between the various interest groups over the scale and nature of commercial logging. Nevertheless, Sagoff notes that in order for these conditions of deliberation and consensus to flourish among a community divided

around the issue of commercial logging, several things had to happen. Firstly, Sagoff argues, the actors had to realise they had reached an impasse detrimental to all. Second, they had to acknowledge the need to solve a problem rather than sustain a campaign. Thirdly, the dispute had divided the community of Quincy so badly that a great deal of animosity had emerged. And finally, the threat of a forest fire served to focus attention on protecting the one part of the environment which all parties valued – the forest. There are two points I wish to make by raising this. The first is to illustrate the potential difficulties in building consensus, and how it may take some kind of immediate danger in order for the ‘common ground’ so often alluded to in environmental pragmatism literature (Light, 1995; Norton, 1984; Sagoff, 1992) to emerge. The second is to give an example of what a focus on the deliberation process may be able to say to environmental philosophy literatures – in this case, that fair processes and outcomes may be hard to achieve in practice.

It is therefore plain that a form of environmental deliberation that draws on the concepts and ideas of environmental philosophy – and I would hope that my earlier discussions of ecological identity and world views illustrate the importance of considering environmental philosophy alongside deliberation – needs to do so in a manner that does not over-privilege academic discourses on environmental ethics. Thomson’s (2003) assertion that experts should have no monopoly over the use of scientific knowledge gives further ethical justification for taking different knowledges into account simultaneously. At the same time, though, O’Neill (2007) raises the pertinent point that publics cannot be ‘experts’ in every situation and may sometimes have to rely on the authority of others in order to make judgements. The issue, O’Neill argues, is thus one of knowing when to trust the claims of others and when to be sceptical. Irwin (1995) adds an additional layer of complexity by explaining that ‘everyday thinking’ and ‘knowledge in action’ are potentially less well-understood and more complex than seemingly ‘scientific’ ways of thinking.

With this in mind, Midgley’s (1989) target of publics able to actively engage with debates and be critical of ‘expert’ knowledge is perhaps a more realistic goal to aim for than publics who can be considered ‘experts’ in every field. This would help to

meet my aim of environmental philosophy providing a non-didactic role in the deliberation process. Yearley et al (2003) give an example of this with reference to air pollution in three cities in the United Kingdom – in their case study, cyclists were allowed to annotate ‘expert’ Geographical Information Systems (GIS) maps of environmental pollution, highlighting the areas where they felt pollution was worse and offering additional information in the form of notes stuck on to the map. It is precisely this model of ‘publics’ being able to challenge or supplement official forms of knowledge and representation that I am aiming for.

Taking all of the above into consideration, it would appear that what I want to work towards is a role for environmental ethics in the deliberation process whereby the positions and standpoints of others can be articulated and clarified, where environmental philosophy can help stakeholders to articulate their own standpoints (Kitchell et al, 2000; Shapiro and Takacs, 2006). In this, Hayes-Conroy and Vanderbeck’s (2005) observation that being part of an ‘environmental’ group can be exclusionary and that there has to be a role for personal experience in ecological identity formation must not be forgotten. Indeed, as Rawles (1995) argues, the role of environmental philosophy can serve as much as a guard against over-zealous forms of environmentalism as against uncritically anthropocentric practices. Under this form of deliberation, for instance, statements such as Tompkins’ (2007:vii) assertion that some forms of motorised recreation are “simply wrong” would be opened up to an analysis of what it is in particular about motorised recreation that is objectionable, so that, after Kempton and Holland (2003), even if the disagreement cannot be resolved the stakeholders concerned can begin to understand why there is disagreement.

3.1.5 Outcomes, problems and issues

Throughout this section I have attempted as far as possible to avoid the use of the term ‘solutions’ to describe the outcomes of deliberation or decisions reached on the best way forward for all stakeholders and the natural environment. I have done this in light of O’Neill’s (2007) point that there may be some situations in which disputes

cannot in fact be resolved, rather they can be 'lived with'. By this, what I take O'Neill to mean is something similar to what Norton (1995) and Curry (2006) are referring to when they say that an agreement in practice can be reached even if fundamental differences in principle remain. This relates well to the overarching themes of environmental pragmatism that I see my own research being based on, not least because the thoughts of Cafaro (2007), Dery (2006) and Wuerthner (2007) suggest to me that regardless of what the outcomes of deliberation over motorised recreation in my case study might be, fundamental ethical objections to cars may remain.

Indeed, even Pellizzoni (2003) finishes his discussion on intractable disputes with the caveat that a locally suitable solution may be attained. This is not to ignore the importance of drawing links to philosophical and ethical ideas during and after the deliberation process, rather it is to return to the point of Minteer and Manning (1999) that resolutions to real-world problems should remain at the fore of environmental ethical thought and Weston's (1985) belief that inclusiveness and open-endedness can get past the problem of different people holding irreconcilable views. In sum, I am with Curry (2006) in believing that as long as fundamental ethical principles are not contravened, alliances with other stakeholders ought to be formed wherever possible.

If the outcome of the deliberation process is not always as clear-cut as a single solution, then, what might be the hallmark of 'successful' deliberation? Gross (2007) holds that fairness in process is as important as fairness in outcome, that is, people are more likely to be satisfied with the outcome if they feel they have been treated fairly during deliberation, regardless of whether the outcome is in their favour or not. Sagoff (2004) goes even further to suggest that even if a resolution or outcome cannot be reached, a successful deliberation process may be one in which two or more previously opposing sides have come to understand each other's viewpoints and realise an aspect of common value in the natural environment they can cooperate to protect. For Harrison and Burgess (2000), the act of involving publics in the deliberation process was enough to make those involved feel they had a stake in the

outcome that was reached and a stake in the process of deliberation itself. What these points suggest to me is that whilst there is much to be said for Norton's (1995) forceful emphasis on practical outcomes through environmental pragmatism in terms of not becoming bogged down in theoretical debates, perhaps 'real-world' stakeholders *do* value the less immediately visible effects deliberation can have on ecological identity work and *do* take something from the opportunity deliberation gives them to understand how others reason towards their values and preferences.

Questions of identity during the deliberation process are also paramount. I am in agreement with Kitchell et al (2000) and Light (2000) that as ecological identities operate in conjunction with other identities, the challenge is not one of attempting to isolate ecological identities but evaluating what other identities they work best in conjunction with. Nonetheless, identifying these identities – and more importantly observing how they shape the environmental beliefs being put forward – is not necessarily straightforward. Adams (1995) believes people can adopt several different types of behaviour depending on the social context in which they are in, with further complications arising when different social contexts – work, family, leisure – cannot easily be separated (*ibid*). Indeed, Hydén and Bülow (2003) note that professional and personal identities can 'talk' in quick succession without any clear indication of which identity is 'speaking' at any one time. Given Dobson's (2003) blurring of the public and private spheres under his model of ecological citizenship as a way to work towards environmental responsibility, I do not believe that a change in 'speaking' identity would have a notable effect on the environmental values being expressed at any one time during the deliberation process. If one of the academic objects of the deliberation is to respond to Light's (2000) challenge of thinking which identities ecological identity can be best twinned with, however, getting a grasp of which identities are coming through during deliberation becomes quite important.

Issues of participation also remain. As well as Pellizzoni's (2003) point that the uncertain nature of many environmental issues makes deciding who is and who is not a stakeholder more difficult, Sagoff (2004) points to the problem of 'mischiefs of

faction'. That is, for some choosing not to participate in the deliberation process can be a conscious act. As O'Neill (2007) elaborates, engaging in deliberation with an adversary can arguably legitimise the opponent's viewpoint by suggesting that viewpoint is valid and worth consideration. One major challenge for environmental deliberation is therefore to consider the voices that may not be present within the deliberation setting, and why it might be that these stakeholders do not wish to participate. Conversely, Sagoff (1992) also warns of the dangers of assuming polarised positions when none may in reality exist, and Haggett (2009) gives the example of fishers in wind farm deliberation whose culture of oral tradition and informal contact meant that a formalised deliberation setting was not the most appropriate forum for them to express their views.

3.1.6 Conclusion

A brief overview of literature pertaining to environmental ethics has suggested environmental philosophy need not be distant from deliberation over practical environmental issues – thinking carefully through how environmental values are formed and what exactly humans value is a crucial part of building sustainable futures. The framework of environmental pragmatism has been discussed as a means of foregrounding the practical outcomes of environmental discussions without losing sight of broader philosophical debates. Indeed, I have suggested that 'real-world' examples may be able to contribute as much to environmental ethics as more academic literature can to practical situations. I have also talked about the value of deliberation in working through complex and deep-rooted environmental conflicts, taking a broad view of deliberation that includes informal conversations and discussions. Nonetheless, I have also referred to empirical examples to illustrate the importance of keeping realistic expectations about the outcomes of deliberation, noting a range of stumbling blocks to environmental deliberative processes.

3.2 Ecological Citizenship and Responsibility

3.2.1 Introduction

This section of the chapter argues that contemporary environmental issues such as the case study of motor sport in Scotland can most effectively be considered by remaining open to the possibility that different people may see their relationships to the natural environment differently. I suggest that for cases such as motor sport where the majority of participation is on a recreational and often informal basis, drawing on embodied and contextualised experiences of place and associated values might be a more helpful way to shape environmental responsibility than regulation alone.

Rather than proposing a single model of care or responsibility towards nature for this case study, then, I think about several different conceptualisations of how stakeholders can look after the environment, and suggest that these different models can exist simultaneously. I argue for the importance of personal environmental values in shaping environmental responsibility, with particular focus on the concept of ecological citizenship as a means of working towards care for the environment. I will also take time to consider what it means to be ‘responsible’ for something and how this responsibility might be shaped, and will think about how ideas of responsibility might square with widely differing knowledges and world views between stakeholders. In turn, I discuss how the ideas of care might apply in a motor sport setting, focusing on place values and relationships to other humans as ways to bridge the links between ‘care’ and a *seemingly* masculinist activity such as motor sport. Finally, I will argue that the emotional aspects of car ownership and car driving necessitate an approach that pays attention to care and relationships, as opposed to a more managerial solution based on the drawing up of rules and laws.

3.2.2 Ecological citizenship

With much of the interaction within the Scottish motor sport framework being at the interpersonal level – as I explained in Chapter 2 - it may be more useful to think about the individual or community in relation to environmental issues as opposed to the relation of the organisation or corporation to the environment. With this in mind, Dobson's (2003) idea of ecological citizenship seems an attractive starting point for considering environmental issues in this case study. According to Dobson, ecological citizenship places individuals in a community that is extended to include the surrounding natural environment as well as other humans, and Carter and Huby (2005) add that it is assumed that the aim of ecological citizenship is some form of sustainable development. The principal obligation of ecological citizenship, argues Dobson, is to ensure that humans make a sustainable impact on the environment and do not compromise the ability of others in present or future generations to pursue options that are important to them.

Dobson states that this care is non-reciprocal, in other words humans cannot expect anything in return for their gestures towards the environment. Hayward (2006), however, offers a more nuanced version of the ecological citizenship model broadly in agreement with Dobson's ideas, except that it introduces the concept of rights. Hayward agrees with Dobson that the concept of humans as citizens in a broader biotic community is a useful way to begin to consider environmental responsibility, however he sees no reason why rights cannot be twinned with responsibilities to create a system of rights and responsibilities that more closely mirrors traditional notions of responsibility (see Torry, 2000; Hamman and Acutt, 2003). As Hayward (2006:444) explains, "(i)f the rich are to be constrained to recognise obligations correlative to rights, then they have to be acknowledged to be participating in a system of justice in which rights are generally recognised". What I understand Hayward to mean here is that as Western systems of justice generally consider both rights and responsibilities, bringing rights into Dobson's ecological citizenship model may make it appear more engaging to publics by more closely mirroring commonly accepted ideas of rights, responsibilities and justice. In my case study, for

instance, the argument could run something like ‘you value this environment and therefore have a responsibility to care for it, but caring for it in return gives you the right to enjoy this environment in a non-destructive manner’. Hayward’s addition to ecological citizenship thus helps to sidestep the issue of why ecological citizens *should* care for the environment by adding elements that citizens can expect to benefit from in return for their care.

Hayward also goes some way to explaining how ecological citizenship may work in practice by drawing on the idea of ‘resourcefulness’. Hayward sees resourcefulness as both the careful use of natural resources, and also the avoidance of rendering things that should be considered to be of inherent value as mere resources. Hayward therefore argues that developing the virtue of resourcefulness is in humans’ own interests, for it forms a fairly non-contentious part of the notion of ‘a good life’ that does not require humans to relinquish the idea of self-interest. To this I would also like to add that encouraging humans to behave in a ‘resourceful’ manner as opposed to a purely ‘responsible’ manner ties in well to the earlier comments about environmental philosophy not telling people what they should do – that is, the concept of resourcefulness suggests a reciprocal relationship between humans and the natural environment, provided it is enacted critically to avoid a strongly anthropocentric ethic emerging.

By refining the otherwise very sound and attractive ecological citizenship model, I believe a very useful and workable way of working towards some kind of ‘genuine’ environmental responsibility based on the values humans place on the natural environment can be roughed out. What I will do now is discuss the idea of care as an alternative way of thinking about respect for nature, however through doing so I will illustrate that ideas of rights/responsibilities and care can work alongside one another in shaping an ethic of responsibility for the environment.

3.2.3 A relational sense of (environmental) responsibility

Massey's (2004) 'geographies of responsibility' works on the idea of responsibility as relational, referring back to Gatens and Lloyd's (1999) reformation of the notion of responsibility as related to wider cultural contexts rather than simply being construed at the scale of the individual body. Massey sees responsibility as coming through proximity, however she does not mean purely spatial proximity – instead she considers responsibility as arising through the relational construction of identity, holding that “we are responsible to areas beyond the bounds of place not because of what we have done, but because of what we are” (Massey, 2004:16). In other words, it is through considering how our identities are formed and related to others that we may be able to feel responsibility to people and/or places that are not spatially proximate to us.

Massey's conception of responsibility based on relational identities ties in very well to the critical deliberation on ecological identity formation and its effects on environmental behaviour raised in the previous chapter. That is, if responsibility is conceived of as relational, then illuminating the links between people and places in a deliberation setting may be one way of working towards the 'genuine' responsibility I am aiming for. What I am getting at here is that viewing responsibility as something working at both the scale of the body and wider cultural contexts, a clearer 'audit trail' from environmental values through to ecological identity work and on to environmental responsibility in practice based on these values and actions may be formed, as at every stage the relationship between the individual and the environment as presented as being both embodied and culturally shaped.

Putting this in an explicitly environmental context, Sadler (2004) notes that as roles and responsibilities can become fragmented over time and space, proximity does not always have to be purely spatial. This links in neatly to Massey's geographies of responsibility, and Cheney (1987) does indeed suggest, albeit from a deep ecological perspective, that ideas of proximity can be one way of thinking about care for nature. Cheney makes an important practical point, however, noting that humans may care

more for an area they live in more than distant areas not because the other areas are worth less, but because they *can* care more effectively for the areas in which they live. Kitchell et al's (2000) study of consumer groups in America illustrates this - because the group members lived close to one another, they were able to more easily organise group environmental activities and also support each other's endeavours through face-to-face contact. Whilst conceiving of responsibility as relational and linked to identity can help to get past the problem of caring for those not spatially proximate, therefore, it is still important to register that practically caring for place can perhaps be done more effectively for places humans are spatially close to. Given my focus on practical and tangible environmental outcomes, this is an important point to bear in mind.

To what extent, though, can responsibility be clearly defined for my case study, and what is at stake if responsibility cannot be clearly defined? Both Irwin (1995) and Pellizzoni (2003) note that multiple understandings of environments characterise contemporary environmental issues, with different conceptions of risk and responsibility leading to a situation similar to that suggested by Harrison and Burgess (2000) where a number of different ideas about what is an appropriate way to behave towards nature may exist at the same time. To this end Pellizzoni (2004) puts forward the idea of 'responsiveness' as a way to consider responsibility in contemporary environmental debates characterised by high uncertainty and multiple knowledges. Pellizzoni (2004:557) explains responsiveness as:

a situation where there is neither presumption of sufficient knowledge and control nor reliance on ex-post accounts and adjustment of self-established courses of action, but rather a receptive attitude to external inputs to help in deciding what to do...(i)t entails readiness to rethink our own problem definition, goals, samples, and identity.

The ideas of listening to others and critically considering one's own goals and identity can only serve to bolster this study's grounding in environmental pragmatism. In terms of how responsiveness relates to responsibility, Pellizzoni (2004) believes responsiveness is the best way to enact responsibility in light of the nature of contemporary environmental issues – in other words, part of being

‘responsible’ for a natural environment is to remain open to the possibility that there may be different ways of understanding, valuing and caring that environment and to take these differing voices into account as part of developing sustainable futures. In this regard, responsiveness also makes sense with regard to respecting nature, in that it encourages being responsive to and ‘listening’ to nature rather than assuming we know the natural environment’s needs. Responsibility in this sense, then, refers not only to the duties one may have towards the natural environment, but also the process through which these duties are negotiated and assigned – again linking back to the theme of fairness in outcome and process in the deliberation process identified by Gross (2007).

3.2.4 Caring for the environment

Much in the same way as responsibility, care is another term I have drawn on in the preceding sections somewhat briefly and uncritically. Again, however, it is worthwhile unpacking what is meant when one speaks of ‘care’ and why it is a useful concept for me in my research. Virginia Held (2005) sees care as both a practice and a value. As a practice, Held claims care shows us how to respond to others and explains why we should respond to others. As a value, Held believes that being responsive and attentive to the needs of others is something that should be valued, and is something that exists in the relationship between people. Although Carol Gilligan (1982) discusses care as being a different ‘voice’ through which responsibility may be discussed rather than something correlative to rights and responsibilities, Held suggests that to advocates of the ethics of care, care involves moral considerations at least as important as those of justice. It is worthwhile noting that Gilligan’s case study looked at teenage girls from a feminist perspective and found that they spoke of responsibilities towards other humans in terms of care - a non-reciprocal gesture perhaps close to what Dobson (2003) is referring to when he speaks of ecological citizens’ duties to the environment. Held views the ethics of care as being just as appropriate for men as for women, and her emphasis on being responsive and attentive links back to Pellizzoni’s (2003) concept of responsiveness I discussed in the previous section. I am therefore interested in evaluating if or how

concepts developed from a strongly feminist perspective may be applied to something seemingly as gendered and male-dominated as motor sport.

From the outset, Harper's (1987) ethnographic study of Willie, an independent Saab car engineer in northern New York State, hints that care and 'masculine' pursuits of car repair and 'heroic' engineering need not be separate. Over the course of his study, Harper noted that Willie would carry out all sorts of repairs on machinery in a largely low-income rural community, often charging prices well below what one would expect the job to cost. The repair of cars in Harper's study similarly did not seem to follow economic logic, with lucrative jobs being set aside or delayed to allow much smaller jobs to be done for acquaintances or members of the community. This to me illustrates the potential for ideas of care and kinship networks existing in places one may expect to find more formalised working relationships, and thus the importance of showing sensitivity to the forms of interaction among my research participants.

Working with the concept of care is not however to devalue the twinning of rights with responsibilities that Hayward (2006) sees as making ecological citizenship engaging to publics. Rather, it is to remain open to the possibility that different stakeholders may choose to express their environmental values in different ways and – as Gilligan advocates – create an analytical framework that moves towards allowing participants to 'speak on their own terms' as much as possible. Indeed, Rolston (2008) suggests that showing 'appropriate respect' and 'appropriate admiration' of nature is more important than questions over whether the language of care or duty should be used. In other words, in keeping with the environmental pragmatic ideas of agreement in practice and deliberation over principle, whilst the correlation of responsibilities with rights may make action towards the environment engaging for some, a narrative of care may motivate others to take action. Remaining open to these different ways of perceiving humans' duties or obligations towards the environment is arguably a crucial part of Pellizzoni's (2004) responsibility via responsiveness.

Nonetheless, Cheney (1987) further explores the possibility of care as a means of acting for the benefit of the environment at the individual and local scales, and Pellizzoni's (2004) point about care being grounded on factual and normative beliefs does deserve further exploration if one is to understand how notions of care may be formed in practice. Rawles et al (2006) hold that a critical approach to values and ethics requires emotional as well as intellectual engagement, meaning not all formation and reflection on ethics and values can be compared to a cost-benefit analysis as humans engage emotionally and experientially with their environments. This emotional engagement suggests to me that a sense of care is something that may be drawn out of most if not all humans. In terms of how one may come to care for a natural environment, McShane (2008) puts forward the point that much of our sense of our own identities has been shaped by living in natural environments that are familiar and predictable, and that rapid change in these environments is likely to have a deeply unsettling effect. The unsettling effects McShane believes sensing landscape change can have on humans hints that some sort of sense of care towards the natural environment already exists within many humans. The challenge then becomes one of teasing out, making explicit and mobilising this 'tacit' care that many may already unreflexively perform.

Even if care towards the environment cannot immediately be mobilised in all humans, O'Neill (2007) sees care for other humans as one way of working towards a broader ethic of care for the natural environment. O'Neill explains that in a good society, some of the members will express care for the land, and even if their friends do not themselves care for nature, they will still care for the happiness and enjoyment of *their* friends. If the enjoyment of those friends who do value nature depends on the well-being of the environment, then the well-being of the environment then becomes important to those who may not themselves value nature as it will affect the happiness of their friends (*ibid.*) This illustrates that not everything can – or should – be reduced solely to individual values, for O'Neill's point indicates that by working at the scale of friendship groups as opposed to the individual, it may be easier to instil a broad ethic of care towards the natural environment even if this is via proxy.

3.2.5 But why not just make a lot of rules and laws?

When I speak of a ‘genuine’ environmental responsibility, what I mean is this: a form of environmental responsibility based on the environmental values and experiences stakeholders already hold, a form of responsibility that mobilises the feelings participants may unconsciously hold towards their natural environments due to the role these places have in their identities, be it as individuals or ecological citizens. It is through this consideration of the individual, their identity and their relationship to the natural environment that I also believe openings to changes at larger scales may be possible.

“But surely the simplest thing would just be for these people to stop driving, wouldn’t it?” This is the kind of response I have grown accustomed to hearing when I tell people about my research, and it does raise a fundamental question. Namely, rather than carefully thinking through ecological citizenship, care and relational responsibility, why not develop a range of strict laws and regulations that tightly control the environmental impacts of activities such as motor sport, thereby reducing the negative environmental effects without a lengthy and difficult deliberation process? The question of regulation is an issue that goes right to the heart of moral philosophy, however I shall try my hardest here to keep the debate contextualised – if nothing else, doing otherwise and becoming paralysed by abstract philosophical debates would be doing my base in environmental pragmatism a massive disservice!

Sheller (2004:236) provides a very clear justification for careful consideration of the embodied and emotional aspects of car driving, observing in the first instance that the vast majority of car users continue to drive their vehicles in spite of mounting ethical criticisms. It is this that leads her to question the stubborn persistence of car drivers and state that:

Cars will not easily be given up just (!) because they are dangerous to health and life, environmentally destructive, based on unsustainable energy

consumption, and damaging to public life and civic space. Too many people find them too comfortable, enjoyable, exciting, even enthralling.

In this, there is the implication that there is more to the driving of a car (Urry (1999) terms this whole system of cars and personalised transport ‘automobility’) than the freedoms of being able to go where one pleases when one pleases that Urry’s (1999) early thoughts on automobility foreground³. This serves as an excellent illustration of Holland and O’Neill’s (2003) point that one way *not* to get hold of environmental issues is to attempt to itemise and aggregate the ‘values’ of the different items that appear in a situation, thereby neglecting the contextual nature of values and making the assumption that all values are commensurable. That is, it is perhaps not possible to directly weigh up the values of excitement and enthrallment associated with driving a car against the values associated with the preservation of the natural environment. Attempting to regulate the use of cars for pleasure on grounds of a direct comparison with environmental effects could therefore be a fruitless exercise as the two sets of values are perhaps not commensurable with one another in the first instance - as this extract from a performance car magazine illustrates:

We’re not going to change. Whether it’s the sense of freedom and exhilaration that comes from driving a fast road car or the adrenalin buzz of chasing lap times around a race track, it’ll take more than the drip-drip of propaganda from the environmental lobby to stop us. However, it’s inevitable that we’re going to have to adapt.

(Evo: The Thrill of Driving Magazine, Issue 118 (June 2008), Page 154).

In this extract, the resistance to regulation or pressure is made explicit through the forceful opening sentence of “we’re not going to change”. Nevertheless, the caveat “it’s inevitable we’re going to have to adapt” provides an excellent link between this and the next point I wish to make with regard to laws and regulations. On one hand, this idea of adaptation perfectly illustrates Power’s (2007) argument that trying to

³ Although I do recognise there is a difference between more ‘mundane’ forms of driving where the car is used mainly as a form of transport and the kind of driving at speed for pleasure that I am studying here, I believe Sheller’s view on the emotions of the car still holds for the case of rally driving. I explain why in the subsequent *Mobility and Value* sub-section of this chapter, but essentially I argue that driving for pleasure is an emotional, embodied experience of the kind Sheller discusses.

outlaw recreational vehicle use in one area may simply drive motorised recreation enthusiasts to different areas. At the same time, however, the mentioning of adaptation in the above excerpt can also be taken to suggest that even though automobility is for some a very emotional and engaging experience, a moral imperative to adapt and to address ethical environmental criticisms remains. This links back to Sagoff's (1992) warning about the danger of assuming polarised positions from the outset in environmental debates, and also relates to Thomson's (2003) call for academics not to be overly sceptical when viewing the outcomes of environmental deliberation processes. Referring to the case of the removal of leaded petrol from petrol stations in the United States of America, Thomson points to the ability of consumers to act in the interests of the natural environment, and also the ability of the government in part to respond to environmental and health, alongside economic, considerations. Although Thomson does concede that economic and public health goals conveniently matched environmental goals in this case, her point that possibilities for commonality in practice and deliberation over principle may be overlooked if one simply assumes stakeholders are unwilling to adapt is still valid.

Adaptation aside, the setting of targets under regulation remains problematic. Whilst Hamann and Acutt (2003) argue for an insistence on tangible standards and monitoring agreements, Schlosberg (2004) demonstrates that the setting of targets to measure environmental impacts can be manipulated so that actual reductions in effects on the environment are negligible. Henderson (2001) goes further to argue that physical targets can become ends in themselves, something Whitehouse (2003) expands on by suggesting companies tend to focus on outcomes and not processes. Given the observations of Sagoff (2004) and Gross (2007) on the importance of process as well as outcome in environmental deliberation, a system of setting targets may therefore not be the most appropriate way to work towards a 'genuine' environmental responsibility. My reason for saying this is that the potential for targets to either be manipulated or become ends in themselves can make these targets seem less contextualised and abstract, removing the association with environmental experience that seems to be so crucial to a form of responsibility based on ecological citizenship and care.

This links closely to Sagoff's (1988) belief that it is much easier to engage humans with environmental debates if it is in their own interests to act. I do not, however, take this to mean that humans will act solely in their own interests and not in the interests of the environment. Doing so would rule out the possibility that the well-being of the environment may actually be in the interests of many, and thus whilst people may appear to be acting out of self-interest they may be doing so as the well-being of the environment *is* in their best interests. This returns to the point made by Pellizzoni (2004) about care for the environment being grounded factually as well as normatively, implying that care for the environment may well be of benefit to humans. To turn the point about the difficulty of getting humans to act for reasons other than self-interest, then, the notion of acting out of self-interest to me serves only to reinforce the importance of using proximity as a means of working towards environmental responsibility. That is, as opposed to the setting of targets and regulations, it may be more productive to develop the idea of humans acting for the environments they have interests in, that is, the environments that are 'closest' to them.

3.2.6 Conclusion

I have argued here for the importance of the concepts of ecological citizenship, care and a relational sense of responsibility in contemporary environmental debates. Owing to the recreational and interpersonal nature of motor sport communities in Scotland, the value in drawing on personal experience and community values has been emphasised. I talked about ecological citizenship as a useful framework through which to conceptualise responsibility towards the environment at a personal level, but suggested the linking of the responsibilities of ecological citizenship with ideas of rights could help to make the concept more appealing and engaging to publics. I also argued that conceptualising responsibility itself as relational can help to make the links between practical care for the environment and the work on environmental values more explicit, and can help to bring ideas of ecological identity into the framework.

After discussing rights and responsibilities in an environmental context, I went on to explore the notions of responsiveness and care as means of shaping respect towards nature. Although the idea of care is often held in opposition to rights and responsibilities, I believe the two concepts can work simultaneously in an ethic of respect for the natural environment, particularly if one thinks about responsibility in terms of being attentive and responsive towards the environment. I also argued that the highly emotive nature of driving for pleasure means many participants will not easily give up this form of mobility, highlighting the importance of tapping into personal values and world views rather than merely setting a number of rules and laws to restrict motor sport.

3.3 Mobility and Value

3.3.1 Introduction

In this final part of the chapter, I discuss the relationship between mobility and valuations of the natural environment, paying particular attention to mobility from on or inside a moving vehicle and how this may affect the original environmental experience and thus the possible values that may be formed or negotiated. Through consideration of embodied experience, sensuous geographies and recent social science thinking on mobility, I argue that if an understanding of how humans come to reason towards particular environmental values and actions is to emerge, it is important to pay close attention to the original, embodied, mobile experience of the natural environment. A key idea that I will think through is that there may be interesting parallels between learning a skilled form of movement over a long period of time and learning to work with the environment in a sustainable manner, and thus that some stakeholders may already have the core skills necessary to ‘learn’ how to act responsibly towards the environment due to previous sustained and challenging learning processes.

I discuss the centrality of mobility to many environmental experiences, not just those of motor sports participants, and also the importance of taking seriously embodied experience and its role in shaping environmental values. I set out what exactly I mean when I talk about place and embodiment in this context, and focus in on the burgeoning field of automobility literature in geography. I contend that although there are certainly differences between more ‘mundane’ forms of automobility and the kind of driving for pleasure that is under study here, work on the embodied experience of driving, and the driver’s relationship to the car and to the surrounding environment, are just as relevant for the rally driving experience. Finally, I spend a little time thinking about the kinds of values that might be bound up with non-motor sport experiences of the environment, with the aim of highlighting how even very small differences in mobility can lead very different environmental values and world views to be shaped.

3.3.2 Why get mobility involved?

Aside from the obvious point that my research is largely concerned with relationships within the natural environment that are formed from inside a moving vehicle, the advantage of drawing on the range of mobility literatures in geography runs much deeper. Ingold (2000) argues that places are experienced not as distinct, isolated points, but rather as nodes along a matrix of mobility. Thinking of place in terms of mobility is therefore perhaps not only an issue that affects car drivers and passengers, but something that affects every experience of place from every different kind of interaction imaginable – even if only, as Lorimer (2008; in Merriman et al, 2008:206) suggests, that mobility is “the continual flux of sitting still”. When these points are taken in combination with Massey’s (1994) well-known work on place as relational – and a fuller discussion of what is meant by ‘place’ will follow in the next section – it becomes apparent that mobilities of one form or another play a role in every experience of the environment, and thus for a fuller understanding of the original experience and subsequent values to emerge, careful consideration of the mobilities at play for each stakeholder experience of the natural environment is necessary.

Indeed, this is reflected in the proliferation of literature within geography and the social sciences in recent years on the topic of mobility. Landmark publications such as those by Tim Cresswell (2006; 2010) and John Urry (2007) have sought to get under the politics and social relations that lie behind people's movements, affording serious and sustained thought to the idea that mobility is bound up with much more than merely travelling from one point to another. I will say more about the literature on automobility in particular in Section 3.3.4, but it is pertinent here to mention that the works of Miller et al (2001), Bohm et al (2006) and Paterson (2007) stand of fine examples of how this increased critical consideration of the cultures and politics of mobility has been applied to cars. Miller et al consider people's relationships to cars in a range of social and cultural contexts, whereas Bohm et al and Paterson delve further into the politics of the 'system' of automobility to explore some of the social and environmental injustices such a system may engender.

I also wish to explain the importance of original experience to understanding environmental value formation and negotiation. I touched on this in Section 3.1, but here I want to explore further *how* environmental values are shaped at the scale of the body. Dant and Bowles (2002) make reference to embodied knowledge, which they describe as a way of knowing that comes through practical action. That is, it is through doing things 'in the world' that understandings are formed in the first instance (Crouch, 2001). Furthermore, Ingold (2000) continues that people's knowledge of the environment undergoes continuous formation in the very course of moving about in it. To bring these views together, it is important not to underplay the significance of doing things on the move in the world in shaping the knowledges on which people base their values and world views. If an understanding is thus to be gained of how much 'grander' ideas of ecological identity and environmental ethics come to be instilled in a person, it is thus helpful to look at the nature of their embodied, mobile interaction with the natural environment in the first instance. It is also vital to remember the assertions of Carlson (1979) and Klaver (1995) that the original environmental experience is multisensual. To analyse only the visual aspects

of moving in the landscape, therefore, would be to run the risk of missing fundamental components of the original experience.

Additionally, this research has something to contribute to current mobility thinking in geography and the social sciences. As Sheller and Urry (2006:214) explain in their 'new mobilities paradigm', "travel is not just a question of getting to the destination", and I am interested in taking forward the question of what happens when it is the mobility itself that is of value. In other words, how does one start to get analytical purchase on a kind of automobility such as motor sport where it may not necessarily be comfort (Bull, 2004) or the temporal and spatial freedoms (Urry, 1999) afforded by the car that is valued? In particular, I want to rise to Merriman's (2004) challenge of providing a critical account of the geographies and sociologies of *driving along* specific roads or through specific landscapes, thinking about how the 'motorist' relates to the landscape in a situation where the driving is almost purely for pleasure. Linking this back to the overarching aims of my research, it may be worthwhile trying to come to terms with what precisely is valued in motorised recreation and the kinds of environmental values this type of mobility informs. Doing so may help to identify the things that lead people to continue rallying in spite of ethical criticisms (after Sheller, 2004), allowing these elements to be used as the basis for more a sustainable form of recreational automobility - one where the environmental impacts that are not such a valued part of the motorised recreation experience are reduced. Through careful consideration of how the landscape is broken down into a series of notes and signs in a motor sport context to enable swift and safe progress (for instance via corner arrows, distance boards and 'pace notes' that tell drivers the direction and severity of corners), I would also hope to be able to say something to Cresswell's (2008; in Merriman et al, 2008) challenge to think about how we mobilise landscapes and how landscapes come to be animated.

3.3.3 Place and embodiment

Given Ingold's (2000:219) thoughts on places as "nodes in a matrix of movement", it seems apt to consider place in relation to mobility. Before pursuing arguments about

mobility and place further, however, it is important to get a sense of what is actually meant by 'place'. Cresswell (1996:157) defines place as "a phenomenological-experiential entity (that) combines elements of nature...social relations...and meaning", with the ideas of social relations and meanings gathering extra significance given my broader aim of considering ecological identity in responsibility. Massey (2004) sees place as a site of negotiation that is often conflictual – this idea of meanings of place being contested and conflictual is important to bear in mind, in that it may not be the space itself that is at stake, rather the meanings attached to it. Tuan's (1977) idea of place giving space 'personality' is a useful metaphor for this, reemphasising the importance of paying attention to the social processes and interactions through which place meaning and value are constructed. Again, the deliberation process could tell me much about how values and meanings become assigned to space and how these meanings may be used to justify certain behaviours.

The idea of place values is one way of operationalising these thoughts. By place values, what is meant in this context is the way in which environmental values relate to specific places, and in particular how environmental values can be played out in these spaces. Abram (1996:268) succinctly sums up the significance of place in motivating humans to act towards reducing their effects on the environment, suggesting that "it is only at the scale of our direct, sensory interactions with the land around us that we can appropriately notice and respond to the immediate needs of the living world". As to how this relates to mobility, what I want to consider is the possibility for place experiences and values differing when in a moving vehicle, in opposition to Cafaro's (2007) assertion that being in a motorised, moving vehicle limits experience of the surroundings. Abram (1996) does not rule out a role for technology in sustainable futures despite arguing from a largely deep ecological perspective in his work on the sensuous, so perhaps to dismiss the utility of recreational mobility thinking outright overlooks the heterogeneity of ways in which place value is formed and negotiated.

Further, Rolston (2008) argues that aesthetic experience – by which he means a ‘deeper’ aesthetic experience that considers people’s embodied, situated relationships to nature – is among the most common starting points for an environmental ethic. Berleant (1992) argues that this aesthetic value is based largely on sensuous experience. Berleant’s idea of an ‘aesthetics of engagement’ emphasises the role of embodied experience in forming aesthetic and environmental values, and Saito (1985) too notes that the true value of an object lies in a fusion of its sensuous surface and associated properties. A focus on embodied experience can thus further bolster an understanding of how environmental values are formed by tapping into the aesthetic experiences people have. It thus appears that looking at humans’ embodied encounters with their natural surroundings forms a crucial part of the ‘genuine’ environmental responsibility I am aiming for, because it is at the scale of the human body that the environment is experienced and values are formed in the very first instance. In order to understand how people may reason towards particular types of behaviour, it is vital to evaluate how they perceive their surroundings in the initial, embodied, encounter.

Again, however, before doing so it is worth spending a little time defining what might be meant by ‘embodiment’. Gibbs (2003:2) explains that “people’s subjective, felt experiences of their bodies in action provides part of the fundamental grounding for language and thought”, proposing that embodied experience is fundamental to an understanding of environmental value formation. Whilst I do not agree entirely with Gibbs’ use of the word ‘subjective’, for Weston (1984) argues that seemingly ‘objective’ values and ideas of place can be opened up to contestation, I feel Gibbs’ definition is important for understanding the role of experience at the scale of the body in terms of forming and expressing environmental values. Berleant (1992) and Ingold (2006) further add that this embodied experience is reciprocal – that is, humans are situated within the environment and are not merely passive receptors of stimuli from the environment, rather the body itself plays a key role in shaping the nature of embodied experience. Even when arguments about the effects of wider contexts on making sense of original experience are taken into account, Crouch (2001) reminds us that it is still at the scale of the body that these wider contexts are

enacted in practice. Work at the scale of the human body is therefore important for an understanding not only of value formation and perceptions of responsibility, but also of how respect for nature may be enacted in practice.

3.3.4 Automobility and skill

Within the mobility literature, the burgeoning field on automobility is of particular importance to my work. John Urry (1999; 2004; 2006) speaks of the ‘system’ of automobility, neatly stating that “(t)he car is not simply a means of covering distances between A and B” (Urry, 2006:29). Indeed, Urry goes on to explain that ‘automobility’ can capture a double sense, with ‘auto’ referring reflexively to the human self and also to the objects or machines that possess a capacity for movement. This, argues Urry, helps to capture the sense of the hybrid, not only involving humans but also machines, roads, buildings, signs and entire cultures. Coupled with Sheller and Urry’s (2006:213) assertion that “the time spent travelling is not dead time that people always seek to minimise” it becomes clear that careful consideration of what it means to drive a car could reveal much about why the car is still such a popular form of conveyance in spite of ethical criticisms. Furthermore, it is also important to register that – as Merriman (2009) explains – the automotive experience is anything but homogenous. Merriman suggests that drivers and passengers will have very different embodied engagements with the car and the road, and that drivers’ attention and engagement varies according to factors including familiarity, weather conditions, and levels of experience.

What interests me, then, is to consider what happens when it is the mobility *itself* that is of value. In a motor sport context, competitors are nearly always constrained to following a tight, pre-determined time schedule and a pre-defined route, thereby eliminating many of the freedoms that Urry (2006) sees as a key component of automobility. Vehicles prepared for motor sports are also usually stripped of most of the sound insulation that Bull (2004) speaks of and many of the technological features that remove control from the driver are taken out, so that what is left more closely resembles Urry’s (1999) model of a contemporary African or Asian

“dwelling on the road” where the car-driver becomes part of the environment due to the lack of insulation. Nonetheless, Cafaro (2007:34) still sees the motorised recreation experience as a partial and less valuable encounter with nature in spite of the removal of insulation technologies:

For motorised recreationists, on the other hand, the experience of nature is usually secondary (at best) to the thrills and challenges of the ride. Riders typically rush through areas, often enclosed in a helmet or other cumbersome gear that cuts them off from the sounds, smells, and textures of the world around them and renders them oblivious to all but the most obvious sights.

On this score I disagree with Cafaro (2007) in that I do not believe operating a vehicle necessarily gives a partial view of nature – I agree with Berner (2008) that learning to control a machine does help to develop a particular way of sensing the surroundings so that some features take priority (for instance, Watson (1999) talks about the identification of hazards along the road), however I do not believe that this inevitably leads to an inferior form of engagement with the surroundings.

Indeed, there are a number of empirical works on car driving that afford explicit consideration to how deep relationships with place *can* be formed from behind the wheel of a car. Merriman (2007) considers in great depth the cultural significance of spaces of automobility, charting the space the M1 motorway has occupied within British culture since its opening and discussing the relationship between drivers/passengers and the physical landscape of the motorway. In an explicit off-road context, Bishop (1996) explores the role of place in Australian four-wheel drive owners’ experiences, arguing that to fail to take seriously the experience in-place of off-roaders overlooks the complex relationships between humans, nature and technology that are a part of all environmental experiences. Waitt and Lane (2007) even go as far as to suggest that in some ways, driving an off-road vehicle on an unsealed gravel road can produce a heightened appreciation of place compared to ‘normal’ tourist driving on an asphalt road, noting the roughness of the ride and the increased demands placed on the skill of the driver by such roads as factors that can connect the driver to place.

I would thus argue that piloting a vehicle through a natural landscape draws on the ideas of skill and skilled movement discussed by Ingold (2000) and Dant and Wheaton (2007). According to Ingold (2000), more enquiry is needed into skill and skilled practice with reference to the formation of environmental value. That is, how does undertaking a skilled activity shape the way the environment is valued? Given that Ingold talks at length about the role tools play in mediating the environmental experience - albeit from the standpoint of hunter-gatherer communities - I am interested to see how the skill of using the 'tool' of a rally car or other form of transport to negotiate a natural landscape forms particular environmental values. Taking on board the point of Dant and Wheaton (2007) about the lengthy and conscious period of learning to manoeuvre a piece of equipment in nature (in their study a windsurf board), I am particularly interested in investigating how learning to drive or navigate a performance car informs a certain way of moving in and valuing the landscape.

To relate this to the overall aims of my research, there may be some interesting parallels between learning a skilled form of movement and 'learning' to act responsibly towards the environment. Dant and Wheaton's (2007) observations that skilled activities such as windsurfing require an intensive approach to learning, with a high investment of physical capital and long periods with no increase in pleasure or status, could be argued to mirror Sagoff's (2004) points on the difficulties of getting different stakeholders to deliberate with one another and O'Neill's (2001) belief that humans cannot be expected to be 'experts' in every situation. What I am getting at here is that while environmental deliberation and engagement with environmental issues may be a challenging process, the skill sets it draws of listening to others and trying to understand their viewpoints (Varner et al, 1996), working towards a common goal (Harrison and Burgess, 2000) and focus on process (Gross, 2007) may already be present in some of the participants least expected to have them. Namely, those who have already gone through a similar, lengthy process of learning to reckon

with the environment in a skilled way – those who practice motorised recreation or other forms of skilled recreation⁴.

3.3.5 Different kinds of mobility

Automobility aside, the mobilities and associated environmental experiences of other stakeholders must be taken into account. This is an important part of the environmental pragmatic base of my research, as it may well be through the initial interaction with the environment that the areas of commonality that could form the basis of agreement in practice may be found. As Harrison and Burgess (2000) have also illustrated, engaging other stakeholders in the deliberation process is a key part of finding common goals for deliberation, and it is also worthwhile reiterating the point of Schlosberg (2004) about engagement and deliberation as ways to make distant others ‘closer’ to us. Paying attention to the mobile environmental experiences of the other land users with whom motor sport interacts can therefore do much to enhance the fairness and validity in process and outcome of deliberation in this case study.

Having challenged some of the ideas in the automobility literature about the experience of driving a car and its associated values, I am anxious not to make too many assumptions about the kinds of experiences that may arise from other land uses. Two examples illustrate the remarkable variations in experience and value that can arise from what appear to be very similar forms of recreation. Firstly, Mounet et al (2004) observed river sports in the Ardèche region of France, noting stark differences in descriptions and understandings of the surrounding ‘nature’ depending on participants’ varying trajectories on the river. Secondly, Vaske et al (2000) looked at skier and snowboarder conflict in North America and discovered that whereas skiers preferred to traverse the landscape in its natural state, snowboarders were more inclined to seek out technical challenges in the environment or to modify the surroundings with anthropogenic items. It was this difference in mobility and the

⁴ I wish to thank Eric Laurier for putting the seed of this idea in my head and encouraging me to go and think it through further

associated difference in environmental values, according to Vaske et al, that brought skiers and snowboarders into conflict. It is therefore crucial to carefully think through how very small changes in the nature of mobility may dramatically alter the experience and beliefs that arise from the original embodied interaction.

As well as carefully thinking through differences within mobilities, it is also important to remain open to different interpretations of what mobility itself is. I am thinking here in particular of Lormier's (2008; in Merriman et al, 2008) suggestion that mobility may even be the continual flux of sitting still, and Matless' (2008; in Merriman et al, 2008:198) belief that the narratives of mobility seem "almost to imply that sedentarism might be a sin". Indeed, speaking more generally about mobility, Sheller and Urry (2006) argue that there is no increase in mobility without extensive systems of immobility, and Cresswell (2008; in Merriman et al, 2008) argues for the importance of considering how things stay the same and why some things remain inert. To pull all of this together in the context of my research, perhaps a better understanding of the values particular to mobility and motorised recreation can come by thinking about what happens when the mobility stops.

Usefully, Urry (2006) provides a link between inertia and mobility through his discussion of pauses. Urry argues that pauses are endemic in all kinds of mobility, including automobility, for instance to refuel, park, repair or clean the car and/or its 'driver'. Law and Lynch (1988) meanwhile see pauses as a way of getting some analytical purchase on the unwritten conventions and ways of 'doing' – they argue that when a novice carrying out the activity of bird watching for the first time struggles to identify a bird using a field guide, then much can be learned about the basic competences that are expected of the user and the particular ways of 'seeing' that practised bird watchers develop. Applying this to the context of mobility, it could be argued that pauses or inconsistencies in the movement in the landscape by a novice could help to get under what values are taken for granted (after Midgley, 1989) within various mobilities within the natural environment and thus help to get a handle on the kinds of values that are bound up in these mobilities.

3.3.6 Relationships with the landscape

In the previous sections I have alluded to the idea of the landscape in motion, something that warrants attention in a little more depth. To begin this I wish to challenge Bull's (2004) use of Augé's (1995) 'non-places' to describe "any space passed through in an automobile" (Bull, 2004:252). By making this claim, what Bull seems to be arguing is that travel from inside a car precludes any kind of engagement with other humans or with the surrounding natural environment, much in the same way that Augé describes non-places as sites of solitary contractuality where the usual understandings and values humans ascribe to places are absent. Nevertheless, I agree with Merriman (2004) on the importance of taking seriously the spaces of automobility and I believe that to dismiss the surroundings of all forms of automobility as 'non-places' overlooks the possibility for different kinds of automobility giving rise to differing levels of engagement with the surroundings.

Merriman (2007) considers the links between driving, landscape and visibility with reference to the M1 motorway, exploring the efforts that have historically been put in to landscaping the spaces alongside the motorway. With reference to the number of ways in which the links between car occupants and the landscape have become apparent, such as landscape guides, landscape design discussions and ecological studies of the green spaces alongside motorways, Merriman argues that Augé overstates the novelty of the motorway experience and the role of solitary contractuality in creating a 'non-place', suggesting that to do so overlooks the diverse ways in which drivers (and passengers) inhabit and traverse motorways. In an off-road context, Watson's (1999) investigation into driving in forest and mountain environments similarly revealed that the surroundings were of importance to the vehicle driver and passengers, if only for the simple reason that they presented hazards that had to be negotiated to avoid a crash. Whilst at a very practical level, this nonetheless illustrates that the surroundings in which automobility takes place are engaged with at a certain level and evaluated by the vehicle's occupants.

Perhaps also useful for thinking about the investment of values in the surroundings is Cater and Cloke (2005:15), who note “you can bungee jump off a crane in a car park, but people would far rather do it from a bridge across a deep canyon with raging rapids below...” What this suggests to me is that some kind of basic value at least is ascribed to the surroundings in which mobility takes place. It is thus worthwhile unpacking how participants in motorised recreation feel about the environments surrounding them and why they choose to continue to pursue their recreational activities in such environments if, as Cafaro (2007:34) asserts, they are “oblivious to all but the most obvious sights”. To pursue this further I wish to think more about the interplay between mobility and the surrounding landscape.

To return to Law and Lynch (1988), I want to evaluate how a particular form of engagement with the landscape shapes a certain type of interaction, where humans become ‘trained’ to focus on certain features within the landscape. In particular, I am interested in thinking through the kind of sensing that performance driving – and other types of mobility – informs and what kinds of value formation this may lead to. Büscher (2006) gives an excellent example of the importance of paying attention to how the landscape is evaluated in relation to broader values from the context of landscape architecture. She believes that visual effects are relational and material, arising in relation to embodied perceivers in a multidimensional, living environment. Landscape architects therefore know where they are and how or why this might matter through the unfolding of ‘views from somewhere’ (*ibid.*). Even if the surroundings are reduced to a flat, two-dimensional view during automobility as Urry (2006) and Cafaro (2007) suggest, therefore, the way they are perceived, evaluated and reacted to is still highly contingent on the beliefs and values held by the individual moving through the environment. In other words, just because the act of being in or on a form of conveyance alters the engagement with the environment, this does not mean that emotional engagement between an individual and the natural environment – and thus the formation and negotiation of environmental values – is impossible.

The social values of environmental experience should not be overlooked either. Watson (1999:58) talks of driving as a “division of labour” where passengers play an active role in alerting the driver of the vehicle to hazards ahead and offer their own assessment of the severity of hazards present and how the driver ought to negotiate the landscape features. The way in which the natural environment is evaluated under conditions of mobility is therefore contingent on interactions with other humans at the same time, who may draw the attention of the individual to other features he or she may not otherwise have paid attention to. Taking a slightly different angle, Esbjörnsson et al (2006) see much of the value in spectating at motor sport events as coming from the opportunities for interaction with other humans it affords. Esbjörnsson et al observed spectators at several car rallies and found that discussions among groups over competitors’ driving styles and other informal conversations made up a large part of the motor sport spectating experience. In both of these instances, what is of importance to me is to think through not only how the individual relates to the surroundings they are moving through, but also how interaction with other humans may affect the value associated with mobility through the natural environment.

3.3.7 Conclusion

I have argued here that if practical and workable outcomes for contemporary environmental issues are to be reached, it is important to take seriously the mobile and embodied experiences stakeholders have with the natural environments they inhabit. I have highlighted the centrality of flows and movements to environmental experience, and argued for the importance of taking seriously the embodied experience of nature when considering how environmental values are informed. In particular, I suggested that the sensuous is a key part of aesthetic environmental values, and that our bodies – whilst perhaps shaped by broader contexts – are a significant scale at which values are both shaped and performed.

I went on to briefly explore the concepts of place and embodiment, with the key aim of illustrating the reciprocal relationship between the human body and the natural

environment it is situated within. Moving closer to my own research area, I then discussed recent developments in geographical and sociological literature over automobility, considering how the car may shape our environmental values. Whilst doing this, I was also careful to reiterate the point that whilst many of the ideas of automobility hold for rally driving, others – such as studies into the technologies of comfort in the car and ideas about the freedoms the car affords – are perhaps not as applicable for competitive driving.

Indeed, one of the key differences between ‘mundane’ automobilities and driving for pleasure that I highlighted was that of skill, in particular the idea of rallying as a skilled practice. I tentatively suggested that learning to care for the environment might be – just like learning to drive a car quickly – a skilled practice that has to be learned over a long period of time, and thus that some of the stakeholders I work with may already have the skill sets necessary for ‘learning’ environmental responsibility. Returning to the overarching aim of understanding how environmental conflict can arise with regard to rally driving, though, I reiterated the importance of paying careful and close attention to other stakeholders using the same landscape, using empirical examples to show how very small differences in practice can lead to significant differences in environmental values. Lastly, in an attempt to tie all of this back to the pragmatic aims of the research, I discussed how stories of mobility from different stakeholders could be combined to help imagine a narrative trajectory of place as a means of resolving conflicts at small spatial scales.

What I now want to do is take these challenges from the literature forward and discuss how I can best respond to them in my own work. This necessitates thinking through the complete research design, from its conception right down to the practicalities of how I carried out the research in the field.

4. METHODOLOGY

4.1 From theory to fieldwork: developing a rigorous qualitative research design

4.1.1 Introduction

In this first section of the methodology chapter I will explore how the complex ways in which environmental values are shaped and performed might translate into a workable research design. I will do this by first of all re-emphasising the key methodological challenges thrown up by the literature, then spending some time thinking what exactly ‘narrative’ might mean here and why it is so useful. I will then move towards the more practical aspects of the research by laying out the kinds of techniques I will draw on in order to respond to the challenges set out by the literature. I then explore different ways of analysing narrative data, comparing several different techniques in order to see how they respond to some common analytical shortcomings. Finally, I raise a few issues relating to the presentation of participants’ accounts.

To make it clear from the outset, all of this is going to explain a research design that features ethnography (recorded in the form of video recordings and field notes), in-depth interviewing and two participatory projects. This encompasses both rallying participants and non-participants, and also builds on my own close relation to motor sport as a force for good – as long as it is reflected on critically and appropriately – in gaining analytical purchase and opening doors for research possibilities.

4.1.2 What do I need to do?

Without spending too much time re-visiting the literature, it is useful at this stage to briefly consider the key methodological challenges that have arisen from the literature survey. This will have implications for the methodological issues to be discussed and also the precise methods themselves that will be deployed.

Firstly, the debates on the social contribution of environmental philosophy have illustrated the importance for my research area of thinking through a form of environmentalism that is not overly prescriptive or didactic. This has both theoretical and practical significance. Practically, as Hayes-Conroy and Vanderbeck (2005) have argued, association with an environmental group can seem exclusionary for some, and Shapiro and Takacs (2006) further illustrate the difficulty of grappling with normative questions of environmental ethics in the first instance without considering practical actions. For a group such as the one I am researching where many participants may be ambivalent – if not outright hostile – towards more commonly-held perceptions of environmentalism, therefore, a research design that allows the research subjects to conceive of environmentalism and speak of the environment on their own terms appears to be a key step in developing engagement with environmental issues. More theoretically, remaining open to different conceptions of environmentalism fits in well with broader debates on the social contribution of environmental philosophy and environmental ethics in particular. This ties in especially well with ideas of environmental pragmatism where there is a focus on agreement in practice (Norton, 1995) and the acceptance that one conception of the environment alone may not be a sufficient base for an environmental ethic (Light, 1995). In other words, a research design that allows room for different understandings of environmentalism and the environment has practical significance in terms of engaging broad groups of stakeholders in deliberation, and also theoretical importance in terms of making a contribution to debates on the social purpose of environmental philosophy.

Second is the question of whether or not all participants can even conceive of and articulate values in the same terms. In the previous chapter I explored the complexity of environmental values at the scale of the individual, and also raised the possibility that different stakeholders may have different ways of understanding the world that are not necessarily commensurable with one another. The challenge here is to shape a research design that allows one to work across these potentially different forms of value expression without necessarily comparing them directly to one another. That

is, a methodology needs to be developed that is sensitive to the different expressions of environmental value I may encounter.

Third is the role embodied aesthetic experience has to play in understanding how different value sets come to be formed, negotiated and reasoned towards. I discussed in the previous chapter the importance of taking seriously the body as a site at which environmental understanding is shaped and performed. Enquiry into the sensuous therefore has an important role to play in understanding how our values of the world around us are shaped, and what this means for my research is that getting under the initial embodied encounter with the natural environment is an important starting point for understanding how different values and behaviours are reasoned towards. With Carlson (2000) noting that a thick sense of aesthetic appreciation involves not only the physical appearance of objects but also broader qualities the object conveys, the wider cultural contexts that may shape people's environmental experiences must not be forgotten.

Fourth, a potential trade-off between calculability and adequate representation also needs to be taken into account. Empirical examples have illustrated the difficulty in squaring a research design that allows for the rich, contextualized accounts of participants with the kinds of data that are acceptable to policy makers. With respect to my base in environmental pragmatism and a focus on practical outcomes, a balance needs to be struck between allowing the rich narratives participants present to come through in the final data presentation on one hand, and presenting this data in a manner that facilitates practical action by stakeholders on the other. In addition, attempting to account for, or at least think through the possible effects of, the silences in the data I construct is thus another crucial part of what I mean when I speak of 'adequate representation'.

4.1.3 Why narrative?

As Jones (2004:108) suggests, "the narrative review of literature and narrative as a concept and method in itself are natural allies in doing qualitative research". In the

literature review, the concept of narrative was deployed as a useful analytical tool for working through care towards specific places, in particular thinking about the idea of narrative trajectory of as a way of resolving the ‘best way forward’ for an environment based on what has gone before. Now I wish to reflect on narrative from a methodological point of view, considering the importance of narrative forms and narrative analysis as a means of making sense of participants’ accounts of the environments they move within. I also discuss how I intend to address any potential shortcomings in the concept of narrative.

Burgess and Gold (1985) argue that as material and symbolic conditions are experienced through language, individuals can only think and speak by first accepting the rules and codes of the language system. This to me demonstrates the value of narratives in gaining analytical purchase on environmental values, in that it suggests language is one of the key ways through which meanings and values associated with landscapes are expressed. Nevertheless, given the case I built in the previous chapter for embodiment and also Holland and Ramazanoglu’s (1994) view that a key challenge for qualitative research is to get at what is left unsaid, I would contend that studying language is an important part – but not the only part – of understanding environmental values. If the overall aim of my work is to understand how environmental values are formed and negotiated between different stakeholders, then it is maybe vital to pay attention to both the language used to express these values *and* the things that are left unsaid and perhaps expressed through action. This has the additional advantage of helping to address Kanzaki’s (2010) view that in environmental deliberation, there is often a gap between what people say and what they actually do, for I will be developing a research design that takes into account both language expressed through narrative and the unsaid things perhaps expressed through action.

More broadly, Kendall and Murray (2005) point to a ‘narrative turn’ in the social sciences, whereby attention is focused on storytelling as a universal activity with the acknowledgement that events are rarely viewed as isolated episodes in a whole life story. Gilligan (1982) similarly believes that rather than viewing dilemmas as some

kind of mathematical problem involving humans, it may instead be possible to view them as a narrative of relationships that extends over time. Even though the fundamental aim of my research is shaping an ethic of respect towards the natural environment, Gilligan's thoughts on relationships with other humans are particularly important for my work as a number of diverging world views may have to be negotiated if consensus on practical action is to be achieved.

In other words, it might be helpful to view environmental debates not as isolated episodes, but rather as a part of the ongoing narrative of stakeholders' relationships with each other and with the environment. This idea of relationships with other people, and indeed with the environment, progressing over time sits well with the concept of a narrative trajectory of place in that it also acknowledges the situated nature of environmental values. Thinking ahead to the faithful representation of stakeholders' accounts, it is also useful to note here that Gilligan's overarching aim in conceiving of problems in terms of relationships is to allow participants to speak on something as close to their own terms as is possible. A careful and considerate use of narrative could thus go some way to following Ingold's (2009) standard that whilst we invariably represent things in a certain way, we still have a basic obligation to our participants in terms of how we represent their accounts and actions.

The emphasis in much of the narrative literature on broader life contexts also serves a useful purpose in helping to understand how ideas of ecological identity and ecological citizenship may work in practice. As mentioned above, Kendall and Murray's (2005) belief that events are rarely viewed as isolated episodes in a whole life story parallels Light's (2000) idea of ecological identities working best in conjunction with the other identities an individual may hold. In the literature review section on environmental philosophy and deliberation I raised the issue of the difficulty of identifying which identities a participant may be speaking through and how these may relate to ecological identity work. By encouraging subjects to discuss not only their narratives of direct environmental experience but also their more general life histories, it may however be possible to move towards recognising the

other identities that participants perform their ecological identities in conjunction with. Working with narratives of life history and environmental experience, then, could be a starting point for thinking through the challenging issue of multiple identities.

As far as affecting tangible, practical change goes, the contextualized nature of narrative makes it an attractive interpretative and analytical framework for what I am trying to do. The question remains, however, of how one can work through a situation where different narratives are so different that, as Pellizzoni (2003) might put it, an intractable conflict exists? Holland and O'Neill (2003) suggest recourse to debate and deliberation as a means of working past conflicting narratives of place, conceding that only someone with a detailed and nuanced knowledge of the narratives that had gone before would be able to weigh up these different stories. As Rawles (1995) suggests, though, the job of the environmental philosopher is not to grant every viewpoint equal credibility, rather it is to assess the relative strengths and weaknesses of each standpoint.

A practical and pertinent example of what I am getting at here could be the resolution of conflict between quad bike riders and other users of rural recreational space in North Lanarkshire. As well as being illegal, the riding of quad bikes by youths in community forests and parks intimidated others who had been using the forest for a long time. A workable outcome was reached by finding what the riders valued about riding in the forest, then developing a training space that fulfilled these values away from the community forests. Furthermore, this training space was landscaped into a spoil heap from an old coal mine that had fallen into disuse (www.nlsqbc.com, accessed 14/2/2011). Although this example is perhaps grounded more in issues of legality and use value than environmental value, it nonetheless illustrates the idea of deliberation as a way to progress from conflicting narratives of place and place value.

It is also important to briefly acknowledge some criticisms that have been made of narrative as an interpretive and analytical tool. Atkinson (1997) argues that narrative

tends to focus on private and privileged experience to the detriment of accounts of shared culture, and also puts forward that as *all* phenomena are arguably the product of experience and rendered meaningful via interpretation, narrative is not necessarily a privileged account. In response to this, I would contest that the idea of a narrative trajectory of place does allow space for shared culture alongside personal, private accounts. Furthermore, it is important to register that I remain open to the possibility of narratives taking a number of different forms, and by adopting a more general definition of what is admissible as a narrative account rather than the strict guidelines laid down by Labov and Waletzky (1967), for instance, the problem of defining a narrative account becomes less significant.

More practically, Debanné and Keil (2004:210) warn of the dangers of over-sentimentalising ‘localised’ narratives, arguing that “the narratives we construct of the world in which we live, the storylines and explanations, are not local in any geographically restrictive sense but reflect and produce the multiscale reality of the events they deal with”. A key challenge when I am interpreting and analysing narrative accounts of specific environments will therefore be to consider how these accounts may be influenced by broader contexts and processes. In turn, it will be important to think through whether the environmental values that seem to arise out of these accounts are really the product of a strong attachment to a particular place, or if they are the product of much larger narratives of motor sports in the natural environment.

4.1.4 Research techniques

I have discussed the methodological challenges that my research design needs to rise to and some of the explanatory frameworks that might help it to do this at some length. In Section 4.3 I will go into considerable detail on the practicalities of doing fieldwork, so this section is intended to act as a bridge between questions of methodology and questions of method. That is, what techniques – and what precisely about those techniques – will help me to answer the questions I have set for myself?

Taking all of the issues in Section 4.1.2 on board, I used a triad of research ‘areas’ through which to explore the issue of environmental responsibility and motor sport. Namely, ethnography and participant observation; in-depth interviewing; and participatory appraisal. This was supported by the reading and brief analysis of documentary sources as and when necessary to provide contextual or explanatory information, for example Forestry Commission management manuals, official websites for forest user groups, or publications from the MSA on the nature and status of motor sport. I would like to stress, however, that document analysis did not form a central part of my research design and as such its role in the research process shall be limited to one of providing brief contextual information or explanation.

First was ethnography and participant observation, or, how the environment is experienced at the scale of the body by different participants. The motivation for doing this kind of work came from Silverman’s (1998) idea that the apparent ‘answers’ to ‘big’ questions may turn out to depend on mundane skills that are used in everyday life and remain unexplored as they are not seen as being ‘big’ problems. Sheller (2004:224) believes that “(b)y taking seriously how people feel *about* and *in* cars...we will be in a better position to re-evaluate the ethical dimensions of car consumption” and Dery (2006) reminds the reader, through the example of the dangers of car accidents, that there is a very real and material aspect to automobility. It thus became clear that having some idea of how cars (and other forms of mobility through the natural environment) are used in practice can contribute much to understandings of what is valuable in automobility in a natural setting. By the ‘use’ of cars, I chose not only to observe how cars were driven at speed by the people inside them, but also how the cars were looked after by the crew or their mechanics when they were not racing, and how the cars were talked about during conversations. Similarly, the aim of observing non-participants was to look for commonality with motor sport participants that may be used as a basis for the deliberation process, and also to consider how motor sport activities may negatively impact on the behaviour of other land users (for instance, restriction of access). In practice, this again meant paying close attention to the technology different stakeholders – for instance, field archers with carbon-fibre bows, dog sledders with aluminium sleds - used in their

engagement in the landscape, looking at the sensuous aspects of their practice (such as loud noises, physical damage to the natural environment and even bad smells) and considering how this might shape values conflict going beyond the most apparent issues of access conflict.

Second were in-depth interviews. The aim of interviewing as well as conducting ethnographic research was to discuss in more depth the ecological identities the participants may have held and to evaluate how these ecological (and other) identities influenced practical action. For instance, participants were asked about how they interacted with the natural environment on a daily basis, how (if at all) thinking on environmental issues informed their work, how they thought about environmental issues in other areas of their lives, and if they choose to undertake recreation in nature in their free time. The idea was to allow the participants to reflect on their practice away from the immediate pressures of the field, giving more opportunities for explanation and exploration without completely ignoring the value of embodied experience in shaping environmental values.

Indeed, the overall aims of my research design meant that reflection on experiences and opportunities to ask subjects for explanations of action were a useful ally to the observation work. A good parallel for my research was Rod Watson and his work on driving in nature by forest staff. Watson (1999) concentrated on filming the actual, original experience of driving in a forest in his research, however he still took advantage of interviews with drivers to seek clarification of actions when he felt it necessary. Given Light's (2000) thoughts on multiple identities at work at once, the opportunity to discover more about participants' various identities gave some useful additional explanation for their actions and strengthened the links I was attempting to elucidate between ecological identity and action. In 'the field', this manifested itself in various ways, good examples being deer stalker Brian⁵, whose fascination with animal behaviour stemmed from a PhD in biology, or retired stockbroker Donald, who started rally driving at weekends as an escape from the pressures of his job. The

⁵ A discussion of sampling and ethics follows in Section 4.3, so for now it is sufficient to say that all participant names referred to in this study are pseudonyms.

challenge was one of thinking through how these different identities could shape different ways of discussing and evaluating environmental issues.

Third, two small-scale participatory action research projects were carried out with different Scottish rally driving organisations – one event and one championship. My motivation for developing these participatory appraisal projects came from a curiosity about what the deliberation process can contribute to environmental philosophy in practice. Coupled to this was a desire to explore how the fascinating empirical studies I had read about could be redeployed with groups perhaps not so readily engaged with environmental issues. For instance, Varner et al's (1996) work with farmers in Texas and Hayes-Conroy and Vanderbeck's (2005) ecological identity discussions with college students arguably involve stakeholders already predisposed towards environmentalist thinking, and I was keen to see how their ideas might transfer to the realm of motorised recreation where there could be greater cynicism, scepticism or outright hostility.

By working with one day-long event promoted and planned for four months beforehand, and one championship running from March to November, it was possible to evaluate different environmental strategies and actions by virtue of the different spatial and temporal scales of a localised, day-long rally and a multi-site year-long championship. The championship chose to concentrate on an ongoing programme of carbon emission offsetting and increasing competitor awareness of environmental issues through the displaying of posters, circulating emails round the competitor mailing list and hosting feature-length articles on the championship website. The single event focussed on demystifying rallying within the local community, holding exhibitions of cars, question-and-answer sessions and running campaigns in the local media. The single event also worked closely with the local authority in which the rally was taking place in order to increase awareness and minimise conflict. The participatory appraisal sessions came as part of general meetings held by the rally organisers, meaning everyone was present and able to discuss environmental issues and possible courses and practical action. For both the event and the championship, a willingness to discuss environmental issues in more

depth had already been expressed, which meant stakeholders were more willing to participate. My role in the process was to facilitate discussion, provide clarification of technical or academic issues if requested and make written notes on progress made. Informal conversations around the meetings were also noted.

I had not originally intended to place so much emphasis on participatory appraisal, however it was suggested to me during informal discussions with some motor sport officials on the subject of my upcoming research that I may wish to work with two different organisations. Recruitment for the participatory appraisal phase therefore took the form of voluntary self-selection! Given the study's grounding in ideas of environmental pragmatism and the debates on the social contribution of environmental philosophy, the participatory action projects aimed not only to evaluate how ideas discussed in the environmental philosophy literature played out in practice, but also to consider how non-academic knowledges can show challenges for the application of existing academic ideas in 'real world' environmental deliberations. Following Burgess et al (1998) and Burgess et al (2007), I also came to realise that looking at the ways environmental issues were discussed in a group setting gave further critical insight into how environmental values are shaped and formed than would have been gained from one-on-one in-depth interviews alone. Furthermore, I was keen to build on Gross (2007) and pay attention to the *process* of environmental deliberation and its role in shaping perceptions of fairness.

In doing all of this I was also careful to try to allow participants' understandings of the environment to speak on their own terms without privileging academic or 'scientific' understandings – what I will do now is explain how I tried to do this in the analysis of my data.

4.1.5 Thorough data analysis

It is important to explain why I have chosen to conduct the analysis in the way I have, particularly when a whole range of techniques of narrative analysis are open to me. I have elected to work with a voice-centered relational approach to narrative

analysis, of the kind developed by Gilligan et al (2003), Mauthner and Doucet (1998) and Anna Fairtlough (2007) among others. The key facet of this approach is that it makes my own responses to the text an explicit and crucial part of the analysis, allowing for a more detailed and text-specific analysis alongside this. The importance of making my standpoint explicit in this way is discussed in more detail in the Section 4.2, but before getting stuck into the analysis I would like to spend just a little time thinking about what the Gilligan approach can offer me that two other techniques – namely, Prior’s (2004) triad of content, production and use, and Gee’s (1991) linguistic approach to narrative – perhaps cannot. I would like to stress, however, that I am evaluating Prior and Gee’s approaches solely in relation to their value for my research – this is in no way intended to be a criticism of their techniques for narrative analysis. The key facets of these three approaches are detailed in Figure 4.1.

In order to give a brief yet thorough justification of how I intend to analyse the various accounts in my research rigorously, I turn to Antaki et al’s (2003) list of six common analytic shortcomings in discourse analysis. Each of these will be examined in turn, where I will explain how I intend to avoid the shortcomings Antaki et al identify. Whilst doing this I will pay particular attention to how the method of narrative analysis I am opting to work with can help to avoid the various issues raised in Antaki et al’s paper. It is important to register here that Antaki et al make their points with explicit reference to drawing inferences from conversation analysis and discourse analysis data, however I believe the shortcomings they identify go right to the heart of qualitative research and are considerations all qualitative researchers should take into account.

Table 4.1 – summary of three techniques of narrative analysis

Author	Technique	Basic principle
Gee (1991)	Linguistic approach to narrative	<p>Look at five levels of structure in narrative text and consider what they contribute to interpretation. That is, by analysing certain linguistic features of the narrative, broader influences about the speaker's world view may be drawn. These levels are:</p> <ol style="list-style-type: none"> 1. Line and stanza structure (ideas and perspectives on characters, events etc); 2. Syntax and grammar (logic and connections); 3. Main line/non-main line (plot); 4. Psychological subjects (point of view); 5. Focusing system (images and themes).
<p>Prior (2003, 2004)</p> <p>(also parallels Rose (2001) on visual methodologies)</p>	Triad of content, production and use	<p>The contexts in which a document is produced are just as important as the words on the page themselves. This approach invites the analyst to think about:</p> <ul style="list-style-type: none"> -what is actually in the document or text (content); -who produced the text, how did their views shape the nature of the text and so on (production); -who the text is intended for, what kind of action it is intended to shape, who may be excluded (use).
<p>Gilligan et al (2003), Mauthner and Doucet (1998), Fairtlough (2007)</p>	Voice-centred relational method	<p>Break the text down into four readings for different aspects of analysis and interpretation, thereby allowing the analyst to begin to separate out the different voices in the text:</p> <ol style="list-style-type: none"> 1. Plot and evaluator responses (what happens, what does the analyst personally feel when reading?); 2. Voice of the 'I' (how does the speaker refer to him/herself?); 3. Relationships to others (how does the speaker situate him/herself in relation to others); 4. Links to broader social themes (how does the speaker talk about the wider contexts within which their talk may be situated?)

4.1.5.1 Under-Analysis Through Summary

The first concern Antaki et al raise is that of under-analysis through summary. That is, by summarising what respondents say and presenting this in prose summary form, the precise details of what the respondents say will be lost, as will any contradictions or apparent inconsistencies in their accounts. (Indeed, in attempting to summarise Antaki et al's argument here I may well have distorted their original argument or at least lost some of the fine detail)!

I would, however, argue that it is impossible to present data analysis without including some form of summary, short of presenting every transcript to the reader in full. When trying to sketch out a broad overview of the research field in one's head, then surely some brief overview of what is contained in each transcript is required, even if only to remind the researcher of what each transcript contains for the purposes of data storage and management. As I see it, the danger Antaki et al are alluding to arises when one tries to base analysis solely on the content of summaries produced for data handling purposes. In other words, one must remember that whilst summarising data is perhaps necessary, it is not an analytical tool.

The way the voice-centered relational approach can help here is by encouraging the reader to read first of all for plot and evaluator responses to the text, that is, reading and noting one's own responses as well as the basic plot features. That is, one reading of the text can be used as a frame to remind the analyst of what exactly is in the transcript, with subsequent readings getting down to the analysis itself. In addition to this, when producing an overview of each transcript I am careful to note briefly any inconsistencies or apparent incoherencies that may run against the general flow of the transcript.

On the other hand, Prior's (2004) triad of content, production and use encourages the reader to pay particular attention to how a document is produced, who it is produced by and how the production process was socially organised. In doing this, though, I would be a little concerned of falling into the trap of over-summarising the content of

the text itself by affording almost too much attention to the wider contexts of the document. Similarly, although Gee (1991) takes great care to lay out his view that documents should not be analysed in isolation from their wider contexts, his strict definition of what narrative is and how it can be structured gives little indication of how to analyse non-narrative sections of text (whatever these may be). In Gee's approach, then, I believe there is the risk of under-analysis through summary in that it seems to privilege only narrative sections of text with little time devoted to other text features that, whilst not central to plot, may nonetheless be important.

4.1.5.2 Under-Analysis Through Taking Sides

The second of Antaki et al's concerns is that of under-analysis through taking sides. What I understand them to mean here is that during the course of analysis, the reader may take sides with the respondents, showing sympathy or scorn and commenting accordingly. This, Antaki et al believe, is not *doing* analysis, and can lead to respondents' views becoming distorted, flattened or over-simplified as the reader seeks to marshal evidence for their standpoint.

This is something that is of great concern to me, given the close relationship I have to some of the research participants and also my own situation as a former motor sport participant and enthusiast (something I will discuss in more detail in section 4.2). The danger here is not only that I may inadvertently sympathise with the accounts of motor sport participants, but also that in a well-meaning attempt to avoid this bias I go too far the other way and am overly critical of motor sport participants' accounts of driving through nature.

There are two ways I aim to address this. Firstly, I approach the case study without any clear-cut ideas of how motor sport communities can respond to environmental challenges, and with an equally limited knowledge of what exactly non-participants may find ethically objectionable about motorised recreation. In other words, I have tried to set up a research design whereby I do not seek to either defend or criticise motor sport, and where I allow participants to speak on something approximating

their own terms without trying to marshal evidence for my own ideas about what kind of conclusions I might hope to reach.

Secondly, reading for the voice of the 'I' in the way the voice-centered relational method requires allows the conjectures of the respondent to stand on their own. This method of analysis lets the voice of the 'I' stand alone without the researcher's obvious mediation or interpretation. I am not trying to claim that this makes my work more 'objective' or 'neutral', only that the analysis I draw and subsequent arguments I make are based more on a systematic understanding of what the participants actually say than on the utterances towards which I am most sympathetic or scornful.

By contrast, neither Gee nor Prior appears to offer much in the way of conditions for the positionality of the researcher in this interpretative process. Although Gee's careful breaking down of the text seems to go some way towards the systematic process for which Platt (1981a) calls, his reliance on "responsible listeners" (Gee, 1991:23) seems to tend towards the "judgement and common sense" that Platt (1981b:64) argues document analysis must move beyond in order to ensure replicability. In a similar vein, Prior (2004) places much emphasis on the identity the text conditions in the reader without, as Mauthner and Doucet (1998) have suggested, acknowledging the *researcher's* response to the text. In other words, neither the Gee nor Prior approaches clearly acknowledge the personal biography of the researcher that Riessman (1993) sees as an inevitable part of narrative interpretation.

4.1.5.3 Under-Analysis Through Over-Quotation or Isolated Quotation

Antaki et al's third criticism is under-analysis through over-quotation or isolated quotation. What I take them to mean here is the fallacy of analysis based on quotes taken in isolation from their contexts, or a series of quotes pieced together without appropriate analysis from the researcher. The danger here is that quotes are taken out of context, or that by merely presenting quotes the researcher is again not *doing* analysis.

My response to this is to take particular care when using quotes, looking both inwards to the content of the extracts under analysis and outwards to the context within which the quotes are situated. By doing this, I aim to avoid the pitfall of merely leaving quotes to stand alone by actually getting under what is in the extract – what the respondents say, how they say it, what is left unsaid. At the same time, I make an effort not to lose sight of the context in which the utterance under analysis is made, whether it is something unprompted, the response to a question I ask or a tangent prompted by another point the respondent makes. Making this explicit in my analysis often takes the form of explaining how the presented extract arose, how it fitted in to previous discussion and what prompted the respondent to raise the subject. As well as giving the reader contextual information helpful for them to form their own interpretations of the extract, this also seems to act as a check to ensure the analysis I have made squares with the context in which the extract sits.

As to how the voice-centered relational method ‘helps’ here, I would suggest it combines elements of both Prior’s (2004) and Gee’s (1991) approaches. Readings for the voice of the ‘I’ and for relationships to other humans parallels the kind of text-immanent analysis that Gee advocates, but readings for relations to broader themes helps to situate the extract in question in relation to the rest of their transcript and its broader contexts in the way Prior sees as important.

4.1.5.4 The Circular Discovery of (a) Discourses and (b) Mental Constructs

The circular discovery of discourses and mental constructs is the fourth analytic shortcoming identified by Antaki et al. What they seem to be getting at here is that having identified themes, discourses or mental constructs from respondents’ accounts, researchers may inadvertently re-apply these themes to the text and cite them as reasons for the respondents speaking in the way they do. In other words, utterances are explained only in terms of the themes the researcher identifies.

This is a major concern for me with my research, particularly given the open-ended research design that intends to avoid approaching the topic with too many pre-conceived ideas about what environmental issues may mean in a motor sport context. Allowing participants to speak on their own terms and identifying themes that arise out of the voice-centered relational method of analysis gives rise to the potential danger of re-applying these themes to the data and using them as explanatory tools.

My way around this actually goes beyond the scope of the voice-centered relational method, and indeed beyond any particular technique of narrative analysis. Narrative analysis is but one in a number of tools my research design draws on – field notes, ethnography and participatory action work are also drawn on to support the more ‘traditional’ transcription and analysis of interviews and video recordings. By working with a number of methods, and becoming intimately involved with the research topic, the themes drawn from the narrative analysis can be compared to notes and inferences gleaned from a number of other techniques. There is, in short, an additional body of contextual and empirical information to which I can compare the narrative analysis findings and hopefully avoid some of the pitfalls of circular explanation.

4.1.5.5 False Survey

Fifth in Antaki et al’s list is the risk of false survey. That is, the “danger of extrapolating from one’s data to the world at large” (Antaki et al, 2003:25). What they mean here is quite simply the risk of assuming one respondent’s account stands for everyone in the category to which they belong.

Fortunately, the literature underpinning my own work also discourages this kind of false survey. I would therefore contest that, for me at least, avoiding false survey is more a matter of epistemology than of narrative analysis technique. Ecological identity work (see Clayton and Opatow, 2003; Light, 2000) and ecological citizenship (Dobson, 2003; Hayward, 2006) both place great emphasis on the significance of individual contexts and individual life histories in shaping

environmental values and actions. As well as being one of the fallacies Antaki et al identify, then, trying to extrapolate from one individual to a larger scale may well be counterproductive to the overall aims of my research, which seeks to consider how particular individual contexts give rise to certain environmental actions. The role of the voice-centered relational method in all of this can be one of keeping in check the role of the individual, both through reading for the voice of the 'I' and reading for relationships to others, and then thinking through how these may square with broader themes and contexts.

4.1.5.6 Under-Analysis Through Spotting

The final criticism leveled at much qualitative analysis by Antaki et al is that of under-analysis through spotting. What I understand them to mean here is that there is a temptation to read through a transcript and 'spot' particular discursive or conversational features without offering any critical insight into why the respondent may have deployed this feature or what work it does in shaping the nature of their discussion.

In response, I would argue that the kind of narrative analysis I am doing perhaps does not require me to go into the depths of discourse analysis that can encourage this kind of feature spotting. What I mean here is that analysis of respondents' accounts is but one analytical device among many I am using – interview transcripts are for me one among several ways of coming to understand stakeholders' world views and environmental values. Indeed, I would argue that a heavily linguistic approach such as Gee's (1991) that focuses very much on the minutiae of the text perhaps runs contrary to my grounding in environmental pragmatism, as it runs the risk of losing sight of *why* the analysis is important and how it can help to understand why stakeholders continue with practices fundamentally destructive to the environment.

The role of the voice-centered relational approach here, therefore, is one of striking a balance between individual views and actions and their wider contexts. At the same

time, though, I take on Antaki et al's point about feature spotting, and take care in my own analysis to afford careful consideration to why participants say what they do, thinking about what work this does in shaping and expressing their environmental values.

Furthermore, in both the Gee and Prior approaches I see a danger of slipping into 'feature spotting'. Whilst Gee's approach is certainly rigorous and systematic, I would be somewhat concerned that the focus on breaking the text down into stanzas and units – especially for a non-specialist novice researcher such as myself – could become an end in itself and take precedence over analysing what is actually said. Similarly, whilst I do not contest that Prior's triad of content, production and use provides a thorough framework for thinking through the social context of a document, his discussion on how the *narrative* content of a document may affect its consumption and use is limited. By focusing instead on classification in the document and the wider social linkages to classification, I would again contest that approaching a text with Prior's less structured approach runs the risk of merely picking out obvious links to wider themes in the text without thinking through the work that these do.

4.1.5 Careful presentation of data

The importance of taking questions of transcription and presentation seriously is highlighted by Riessman (1993), who argues that different conventions of transcription lead to and support different interpretations and ideological positions, ultimately creating different worlds. Whilst Riessman's point refers strictly to interview narratives, her point about interpretation and ideological positions is still valid for my work. If Riessman's argument is to be believed, the way in which narratives are presented and re-presented to participants could have profound implications for the practical outcomes associated with my research.

With this in mind, I have chosen to transcribe and present data from the various data sources differently, so that each different 'kind' of data is represented in the most

appropriate way. Ethnographic data sourced from video recordings is transcribed and presented according to the Jefferson system of transcription, a thorough system that notes not only what is said, but also the intonations, pauses and gestures (<http://www-staff.lboro.ac.uk/~ssca1/notation.htm>, accessed 22/02/2011). The reason I am using this method for the video data is that working slowly and painstakingly through the details of the recording on a printed page can help features from the recording to come out more clearly (*ibid.*), and could therefore aid me in making sense of the complex ways participants make sense of their embodied experience of the natural environment. In addition, using a commonly accepted method of transcription for video recording makes it easier for others to understand the transcription system I have used and thus engage critically with my data. To separate this ethnographic material out from the other data, it will be presented in *Courier* typeface.

The in-depth interview data, by contrast, will be transcribed verbatim but without noting intonations, pitch changes or other figures of speech. My justification for doing this stems from Kendall and Murray's (2005) view that if the form in which the narrative is presented mis-represents the participant's original account, then the researcher may view the text differently and perhaps draw conclusions based on a mis-representation of the original account. Unlike the ethnographic work, the in-depth interview is a much less 'natural' situation, where I ask participants questions with the purpose of eliciting particular narratives, usually in an indoor setting away from the natural environment we are speaking about. To transcribe the in-depth interviews in a way that is intended for "ordinary interaction" (<http://www-staff.lboro.ac.uk/~ssca1/notation.htm>, accessed 22/02/2011) therefore runs the risk of mis-representing the context of the in-depth interview. In any case, with my rationale for interviewing participants being to get a handle on their life narratives, excessive notation on the text could break up the flow of such narratives, making them harder to follow and analyse.

The discussions from the participatory projects will take the form of field notes collected during, after and between group meetings. Building on Midgley's (1989)

view that academics cannot ‘sneer from the sidelines’ and must situate themselves within debates, it is important to bear in mind that I too am situated within the deliberations and actions of the participatory projects. It is therefore important to make explicit my own views and feelings on the deliberation process, something I feel is best done by following Ingold’s (2009) advice and writing in a straight narrative style. In light of my concerns about not wanting to appear as an environmental ethicist telling rally participants what they ‘ought’ to do to care for the natural environment, by presenting accounts or deliberations over environmental practice in a narrative style it may be possible to work round the difficulties of defining oneself as an environmentalist (Hayes-Conroy and Vanderbeck, 2005) and tackling normative ethical questions (Shapiro and Takacs, 2006) identified elsewhere in the literature. That is, rather than writing up the discussions in the participatory projects as something that took place with me on the outside recording and observing, I feel it is more helpful to make my relationship to the rally organisers explicit. More practically, with many of the deliberations over environmental issues within rallying taking place in informal settings, writing up field notes allows me to capture the discussions that may take place when a tape recorder is not readily available to hand⁶.

In a similar vein, I shall also from time to time draw on my field notes. The reason for this is very similar to my justification for writing up the participatory project discussions; namely, that I too am situated within the research and have my own views, experiences and values with which I approach the topic. Presenting my situation in a narrative style therefore hopefully allows readers to give my role in the research process the same critical scrutiny that they could to the accounts of my participants. What I will do in the next section is explore my situation in the research process in more depth.

This more narrative data will be presented in Times New Roman typeface, except that it will be *italicised*. Extracts from documents used for context and explanation will also be presented in Times New Roman, but will not be italicised.

⁶ The ethical implications of this are discussed in Section 4.3.

4.1.6 Conclusion

Here I have discussed the key methodological challenges my research design needs to address, and I have considered the interpretative frameworks, research techniques and analytical devices that will help me to do this. I reiterated the importance of exploring the relationship between environmental philosophy and practical action; remaining open to the possibility that stakeholders may express environmental values in widely differing and perhaps incompatible terms; taking seriously the scale of the body as a site where environmental understandings and values are shaped and performed; and of balancing the adequate representation of participants' accounts on one hand with the need to present data in a form that can guide practical action on the other.

I then went on to elaborate on the actual research techniques I have chosen, and although I will talk about the practicalities of this in more depth in Section 4.3, I explained how a triad of ethnography, in-depth interviewing and participatory work (supported by document analysis) can help to get under how stakeholders form, negotiate and perform their environmental values. Finally, I discussed the potential of a voice-centered relational mode of narrative analysis in overcoming common analytic shortcomings, and talked about some of the challenges that lie ahead in presenting participants' accounts fully and faithfully in my own work.

4.2 Self, reflexivity and situation

4.2.1 Introduction

As I am deeply involved with the research area, being a former participant in, organiser of and reporter on motor sport, it is important to spend quite a bit of time discussing the implications of my situation for the research design. I start doing this by making my own relationship to the research and to my broader life contexts explicit. I then argue that my close relationship to the research area can – if used

carefully and critically – be a force for good in gaining additional explanatory and analytical purchase, and I suggest the problems I face are far from unique to my research.

I then think through the flip-side of this – namely, the ethical and moral responsibilities I feel towards those I construct the research with. I also take time to think about my own feelings on working on a research topic that spills over into my personal life, reflecting in particular on how I felt about regularly bringing my own knowledges into the research. I then go on to think through how my relationship to the research topic might affect data construction and participation, with the aim of ensuring I can use my situation as a force for good whilst addressing any concerns about validity, transferability and potential bias. Leading in to the practicalities of research that will be discussed in Section 4.3, I finish by talking about the ethical implications of doing this kind of research.

4.2.2 Making clear my own relationship to the research

I come to the research as someone with a deep and long standing love of the automobile. For as long as I can remember I have been fascinated with cars – their design, technology and use have been of great interest to me since my pre-schooling days. In particular, I am extremely interested in many forms of motor sport, and both participated and worked in this area before commencing my studies. Whilst perhaps a little self-indulgent, it is worthwhile spending a little time thinking through how this may affect the way I go about my research design and execution.

The initial idea for my PhD project actually came through an approach to work with an organization in return for help with an undergraduate dissertation. The organization – a Scottish stage rally to which I still retain strong links – was keen to ‘do something for the environment’ and had the idea to enlist students to help work through this as a potential dissertation project. Although that project was extremely short-term and ended up being very limited in scope (around eighty trees were planted in an attempt to offset the carbon emissions of competing cars), it

nonetheless set me thinking about the relationship between motorised recreation and the natural environment, in particular the ways in which an activity so obviously and fundamentally destructive to the environment could continue to be justified.

In particular, carrying out preliminary work in this area at undergraduate and then at Masters level led me to think more about my own standpoints and relationship to the research. Despite considering myself reasonably well versed in the various literatures of environmental ethics and the basic science behind climatic change, my interest in cars independent of my research remained strong. It was this – coupled with the reading of Sheller’s (2004) work on automotive emotions – that brought me to thinking how difficult it is for car enthusiasts to give up their vehicles, and thus the importance of understanding what exactly about such forms of automobility it is that is valued if more sustainable forms of mobility are to emerge.

The reason I mention this is that it brings to the fore issues of proximity to the research and research participants, questions of observation and participation, and potential problems of validity and bias – not to speak of the range of ethical issues associated with all of this. In subsequent sections of this paper I shall speak to each of these themes in turn.

4.2.3 Proximity and research

I come to the research process, then, with my own views, relationships to research subjects and ways of understanding processes. If reflected on frequently and critically, this perspective could be a useful tool for what I am attempting to achieve. Doucet and Mauthner (1998:2) hold that “understanding and knowledge come from being involved in a relationship with our subject matter and respondents, and not through adopting a detached and objective stance”. It can therefore strongly be argued that my position at this time within the groups I am researching can offer some analytical purchase otherwise not as readily available to the researcher. For instance, relating to ecological identity work and the challenge of trying to understand and/or explain embodied actions, my own situation within the community

can help to get under Lynch's (2008) idea of a number of different ways of thinking about the world existing simultaneously in ways that may not necessarily be commensurable with one another. That is, whilst some of the actions and behaviours I view may not be explainable through a particular type of academic discourse on environment and behaviour, they may seem to make sense within a motor sport context. This could allow me to move beyond Allen's (2005) assertion that some things 'just happen' and cannot be explained through existing epistemological frameworks, and may be a means of getting round Dobson's (2003) admission that in his ecological citizenship model, he is at a loss to explain why citizens would want to see ecological justice done. If a different way of understanding and discussing the natural environment can be articulated in the case of motor sport, then it may give rise to an alternative framework of values and identities through which the justice in ecological citizenship may be carried out.

In the above, my claim is that proximity to research participants may – as Doucet and Mauthner (1998) seem to be claiming – help to contextualise some of the apparent contradictions and inconsistencies in participants' accounts and behaviours. Given my theoretical focus on an understanding of ecological identity work and environmental philosophy as a basis for successful deliberation and sustained environmentally responsible action, I feel it is important to explore this potential for different ways of valuing the natural environment and expressing this value, and my proximity to the research subjects may be one way of working towards this. Nonetheless, it is important to register that Ingold (2009) believes all understandings are produced through relationships to subjects, so whilst the close relationship I have with the participants involved in my research could help to enhance the understanding I can develop, I am possibly by no means privileged among researchers more broadly in enjoying this kind of relationship. Conversely, however, this also means that the problems I face as a result of being so deeply embedded in the research – as I will discuss later - are perhaps not problems unique to me alone.

Keeping in mind the broader ideas and literatures motivating my study, however, it is important to consider the relationship between responsibility and proximity in my

fieldwork. I discussed ethics, care and moral responsibility in a theoretical context in Section 3.2, so it would be doing my research something of a disservice if I did not think even a little about the responsibilities I as a researcher have as a result of my relationships to the research participants. In writing up my field notes and producing my analysis, I am with Froggett (2009) and Ingold (2009) in believing researchers have a basic responsibility to represent the lives of their participants as fully and as accurately as possible. By drawing on the thoughts of Mulkay (1991), Pinch and Pinch (1988) and Woolgar (1988) in considering different literary forms as ways of writing research, I hope to address Froggett's idea by remaining open to the possibility that different literary forms may be required at different times in order to represent the lives of participants as faithfully as possible, particularly when these forms help to make my own interpretations and conjectures visible to the reader. This does not mean I will be presenting my findings with the use of a second voice or some of the more extreme and thought-provoking techniques Woolgar and Ashmore (1988) discuss, simply that different types of data will be drawn on at different points of the analysis depending on what best illustrates the point I am trying to make. In other words, I shall not be explicitly separating out each of the different strands of data, and indeed will include my field notes as and when appropriate.

Responsibility also entails presenting my findings and conclusions to those involved with my research in a format accessible and usable to them. With my relationship to those involved in the research extending well beyond the timescale of my study, I personally feel a responsibility to be able to present something 'tangible' to motor sport participants as an 'outcome' of my research, and as such made a point of frequently asking – both during in-depth interviews and informal conversations – what others see the contribution of academia and research to their lives as. Interestingly, the responses I have received to this question have been extremely mixed, ranging from very specific answers about technologies to reduce emissions to more general responses on the role of thinking and creativity in society. In this regard, my non-academic identities do have a part to play in keeping participants involved with the findings and conclusions of the research, as well as the presentation and contribution of my work more broadly, in that I will be coming into

contact with participants long after the research has finished and will therefore have chances to feed back findings to them in a manner and at a time that they feel is appropriate.

Finally, and related to the above, is the blurring of the boundary between the research and other areas of my life. Particularly as I am very much embedded within the Scottish motor sport community and have a keen interest in environmental issues in this context away from my research, it is not always easy to see when my activities stop being research and start being part of regular life. The ethical implications of this with regard to consent are discussed in the ‘ethics’ sub-section of this chapter, however here I am more interested in the effects this could have on the way I view and respond to situations outwith the field. An interesting parallel for me here is Simon Holdaway’s early work on the British police force, conducted while he was still a serving police officer. Holdaway (1982) recounts a burglary at his home during the period he was carrying out his research, admitting he went ‘completely native’ and started to examine the scene as if he was a police officer on duty rather than acting as if his own home had been burgled and his possessions taken. The point I am attempting to make here is that potential effects on validity and bias aside, working in close proximity to the research area can have emotional impacts on the researcher that should be kept in mind at the research design stage and regularly reflected on thereafter.

4.2.4 Taking a step back – on writing the introductory overview and the glossary

The ability I have to write extensively on the subject of rally driving is the result of a sustained and deep engagement with the research, to the extent that the practices normally enshrined in rulebooks and texts have become part of my consciousness so much that I need no longer look them up before referring to them. It is for precisely this reason that opening this embodied knowledge up to critical scrutiny is a key step in making visible the silences and the taken-for-granted that may come about if I let my relationship to the field go unchecked. When I started to work through a draft

analysis of the interaction between the rally driver and his or her navigator (see Section 5.2), I suddenly became aware of the number of specialised or potentially unclear terms that arose in the video transcripts. Conversations with colleagues suggested that without knowledge of what these terms mean, it may be difficult for readers to understand what precisely is going on in these transcripts, which in turn could make it hard to critically intervene in such an analysis. I am a little concerned that the production of a glossary could appear patronising to the reader and make me appear to be an ‘insider’ with privileged knowledge that allows me to analyse the data ‘correctly’, however I feel that producing a glossary is justified if it provides the additional context necessary to allow readers to critically intervene in my work and challenge or refute my arguments.

Writing both the glossary and the introductory section proved to be an interesting and useful exercise in making me think through my relationship to the topic under study. Particularly when drafting the overview of what rallying *is*, I was stunned to notice I was able to produce several thousand words on the rules, regulations and processes of British rally driving without once having to consult a rulebook or look something up on the internet. This stirred up feelings similar to those Platt (1981b) experienced when she found herself asking a colleague questions in a research interview, despite both her and her colleague knowing full well that the colleague would normally come to Platt to find the answers to the questions she was asking! It made me think back to the question of ‘what happens if you just know something’ that so frustrated me when I tutored first-year undergraduates (“You don’t ‘just know something’, it always comes from somewhere, look it up and cite where you looked it up,” I would tell them in a half-truth, delaying the deeper issues until they took Philosophy and Methodology courses in their honours years) and led me to consider more broadly the questions of embodied knowledge that came up in the literature.

Following on from this is a clear response to Midgley’s (1989) reminder that we as researchers must situate ourselves in debates and cannot sneer from the sidelines. That is, whilst I am very interested in how multiple identities work in shaping environmental values in complex ways, I must not forget that I too possess multiple

identities as a motor sport enthusiast, former journalist and low-level motor sport participant as well as being a researcher. This comes through very clearly in the fact that I not only have the knowledges required to produce a guide on what rally driving is without having to consult reference guides, but also in my former work as a journalist might have been the kind of person expected to produce just such a guide for a different audience. What I am getting at here is that in much the same way as, say, Malcolm, a facilitator for stargazing events who I interviewed as part of the research for this project⁷, carried out his current job with traces of things he had learned in his training as an environmental interpreter, so my previous work as a journalist may shape the way I explain rally driving to my colleagues and peers. Although this has potential advantages in terms of communicating my research to broader publics and having a knowledge of what could make my research and ideas engaging to rally participants, there is a need to think through carefully how this slippage between being a researcher and being a journalist may shape the way I present my ideas and views.

My position and relationship to the topic aside, there is value for the research more broadly in taking a step back and thinking through the specialised terms found in rally driving. Shanahan et al (1999) and Satterfield (2001) both believe that the use of narrative techniques, for instance getting participants to describe natural landscapes or read narratives of such landscapes, allows a broad sense of values to be elicited. Thankfully, the nature of rally driving, where one crew member reads out a narrative description of the landscape as the driver controls the vehicle, means that such data already exists within the video transcripts I have. By unpacking what the various terms used in the rally driving description of the landscape mean, then, it is possible to gain some additional analytical purchase on the kinds of values associated with the landscapes within which this kind of recreation takes place.

⁷ I discuss who I interviewed in more detail in Section 4.3. I include reference to Malcolm here mainly as it helps to illustrate the point that I am trying to make and that I am subject to the same issues and challenges as many of the participants in my research.

Thinking carefully about the specialist terms used in rallying can also help the researcher to understand what the participants ‘see’. Although I am keen to think about the multisensual experience of the environment and not only sight, I am with Amann and Knorr-Cetina (1988) in believing talk attached to visual materials can provide potential formulations of what participants ‘see’ – and from the work I have done I believe it is possible to extend this to say that paying attention to talk can help the researcher to get under what participants sense more generally. Explaining and unpacking the range of terms used in rallying circles therefore has value in getting a handle on how precisely the natural environment is experienced by rally participants.

Finally, developing a glossary of rally terms based on information gleaned during participant observation has some advantage in enhancing the validity and rigour of the research. Stanley (1992) argues that without textual information on how to read an image, people are strained towards a certain reading based on their own knowledge. Having a glossary of terms to help me – and other readers – understand what is being spoken about in the situations I am analysing could therefore ensure that I evaluate participants’ talk in terms of what *they* believe they are referring to when they use a certain term and not what *I* think they mean when they use a particular word or phrase. Ethically, providing such a glossary can also work towards Ingold’s (2009) view that there is a basic ethical responsibility for the researcher to represent the lives of those being researched accurately and faithfully, in that it can help to clarify otherwise opaque terms for a non-specialist readership.

Having said that, it is vital to remember that the glossary, whilst informed by the explanations of others, is something I myself have compiled and thus reflects my own knowledges, values and aims (Prior, 2004). The production of a glossary therefore does not completely avoid a reception of the transcripts that is related to my own knowledge, and this is something I wish to acknowledge. Again, though, I do not wish to be over-apologetic for my relationship to the research, and at this juncture it is worth briefly going beyond the writing of the glossary and reiterating how exactly I can see the knowledges I bring to the research area acting as a force for good.

Linking back to the overarching themes of my work and the challenge of imagining more sustainable futures for recreational mobility is Haggett's (2009) challenge of reaching appropriate outcomes for each locality through deliberation. Without coming in with too many of my own ideas about what is an 'appropriate' outcome for motor sport with regard to environmental responsibility, I believe that the embodied and contextualised knowledge can help initially to think about what sort of environmental outcomes may be appropriate for motor sport given the regulatory background. Similarly, the knowledges I as a researcher have of some of the places in which rallying takes place in Scotland can act as a bridge between theory and practice in the early stages of trialling O'Neill, Holland and Light's (2008) narrative trajectory of place. That is, whilst O'Neill, Holland and Light stop short of suggesting what an appropriate narrative trajectory of place might be – leaving that to those who have deliberated carefully over the issue at stake – in the early stages of deliberation over trajectory I may be able to offer ethical clarification on what O'Neill, Holland and Light's concept entails whilst also having the practical knowledge to imagine what this trajectory might actually look like for a place of motor sport and other mobilities.

4.2.5 Observation and participation

Linked to the issues raised above are broader points about the relationship between observation and participation. Ingold (2006) contests that all science depends on observation, and all observation in turn depends on participation. That is, in perception and action there is a close link between the observer and the focus of attention. Although Ingold (2009) believes the blurring of observation and participation is not necessarily a bad thing, I wish to think carefully about the contexts in which I approach data analysis.

In particular, I have concerns about over-interpretation as I come to the data not only with prior academic knowledge about ecological identity work, but also with prior knowledge about motor sport that could affect what I deem as being important when

I look at data or produce field notes. Silverman (1998) sums this up best when alluding to the work of Harvey Sacks, proposing that when beginning analysis of a conversation, there should be no reason to suppose that what the researcher is dealing with is anything more than interaction between two persons. This contrasts strongly with Prior (2004), who is of the opinion that in analysis of any texts, the wider contexts, conventions and assumptions are equally important as the words in the text itself, if not in fact more so, and also poses something of a methodological dilemma for me. That is, if ecological identities – and thus human actions towards the natural environment - can best be understood by considering them in relation to any number of other identities the individual may hold (Light, 2000), then how can this broader context be taken into account in the manner Prior suggests without bringing pre-existing assumptions to the text in the way Silverman and Sacks warn against? Bringing this directly into the realm of environmental deliberation and environmental pragmatism, Sagoff (1992) equally warns of the dangers of assuming polarised positions in environmental deliberation and ruling out alternative ways of evaluating the situation in hand.

According to Fairtlough (2007), however, this problem of imposing the researcher's own theoretical ideas is arguably a problem that affects *all* social research, not merely work such as my own where I already have a certain way of thinking about the research subjects due to my proximity. To a certain extent, Allen (2005) offers a useful way to think about this problem which is to remain open to the possibility that not all actions can be explained within existing theoretical frameworks and that the silences – what participants are unable to explain – may be equally as revealing. It is important to register, however, that I would not go as far as Allen to say that some actions 'just happen.' Instead, what I would contest here is that there is a difference between evaluating data solely in light of my own preferred theoretical frameworks and tentatively drawing links between what I observe and the broader theoretical frameworks I am drawn to. That is, there is perhaps a difference between referring strictly to *a priori* theory in the way Weed (2005) sees as unhelpful and looking critically at the values elicited from participants.

This prior knowledge of the research field also means there is a particular kind of observation and participation that arises from the type of relationship I have to the participants in my research, which may have effects on the inferences I make in my analysis. Law and Lynch (1988) talk about pauses in the practice of a novice as a means of gaining analytical purchase and making apparent shared understandings, in that the novice has to pause as he or she encounters a situation where he or she is not part of the shared understanding and must seek explanation. In the case of my research, however, my situation within the research context could mean that shared understandings of this nature are *not* made apparent when a pause occurs, because I am already part of this understanding and as such may not grasp why the novice is having to pause. In other words, what happens when the researcher is *not* a novice in the area they are researching, and if this is the case how can the researcher begin to unpack shared values in order to get a fuller understanding of that particular world view? When one remembers that one of the key premises of my research is getting under what exactly it is about driving at speed for pleasure that makes people want to continue doing it in spite of obvious ethical criticisms, this problem becomes quite significant. It is for this reason that I am particularly interested in new literary forms and incorporating my own field notes and responses into the data analysis as ways of making explicit the fact that the kind of participation and observation I carry out is neither neutral, detached nor objective. By being flexible with the ways in which I present my data analysis, I hope to be able to open up my own accounts to the same kind of critical scrutiny afforded to the accounts of my participants. By treating some of my own accounts in the same way I would treat those of participants, I aim to at least begin to get under the uncritically accepted ways of thinking that are present in my own world view and think through what effects this could have on the conclusions I draw from the research data.

4.2.6 Validity and bias?

The topics discussed in the previous section on observation and participation are very closely linked to issues of validity and bias to the extent that some overlap is inevitable. Nonetheless, in this sub-section I wish to talk more about the practicalities

of working round questions of validity and bias in the field in light of the broader methodological themes discussed previously. What follows is a discussion about the potential effects of my relationship to the research on the data constructed and its analysis, however again I am not trying to apologise for the fact that I am deeply embedded within the context I am researching. Rather, I am merely trying to think through the potential effects that may arise out of this and figure out ways these effects may be minimised, so that my role at this time can be used as a force for good in affording explanatory and analytical purchase.

Methodologically, this is also useful as these may not be issues unique to me. As King (1996:188) puts it, “(t)o recognise that we can adopt multiple roles in our relations with others and that we can operate within contradictions involves becoming deeply involved with research material both during and after collection.” Perhaps the most obvious physical manifestation of these issues is the interview situation. I have multiple roles within Scotland’s motor sport communities, as a former driver, former navigator, event organiser, journalist and now researcher. As such, many of those I interviewed or carried out participatory work with were known to me already. Aside from the practical advantages of access to participants and opportunities for snowball sampling this affords, it raises the question of which of *my* identities motor sport participants are responding to when I speak to them in a research context. This adds an additional layer of complication to Hydén and Bülow’s (2003) assertion that participants may adopt multiple professional and private identities over the course of an interview and answer different questions from different identities, in that participants may choose to speak *to* different identities over the course of the interview. As I discussed in Section 4.2.3 with reference to Platt (1981a; 1981b), relationships between interviewer and interviewee that extend well beyond the interview setting can inform the nature of the interview itself, thereby potentially altering its form and content.

In the context of my own research, however, I feel that the distinction between the nature of the discussions I have with individuals in a journalistic context is sufficiently clear from the nature of the discussions I may have with the same

individuals in a research context. To put it differently, the type of questions I would be likely to ask for the purposes of writing a sports report (how the crew felt the event went for them, any problems they encountered, what their next planned event is) are very different from the questions of environmental experience and ecological identity I want to pursue for my research goals. In any case, regardless of whether participants are speaking to a 'journalist' or a 'researcher', I do believe that many fundamental components of the interpersonal interaction are similar. For instance, in both cases the interviewer is seeking information about the interviewee's life narratives and history, in both cases the interviewer will go away and report the contents of the interview in light of his or her own beliefs and conjectures, and in both cases the professional seeking information has a basic moral and ethical responsibility to represent the lives of others accurately and faithfully. That is, it can be argued that no matter whether one is speaking to a journalist or an academic researcher, the perception of what the person asking the questions is going to do with the information remains more or less the same. Additionally, the amount of work I have taken on as a journalist has decreased greatly over the last few years to allow me to focus on my research, and thus while I can still draw on the contacts gained through work as a journalist, for many my primary identity in the community is now one of being an academic researcher.

Questions about the way participants perceive me aside, concerns over validity when conducting a study of a group of which I am an 'insider' remain. After Holdaway (1982), who faced similar problems of validity and representativeness when conducting research on the British police force while still employed as a police sergeant, I believe reflection away from the immediate pressures of the field is the most effective way to handle issues of multiple researcher identities. By observing a number of different participants in a wide range of contexts and reflecting on his experiences afterwards, Holdaway was able to consider which identity *he* viewed each situation through and recognise situations where his identity as a police sergeant shaped a particular view perhaps different to that of the academic researcher. Whilst Holdaway says little about how his research participants responded to his multiple

identities due to his research being covert, I nonetheless find his points on identity work and reflection to be a useful parallel for me.

In the case of my research, therefore, coming to terms with my own position in the research process is vital. Whilst this situation does offer great advantages in terms of gaining access to participants and offering alternative frameworks for understanding situations, with it comes a certain responsibility to follow Doucet and Mauthner's (1998) suggestion of documenting every detour, shortcut and decision made throughout the research process so that my own role in the research is made visible. This took the form of keeping a regular research diary (see Appendix V), reflecting on experiences in the field and maintaining regular discussions with my research supervisors, so that any issues of dual identity that might have detracted from the validity of the research could be identified at an early stage and acted on. By doing this, it was possible to take advantage of the extra analytical leverage being closely involved with a community under research gives (King, 1996; Doucet and Mauthner, 1998) whilst minimising the risks this poses to the research.

The final point I wish to make under the theme of validity and bias follows on from the points I made in Section 4.2.3 about responsibility to participants. As I have worked in close proximity with the motor sport participants and have relationships with many that extend beyond the scope of the research, there is a potential risk of the way I present my findings being biased to present those known to me in a sympathetic light. Whilst my situation cannot be ignored, I do believe that the research design can be structured so as to ensure the voices and ideas of motor sport communities are not over-privileged and are examined critically. To this end, when I speak of 'responsibility' in the context of motor sport and the environment, I draw on Hamann and Acutt (2003) and Pellizzoni (2003) and extend the idea of responsibility to include other humans within the natural environment as well as the non-human natural environment. By using this conception of environmental responsibility, when I think through responsibility towards the environment for motor sport participants I therefore keep the values, experiences and narratives of other stakeholder groups at the forefront of my mind. That is, in considering what it means to be environmentally

responsible in a motor sport context, I inevitably have to think about the relationships of motor sport communities to other user groups.

4.2.6 Ethics

I will outline the precise nature of the ethical procedures I went through in Section 4.3, but here let me briefly elaborate on broader ethical issues pertinent to my research, for as well as potential impacts on the validity and rigour of the study, the multiple roles I hold have additional ethical implications. I still carry out some low-level public relations work for two Scottish motor sport organisations and several competitors which involves keeping local and national media informed of event results and other relevant news such as environmental schemes. This could give rise to a conflict of interest between my academic goals of critically thinking through the experience of driving for pleasure in a natural environment, however members of all parties are aware of my research, see no conflict of interest arising and have no issue with the fact that I may from time to time be critical of the community's work. Indeed, the research is not covert, and the participatory aspects of the research were actually suggested to me by some motor sport organisers. Furthermore, my supervisors are fully aware of this work outside of university and are satisfied that I have taken appropriate steps to inform and protect participants. In addition, the ethics procedures of my institute are adhered to at all times.

At the same time, however, I am careful to avoid drawing on friendships in an exploitative way. The aims of my research are always made explicit during interviews and informal conversations about my study, and as many of my motor sport acquaintances believe my research is pertinent and related to 'something we'll all have to deal with sooner or later', I am often encouraged to be critical of current practices if the aim is to work towards more sustainable alternatives. In addition, whilst motorised recreation in this context *is* something that people are passionate and emotional about and I *do* have an interest in personal life history narratives in this field, my research does not deal with information of a highly personal and sensitive nature. That is, whilst I am aware that this is for many an emotive issue and

as such I must respect the standpoints of all involved, my research design does not require me to probe participants for extremely personal or sensitive information. At this juncture it is worth noting that as a result of my position within the community I understand the cultural and social norms of the groups I am researching and have taken every step possible to ensure these are not violated, in particular showing sensitivity to the fact that some places might carry additional value or memory due to fatal accidents and realising that the discussion of serious crashes is a taboo unless initiated by a competitor involved.

I believe that providing feedback to participants on the research is not only a key component of the moral responsibility I discussed earlier, but also an integral part of the research design. Working with participants to evaluate what they would consider 'useful research' with regard to the environment and mobility is perhaps an important outcome of my study given my focus on environmental pragmatism and the practical contributions of environmental philosophy. To this end, where possible, in addition to giving participants the chance to view analysis of their input, I also asked them if there was anything I might be able to 'help' them with as regards meeting environmental challenges they faced (I did exercise a certain degree of judgment in doing so to ensure that I would not be providing more vocal participants with 'ammunition' to fuel existing entrenched and hostile debates). To this end, among other things I provided copies of my Masters research for the files of forestry offices, sent photocopies of out-of-print government documents to organisation archivists, and wrote a short summary paper for a rally navigator on the ethical implications of biofuels in rallying.

Having talked about ensuring the research experience is 'valuable' to participants, it is perhaps important not to lose sight of the fact that people may actually be interested in my research for what it is and might enjoy reflecting on their practices out of interest or curiosity. As Crouch (2001) discovered when carrying out ethnographic research with caravanners in the United Kingdom, many participants were genuinely interested to hear about his work and enjoyed listening to and reading about his evaluations of their actions. What I am getting at here is that whilst

the researcher always has a responsibility to carry out ethical research and to carefully consider the ethical implications of any piece of research, it is perhaps easy to lose sight of the idea that research can be done that is non-harmful and that participants are genuinely keen and curious about.

4.2.7 Conclusion

In the preceding discussion, I have given my role at this time within the communities I am researching some thought. I attempted to present my own life history narrative in relation to the research topic in a way that makes my relationship to the research explicit from the outset, hopefully without being too self-indulgent. This led into a discussion about my situation and how it affects the nature of my research design and fieldwork. I argued that as long as reflected on critically and carefully, my situation within the research topic can be a force for good in affording additional explanatory and analytical purchase. Whilst doing this, though, I was also careful to point out that the challenges I face as regards my relationship to the research and participants are far from unique to me.

I discussed the ethical responsibility I feel to my participants at some length, again arguing that whilst the problems I face are far from unique, my relationship to the research serves to magnify these issues. I argued for the importance of documenting my own feelings whilst doing research and making these relationships explicit, again with the aim of allowing the positive aspects of my situation to come to the fore whilst keeping potential implications for validity and bias in check. Lastly, I explored some of the ethical issues that are particular to the kind of work I am doing where the researcher has a close and sustained relationship with the participants. What I will do now is outline the very details and practicalities of how I actually did the research.

4.3 Empirical – putting it into practice

This section deals almost exclusively with the practicalities of ‘doing’ my fieldwork, explaining in some depth how I carried out my research in the field. I explain how

the participant observation, in-depth interviews and participatory appraisal projects took shape, paying particular attention to practical and ethical issues throughout. Although my intention here is to explain what I actually did, a certain level of overlap with my justifications for choosing these methods is inevitable. As far as possible I give specific examples of what I did and who I conducted my research with, however a full inventory of all ethnographic exercises I participated in and/or made recordings of, in-depth interviews I carried out and participatory appraisal work I was involved with can be found in Appendix I.

At this juncture, let me also make a seemingly trivial but still noteworthy point about the logistics of doing my research. The overarching aim of this study is to explore how those passionate and enthusiastic about cars might be able to work towards preserving the elements of car culture that they most strongly value whilst mitigating the more environmentally damaging aspects. With this in mind, I carried out virtually all of the fieldwork for this project on foot, by bicycle or by public transport! Only in a few exceptional circumstances did I share a lift with a research participant to a remote location due to constraints of distance or time.

4.3.1 Ethnography and (Participant) Observation

The ethnographic section of the research involved observing, and where appropriate participating in, the embodied interaction of users of the natural environment with their surroundings and with other humans at these locations. Of course, I am not the first person to carry out ethnographic studies of drivers ‘on the move’, and the work of Eric Laurier among others was a key touchstone in formulating this section of the research. Building on work that attempts to view participants’ practice in a manner that does not - as much as possible - obstruct their normal course of activity (Laurier and Philo, 2003; Laurier, 2004; Laurier et al, 2008), where possible I video recorded participants as they moved within the natural environment, be it by car or by another means. It is also important to register that the papers cited above also helped me to get an initial handle on how to effectively analyse ethnographic video data.

Given my focus on relationships to the landscape and the shaping of environmental values, the work of Rod Watson (1999) also proved helpful in conceptualising an ethnography of people's relationships to the natural surroundings whilst driving. To this end, I sought to observe participants in a manner that showed how they interacted with the landscape and with any other users also involved in the experience. For as many activities as possible, I also participated in the activity either before or after solely as a participant without the burden of recording equipment to carry and operate, so that whenever possible I could be involved in something close to the participants' original embodied experience. If video recording was not possible, I wrote up field notes about the experience soon after, detailing what I did, how I felt, and how it made me feel about the environment I was moving within (see Appendix II).

Following Ingold (2000), the aim of this was to look at the initial embodied interaction of participants with the environment in order to consider how environmental values may be formed in the first instance at individual or small group level. After Law and Lynch (1988), I also intended to use the participation and observation to think about how specific forms of interaction might shape a certain way of sensing the landscape, in particular what this may prioritise and how it may shape particular kinds of environmental value. Both motor sport participants and non-participants were involved at this stage of the data construction.

Within the motor sport framework, a range of drivers and navigators were observed. Namely, professional stage rally crews (drivers and co-drivers who compete in rally driving for a living), experienced amateur crews (crews who are experienced rally competitors and who may be skilled enough to on occasion drive as quickly as professional crews, but who rely on other forms of employment for their income) and novice amateur crews (those who had recently taken up rallying and thus had little or no prior experience). I also joined an experienced navigational rally crew for an evening to get a sense of how this may differ from stage rallying in terms of the environmental experience. Table 4.3.1 gives a full list of rally competitors involved in this stage of data construction, with all names changed to pseudonyms.

Table 4.3.1 – list of rally participants involved in ethnography

Title	People involved	Description
Border Counties Rally 2008	Rory/Patrick	Leading skilled crew pushing on for strong result
Border Counties Rally 2008 - 2	Jordan/Graeme	Another leading skilled crew tackle chicanes
Jim Clark National Rally 2008	Anthony/Luke	Stuck behind a slower car
Jim Clark National Rally 2008 - 2	Anthony/Luke	Frontrunning crew in world-specification car
RSAC Scottish Rally 2009	Danny/Niall	Novice crew on fast and challenging stage
Speyside Stages 2008	Ruaridh/Susie	Young amateur crew learning on forest stage
Granite City Rally 2008	Lee/Scott	Experienced crew deal with technical fault
Scottish Rally (Historic) 2008	Finlay/David	Young crew in historic car contend with dust
Pirelli International 2008	Ryan/Gary	Professional crew developing a new car
Granite City Rally 2008 - 2	Jordan/Graeme	Top Scottish crew on a trouble-free stage
Snowman Rally 2009	Rory/Patrick	Leading skilled crew pushing on for strong result
Scottish Borders Hillrally 2007	Matt/Adam	Different type of rally featuring SUV-type cars
Colin McRae Forest Stages 2009 - Drummond Hill	Lee/Scott	Leading skilled amateur crew fight for championship
Snowman Rally 2009 - 2	Jimmy/Iain	Experienced driver and novice co-driver crash
Jim Clark Reivers 2009	Robbie/Emma	Tarmac specialists on a tarmac rally (including spin)
Speyside Stages 2009	Laurie/Tom	Crash following co-driver error
Navigational rallying	Callum/Leslie	A different kind of rallying - navigational rallying
Navigational rallying - part 2	Callum/Leslie	A different kind of rallying - navigational rallying
Navigational rallying - part 3	Callum/Leslie	A different kind of rallying - navigational rallying

Title	People involved	Description
Waiting for cars	Leslie, spectators	Spectators waiting for the first rally cars to arrive
The first car	Leslie, spectators	The first car passes the spectator point
The second car	Leslie, spectators	The second car passes the spectator point
Walking in	Leslie, spectators	Walking through the forest alongside the rally stage
At a junction	Leslie, spectators	Spectating at a junction on the Snowman Rally
Revising the notes	Colin	Co-driver altering route notes
Signing on	Competitors, officials	Discussions of environmental issues at signing-on
Signing on - part 2	Competitors, officials	Discussions of environmental issues at signing-on

For the navigational rally, I produced a twenty-minute video recording by placing the camera on my lap and then concentrating on taking part in navigating the car. The procedure for stage rallying was, however, much more complicated. Due to the practical impossibilities of accompanying a stage rally crew when they compete (the rear of the car is filled with safety and structural equipment), rally crews can be video recorded when they are competing by anchoring a video camera to the car's roll cage and leaving it to run while the crew drive the stage. Typically, for one stage this would give a video recording of about ten minutes in length.

The logistics of acquiring such footage were made much easier for me by the fact that many crews already get television or video recording companies to film them driving for posterity or critical evaluation, and these videos are then posted in the public domain on rally team websites or video sharing sites such as YouTube. These videos show the driver and navigator, the road and the landscape they are moving within. It is possible to hear the conversation between the driver and co-driver, view the gestures the crew members make to each other, observe any use of the controls of the car and look at the surroundings the car is moving through.

I was able to acquire such video recordings of competitors of all levels of experience 'in action' by asking the filming companies who had made the initial recordings for a copy of the recordings and gaining their verbal consent to use these in my research. The companies in question were more than happy to help me – one did ask if I was seeking to defend or criticise motor sport, but was happy to hear I was taking a neutral stance in this regard – and expressed an interest in hearing about the findings of my research. At this stage I should also note that for the stage rallying videos, as the camera is started prior to the beginning of the stage and left to run throughout without the opportunity for interference, there is virtually no possibility of the crew modifying the recording and reducing the validity of the film as a data source for my research.

In addition to the recordings of rally competitors 'in action' from inside their cars, I attended one forest stage rally in Scotland purely as a spectator, video recording and noting my observations, and visited the same location the day before and the day after the rally in order to assess any physical damage and also to gauge the change in atmosphere between when a rally was passing through and when the forest was empty. Two further spectating excursions into the forest on Scottish rallies were carried out, one in the company of a recently retired skilled driver and the other with a world championship team manager. The opportunity to meet these individuals actually came through the organisation I was carrying out one of the participatory projects with (see Section 4.3.3). For the visit to the rally as a spectator, the visit the day before the rally, and the visit the day after the rally, video recordings of around twenty minutes were made per day. I conducted the further two spectating excursions without the camera in order to concentrate fully on discussing rallying with the people that came with me, but produced around 500 words of field notes for each. In total, this gave 27 videos of rallying, each around 20 minutes in length.

For non-motor sport participants, a range of stakeholders motor sport communities may share land with were observed. Sampling here was based largely on the responses received by the Forestry Commission to their (since aborted in Scotland) proposals to sell off some of their Scottish forests in relation to the Climate Change

Bill⁸. These responses were made public and hosted online (www.forestry.gov.uk, accessed 15/02/2010), giving an invaluable opportunity to see a whole cross-section of formal and informal forest users who invested emotionally in the forest enough to write in to the Forestry Commission and make their (almost exclusively negative) views on the plans known. Bearing in mind O'Neill's (2007) point about non-participation in such processes as an often deliberate and conscious act, in order to get a handle on any stakeholder groups who may have chosen not to participate in such a process I consulted Forestry Commission documents on forest management (Forestry Commission, 1986; Forestry Commission, 2009a) and paid careful attention to any stakeholder groups mentioned during in-depth interviews or participatory exercises that I had not previously heard of (as it happens, I did not come across any group who had not participated in the consultation exercise).

The result of this was a pool of motor sport non-participants who were involved in participant observation. I accompanied a Forestry Commission ranger and trail designer for a morning as he went about his duties of managing and directing repairs on a Scottish trail, and recorded dog sledders, field archers, fourcross mountain bikers⁹ and deer stalkers demonstrating their practice. In much the same way as rally drivers record their driving for posterity, it was possible to acquire footage of mountain bikers through the public domain, and I myself got involved in forest walking and very basic mountain biking. For each of the activities I undertook myself, a twenty minute video was shot, and for each of the observations of others, a ten minute video was produced. Table 4.3.2 lists up all the exercises that were carried out for non-motor sport activities – in total, this gave 13 videos of non-motor sport activities, each of around 20 minutes in length.

⁸ I am grateful to Jonathan Lord of RSAC Motorsport and David Henderson-Howat of Forestry Commission Scotland for pointing me in the direction of these responses, which turned out to be an invaluable sampling tool.

⁹ A fourcross mountain bike is a four-wheeled mountain bike, containing many of the features of a conventional mountain bike but featuring a sit-ski seat between the rear wheels. Fourcross mountain bikes were developed initially by a disabled athlete to allow him to ride mountain bike trails, but are promoted as being suitable for all riders (www.roughriderz.co.uk, accessed 15/02/2010).

Figure 4.3.2 – non-motor sport participants in ethnography

Title	People involved	Description
Ae – The Omega Man	Unknown rider	Downhill on mountain bike in Forest of Ae, Dumfries and Galloway
Cycopath	Unknown rider 2	Short clip of riders using features in Glentress forest
Final Two Downhills on Glentress Red Route	Unknown rider 3	Downhill on mountain bike in Glentress, Dumfries and Galloway
Mountain biking Scotland	Unknown rider 4	Short clips of forest mountain biking
Walking a trail	Steve, Leslie, volunteers	Trail designer Steve shows features on a trail
A fourcross bike	Dave, Leslie	Fourcross rider Dave explains the features on his bike
Snow cycling	Leslie	On a bike in the forest in snow - how weather affects mobility
Day before the rally	Leslie	A walk through a forest before a rally
Day before the rally - part 2	Leslie	A walk through a forest before a rally - once the camera has warmed up again!
The day after	Leslie	Walking the same route as before, except this time the day after the rally
Target shooting	Bob, John, archers	Field archers training indoors
The deer hunter	Brian	Brian demonstrates how to use a shooting rifle
Dog sleds	Mike, Karen	Karen and Mike explain the various pieces of equipment needed for dog sledding

Prior to the main data collection phase, much shorter video recordings were obtained from participants' existing collections or downloaded from the internet for as many of the activities as possible in order to assess where the camera could be positioned (particularly important for fast-moving vehicles – see Figures 4.2 and 4.3 for

examples of the kind of positions available) - what sorts of experiences I could expect to see during the main data collection phase, and also practical issues of how to process and store large data files. Informal conversations with those I was due to carry out the participant observations with also helped to glean this kind of information.

Figure 4.2 – sample camera positions for motor sport ethnography



Figure 4.3 – sample camera positions for non-motor sport ethnography



Following on from this, the main participant observation was carried out over dates and times and at locations convenient to the research participants. The pilot phase ran from September to November 2009, with the main data collection for the ethnographic section of the research running from February to June 2010. In order to view the participants taking part in their activity in as 'regular' a setting as possible, I travelled to wherever they were competing or practicing – for instance, I

accompanied the mountain bike trail designer in his vehicle as he went about his morning's duties, and met the group of field archers at the village hall where they were training.

As a number of participants in the ethnographic phase were also involved in in-depth interviews in order to afford additional explanatory power, the in-depth interviews tended to be run at the same time in order to reduce longitudinal time commitment on participants. For participants involved in both participant observation and in-depth interviews, I aimed to conduct participant observation first so that clarification may be sought in the in-depth interview, however in practice I found that it was more helpful to build rapport with participants first in an interview setting before going into the video recording, the reason being that the participants were generally keen first of all to tell me about what they did and find out about my research – things I intended to find out in through interviewing anyway. Nonetheless, there was always opportunity both during and after the participant observation to seek further clarification if necessary. The digital video recordings generally lasted no longer than 20 minutes, and the non-recorded participant observations lasted a maximum of one hour.

Recruitment for motor sport participants in the ethnographic work came through personal contacts. As most of the videos had already been recorded by a television or video company, I was able to gain access to the videos by getting the permission of the companies in question – and if I saw anything in the videos that might have portrayed the rally crew in a negative way (such as, say, running over an animal, damaging a tree or speaking negatively about other people) I made a point of asking the direct permission of the crew as well even though the videos were already in the public domain. My relationship to rallying made sampling easier, as I was easily able to identify the types of crew and vehicles that would fit the relevant levels of experience for my sampling strategy. As mentioned above, key stakeholder groups and names for non-participants came from the responses to the Forestry Commission's Climate Change Bill plans. Contact details for individuals came from Sport Scotland (www.sportscotland.org.uk, accessed 17/11/2010), from organisation

websites, or via personal contacts gained through prior research with subsequent 'snowball' sampling. (At the same time, however, attention was paid to potential issues of 'gatekeepers' (Bryman, 2004)). In most instances, contact was made by telephone, however if this was not possible email was be used.

The date and location for the participant observation was set at first contact if possible. It was also established whether participants wished to record themselves, or if they wished me to carry out the recording for them (this was not possible in all situations, such as in a rally car or mountain bike where there was no space for an additional person!)

One week prior to participant observation, participants were emailed plain language statements and a sample consent form (see Appendix III), however if requested these could also have been made available by post ten days prior. Two days prior to the participant observation, participants were contacted by telephone or email to confirm date and venue, and also to check they had received the plain language statement and sample consent form. At start of participant observation, participants were again reminded that they had the right to ask if recording could be stopped and/or the session be terminated at any time, and the opportunity was given to ask any questions. If the participants were to control recording themselves, I explained to them how to start and stop recording, paying particular attention to making sure they knew they were free to stop recording at any time, and more importantly ensuring they knew how to do this!

Once all technical and ethical issues were addressed, the recording or note taking commenced and the participant observation began. As mentioned earlier, video recording lasted no more than twenty minutes in order to make data files easier to handle, and non-recorded participant observation lasted no longer than one hour. Upon conclusion of the participant observation, participants were reminded of their rights and about research ethics, and were given an opportunity to briefly review any recordings made on the small screen of my video recorder, whilst being reminded that they would have further opportunity to review the recordings at a time

convenient to them if they so wished. Signed consent forms were collected in, and I left my contact details. The video format participants wished to receive their recording in for checking – if they requested to review it - was also established.

As soon as possible afterwards, the video file was processed and/or the field notes were written up. The video file and associated notes were then sent to those participants who had requested it for checking within seven days. Participants were then allowed twenty-eight days to make any alterations or amendments, and they were informed that unless a different timeframe was agreed beforehand, if no reply had been received within twenty-eight days it would be assumed they were satisfied with the recording and notes.

4.3.2 In-depth interviewing

The in-depth interviewing phase of the research mainly concerned the discussion of experiences of nature, participants' broader life narratives, and their perceptions of environmental issues. It afforded an opportunity to discuss with participants why they do the activity they do, their stories of past involvement, what they see as the most valuable aspects of their interaction with the natural environment, what detracts from the value of their experience, where their favourite places are for that activity and why. Furthermore, for those involved in the participation/observation phase, the in-depth interview provided an opportunity to clarify and/or explain any actions that seemed interesting to the researcher or could not be understood from the video material. It was an opportunity to press both participants and non-participants on issues of ecological identity work in a reflective setting away from the immediate pressures of the field. For motor sport participants, the interviews aimed to provide an opportunity to consider how they perceive environmental issues, and also how they feel other recreation groups perceive them. For non-participants, it gave a chance to consider why – if at all – they may hold ethical objections to motorised recreation or indeed to any other activities that may take place in the natural environment. A sample interview schedule detailing the general flow of discussion is included in Appendix IV. Table 4.3.3 lists all participants interviewed for this

research, with further technical information on the interviews available in Appendix I.

Motor sport participants for in-depth interviewing were recruited through personal contacts and subsequent ‘snowball’ sampling in order to gain a solid cross section of rally participants with different levels of experience and age. In much the same vein as the participant observation, the aim was to engage with as broad a range of identities as possible. From motor sport communities, competitors of different levels of experience were interviewed – an international-level co-driver, a retired ‘amateur’ driver and a skilled navigational rally navigator. I also interviewed those involved with rallying who were not currently competitors in order to get a sense of the broader histories and contexts of rallying. To this end, I talked to a rule writer from the Motor Sports Association, an environmental scrutineer responsible for measuring the noise levels and emissions of cars at rallies, and a film producer with a long history of making television programmes about rallying. What was particularly interesting was that a number of the non-competitors had in the past been drivers and/or co-drivers, before moving on to do other things within rallying.

It is again worth noting here that my knowledge of Scotland’s rallying communities and the people within them made it easier to identify appropriate people to interview, and also made making arrangements for the interviews easier. Whilst motor sport and the environment is a contentious issue, with many involved concerned about providing ‘ammunition’ for a perceived ‘anti-motor sport’ lobby, motor sport participants were generally happy to meet and discuss environmental issues once I explained my research aims and also my links to rallying. I talked in Section 4.2.6 about the ethical implications of this, but again let me make clear the non-covert nature of the research and the fact all participants were aware of what I was doing and – in the case of motor sport competitors and officials – in cases actively encouraged me to be critical of their practices.

The sample of non-participants selected here was again based on the cross-section of stakeholders, especially recreational stakeholders, who had responded to the Climate

Table 4.3.3 – in-depth interview participants

Name	Appr-ox. age	Reason for interviewing	Occupation	Other interests raised in interview
Geoff	55	Motor sport environmental scrutineer	Local authority environmental warden	Long-distance running
Robert	60	Carbon neutral rally organiser	Retired university lecturer	Restoring and driving classic cars, history, theology, philosophy
Donald	65	Retired rally driver	Retired stockbroker	Driving rally cars (retired), organising rally championship
Alistair	50	Forestry Commission manager	Forestry Commission manager	
Laura	20	Orienteer	Student	Orienteering, fell walking, navigational rally navigation
Duncan	35	Forestry Commission ranger	Forestry Commission ranger	Bird watching, rock climbing
Greig	60	Motor sport film maker	Motor sport television programme producer	Rally driving (retired), rally navigating (retired), former garage owner, engineer
Brenda	45	Carbon offset charity volunteer	Climate change officer	Environmental issues
Steve	40	Mountain bike trail designer	Forestry Commission bespoke path builder	Mountain biking, outdoor craft
Dave	30	Fourcross rider	Fourcross event organiser	Motorbiking
Bob	70	Field archery	Retired fisher	Fishing, hill walking, cycling
John	60	Field archery	Archery instructor	Field archery

Name	Approx. age	Reason for interviewing	Occupation	Other interests raised in interview
Brian	50	Deer stalking	Official for shooting organisation	Fishing, deer stalking, public access
Peter	65	Forest researcher	Retired forest researcher	Social forest research
Martin	50	Rally co-driver	Electrical goods store manager	Rally navigation, organising rally championship, national rally senior official
Keith	45	Path designer	Path designer	Conservation volunteer
Karen	40	Dog sledding	Press officer	Dog sledding, dog breeding
Mike	40	Dog sledding	Oil engineer	Dog sledding, dog breeding, sports cars
Malcolm	45	Forest star gazing	Star gazing facilitator	Environmental interpreter
Simon	45	Landscape architect	Forestry Commission landscape architect	
Tom	55	Motor sport rule maker	UK motor sport environmental regulator	Motor sport organiser and competitor (retired)

Change Bill consultation, however again I was careful to think beyond this and consider those who may not have known about the consultation or may have been unwilling to participate. To this end, I drew on Forestry Commission information about the main types of recreational land use of Scottish forests (Forestry Commission, 1986; Forestry Commission Scotland, 2009b; Stevenson, personal communication), to gain additional information about interest groups most likely to have come into contact with motorised recreationists. This gave a range of recreational and professional forest users. Included in this were mobilities as diverse as mountain biking, deer stalking, field archery, walking, and fourcross mountain biking. I also interviewed those who had a more ‘working’ engagement with the

forest in order to consider how doing work instead of recreation might affect the nature of their environmental experience – in this regard, I talked to a mountain bike trail designer, a ranger, and a path builder. Furthermore, to add to the regulatory and managerial context that is important given the practical focus of the research, I spoke to those involved in more managerial roles, including Forestry Commission managers and landscape architects.

Given that I had done Masters research on a similar topic from 2007-2008, I felt I had a solid understanding in the dynamics of in-depth interviews, in particular interviews that dealt with questions of ecological identity and environmental responsibility (Mabon, 2008). I was therefore able to think of these Masters interviews, which ran from January to May 2008, as being a kind of ‘pilot’ for the PhD work, and built the insights I had learned on starting with more practical questions to build rapport into my interview schedules for this project. The interview phase of this research lasted from April 2009 to June 2010, and a total of 21 interviews were carried out with 19 participants. These interviews were carried out at dates and locations convenient to participants. When interviewing those in more professional roles such as Forestry Commission employees, the interviews took place during the week at the employees’ offices, and I travelled to meet the employees at their workplaces in all cases. For the recreational participants, the interviews either took place at their home or at the meeting place where they started their activity, depending on which suited their time schedules best. Again, in all cases I travelled out to meet the interviewees. The interviews did not last more than one hour unless participants wished to speak for longer. If permission was granted – which it was in all cases here - interviews were digital audio recorded.

I made initial contact with the motor sport participants I wished to interview through personal contacts, usually by telephone. As I mentioned above, participants were generally willing to speak to me about environmental issues as they knew my own rallying background. Those that did not already know me personally tended to be reassured when I explained the rally organisations I was associated with and the fact I was doing university research that took a neutral stance and was not set up to

criticise motor sport as such. A prominent figure from a rally that had recently received negative publicity because of conflicts with other land users said he would need to be sure he ‘knew who I was’ before he would speak to me, and although this interview did not go ahead because of logistical constraints, the plain language statement from the university was able to satisfy this request. Key contacts for non-participants were obtained, as with the recruitment for the ethnographic work, through organisation websites identified from responses to the Climate Change Bill, and also through Forestry Commission, the Royal Scottish Automobile Club’s email list of other forest users, or through Sport Scotland’s website (www.sportscotland.org.uk, accessed 17/11/2010). There was also subsequent ‘snowball’ sampling and interviewing of those who were involved in the participant observation phase if time commitments permitted. In most instances, contact was made by telephone, however if this was not possible email was used. When contacting motor sport non-participants, I perhaps unconsciously foregrounded the fact I was affiliated to the University of Edinburgh as opposed to the fact I was a motor sport enthusiast, however I was always quick to explain that I was doing research into rallying and was keen to look at other forest users. In every case, the participants were very interested in my work and were happy to arrange to meet me, which was made easier by my flexibility with dates and times and – it must be said – my willingness to walk up to six miles to reach remote locations on foot!

One week prior to the interview, participants were emailed plain language statements and sample consent form, however if requested these could also have been made available by post ten days prior. Two days prior to the interview, participants were contacted by telephone or email to confirm date and venue, and also to check they had received the plain language statement and sample consent form. At start of the interview, participants were again reminded that they had the right to ask if recording could be stopped and/or the session be terminated at any time, and the opportunity was given to ask any questions.

Once all technical and ethical issues were addressed, the interview commenced and the recorder was turned on. Interviews were audio recorded in order to keep file size

down and thus make data processing easier, however any additional observations were noted on a notepad – participants were made aware at the start of the interview of the fact that I may from time to time take notes, and were told they would be given an opportunity to look at what I had written at any time if they so wished – as it happened, though, nobody requested to see the notes. As mentioned earlier, the interviews lasted no longer than one hour unless participants wished to talk for longer. Upon conclusion of the interview, participants were reminded of their rights and about research ethics. Signed consent forms were collected in, and I left my contact details. The format participants wished to receive their transcript in for checking (electronic, paper or alternative) was also established. Most participants were happy for me to use the data collected for any purpose I saw fit, but those representing official or governing bodies tended to request that I did not use their quotes as a representation of the views of their organisation as a whole, and some of them requested that their recordings or quotes were not used in formal publications.

As soon as possible afterwards, the audio file was processed and any additional notes were written up. Each participant was assigned a pseudonym, and the transcript and associated notes were sent to the participants for checking within seven days. Participants were then allowed twenty-eight days to make any alterations or amendments, and they were informed that unless a different timeframe was agreed beforehand, if no reply had been received within twenty-eight days it would be assumed they were satisfied with the transcript and notes. About half of the participants responded with changes to the transcripts, many of them to remove the ‘ums’ and ‘ers’ that surprised them when they saw their speech written out in textual format. A few other stakeholders changed minor facts or added extra information, and several asked for certain sentences to be removed that inadvertently on re-reading presented other people in a negative light.

4.3.3 Participatory Appraisal

The final technique the research drew on was two small-scale participatory projects concerning motor sport and environmental issues. One of these was with a single

stage rally, and the other was with a low-cost season-long rally championship. Both the motor sport event and motor sport championship expressed an interest to me in carrying out a small-scale environmental programme with a tangible change in their practices as an end product, doing so because they were aware of my research interests alongside my enthusiasm for motor sport. For both the rally championship and the rally event, the motor sport participants set the agenda for discussion and action themselves, deliberating over what they thought the most appropriate course of action to tackle their environmental impact was (if any), and discussing how most effectively to implement any course of action agreed upon. The rally championship agreed on a campaign of carbon offsetting, running feature articles on their website about the environment, and displaying leaflets and posters at their events about their programme. The single event stepped up their programme of engagement with the local community, having a display of cars in the centre of the town where the rally would be based, running a question-and-answer session with competitors and organisers, and working closely with the local authority and forest conservancy to minimise any social or environmental impacts of the rally. I discuss the process through which these courses of action were deliberated in Chapters 6 and 7.

My role in this process was largely one of facilitation and helping to carry out practical action. By facilitation, what I mean is leading the discussions on environmental issues, which generally came as a sub-section within broader organisation committee meetings. This meant that for both the championship and the event, environmental contributions became regularly discussed as a matter of course alongside other factors pertaining to the running of rallying (such as, say, adjustments to rules, upcoming events, financial reports). For each meeting I prepared a short report based on what had been discussed in previous meetings or in the interim, which would form the basis for subsequent deliberation (a sample of this is provided in Appendix V). If any action was agreed upon, the group would discuss who would do what. This leads me on to what I mean by 'practical action'. In this regard, what I did in between meetings was a lot of the ground work for enabling the rally organisers to implement any practical outcomes on which they had agreed. The kinds of things I am getting at here are calling up carbon offset organisations to find

out prices and request ethical clarification over points such as where the trees would be planted, drafting press releases for issue to motor sport and online media, and preparing notices for events to show competitors how the rally officials were attempting to deal with environmental challenges. As with the facilitators in Burgess et al's (2000) study of deliberations over a Wildlife Enhancement Scheme, I confined my role to one of maintaining a congenial, supportive and reflexive atmosphere, allowing the groups to explore the issues raised at their own pace and in their own way.

Although I was approached by the organisations in question and as such cannot take much credit for having a strong participatory component in my research, for me the participatory projects became an ideal place to explore the links between environmental ethics theory and practice. I was particularly interested in the work of environmental pragmatists such as Varner et al (1996) and Shapiro and Takacs (2006) on how philosophical standpoints can be brought into practical deliberation. At the same time, however, following Rawles (1995) and Sagoff (2004) my intention was also to consider what the environmental philosophy literature might be able to learn from how stakeholders reason towards actions and standpoints in practice. I will discuss the outcomes of this in much more depth in Chapters 6 and 7, but at this stage it may be helpful to point out some of the key things I found in this area. Namely, the potential for drawing on participants' non-motor sport identities as ways of teasing out ideas of respect for nature, the value of thinking through what 'the environment' actually means to those perhaps hostile to environmentalist ideas and, more practically, the importance of not being overly-optimistic about what one can achieve but also not being overly cynical about stakeholders' efforts.

In keeping with the definition of environmental deliberation as something extending beyond formal meeting rooms to encompass any discussions over environmental issues, I was careful to pay attention not only to formalised discussions in the participatory projects, but also the informal conversations and actions associated with the participants' responses to environmental issues. Harrison et al (1996) suggest that looking at naturally-occurring conversation in this way can allow

researchers to study in more depth the kinds of arguments people mobilise to rationalize their environmental practices, as the social contexts of everyday life are more accurately replicated in this kind of talk. The motor sport championship had formal meetings once every two months, each of which included a 15-20 minute discussion on the environmental contribution that could be made – these discussions involved the championship chairman, the co-ordinator, the treasurer, a driver, two general committee members, and myself as facilitator (Table 4.3.4 lays out the list of participants involved in this process). Every month, the championship would be involved in a different car rally, and on the evening before the rally each of the 20 or so registered crews would come along to the championship desk at rally headquarters for 5-10 minutes and register for the event. During this time, the crews would contribute to the carbon offset programme (they would pay to offset the emissions produced in the course of travelling to and from the event), and in turn would often become engaged in a short discussion about environmental issues with the organisers. I was also present at these informal meetings in my role as an event organiser, but would provide explanation on environmental issues if asked – being careful, of course, not to be overly critical of either radical environmentalists or uncritical motor sport participants.

The motor sport event, by contrast, has since 2007 run a social and environmental programme year on year with the aim of reducing the rally's environmental impact and improving the event's relationship with the local community in which it takes place. There are several strands to this. Firstly, there are explicit environmental aims realised by working with the local Forestry Commission in order to choose routes that will minimise conflict and environmental damage. These are responsibilities that *all* stage rallies must adhere to as part of being granted permission to the forests and as such have nothing to do with my presence, but as the Forestry Commission rules often sparked discussions on environmental issues and as such were an interesting part of the rally organisers' environmental deliberations worth studying. Secondly, the rally's strategy involves broader social aims of reducing perceived opposition towards the rally by demystifying the sport and allowing the public to ask questions. This took the form of showing cars to the public and holding question-and-answer

sessions with competitors and organisers, as well as liaising with the local media to promote the rally and hopefully reduce the potential for conflict with other stakeholders. Although the scope of much of this extends beyond the environmental impacts, it does relate to questions of how something such as rallying comes to be perceived as being a ‘bad’ thing and how values conflict over the use of the natural environment may occur. In the five months leading up to the rally, meetings were held roughly every three weeks, and again during this environmental issues formed part of the agenda and warranted 10-15 minutes’ discussion. The ‘preview day’, where cars were displayed in the town centre with competitors and officials on hand to answer questions, ran all day on a Saturday two weeks before the rally, and the question-and-answer forum was held several days before the event. I was present at these meetings and events, and as with the rally championship I tried to restrict my role to being one of offering technical and ethical clarification where necessary without trying to support any particular viewpoint on rallying and its relation to the environment.

Table 4.3.4 – participants involved in participatory projects

Name	Approximate Age	Role
Championship		
Donald	60	Co-Ordinator
Bill	50	Chairman
Martin	50	Secretary
Chris	55	Assistant Co-Ordinator
Jim	55	Treasurer
Stuart	30	Drivers' Representative
Leslie	25	Facilitator
Event		
William	55	Clerk of the Course
Martin	55	Deputy Clerk of the Course
Charlie	45	Assistant Clerk of the Course
Stephen	45	Forestry Commission Manager
Heather	35	Local Authority Representative
Leslie	25	Facilitator

As mentioned above, I was approached by both the event and the championship to help set up participatory programmes after my MSc dissertation research. Recruitment therefore took the form of voluntary self-selection! The voluntary nature of participation eliminated any major difficulties in encouraging rally participants to get involved, however I remained aware of the possibility of potentially waning enthusiasm over time. In this regard, the positive benefits of addressing environmental issues in being able to continue rallying with fewer conflicts were often raised as reasons why participants' enthusiasm did *not* wane as much as I was concerned it would. In total, I followed both the championship and the single rally for two seasons, 2009 and 2010, with the championship's season each year running from February to November, and the rally planning running from February to June.

The often informal nature of interpersonal contact within the rally driving framework made the recording of discussions difficult, therefore my observations were generally based on notes taken during meetings and informal conversations. I quickly discovered that most discussion and deliberation of environmental issues within the projects I was involved with actually did take place through informal conversations and email contacts. For both the championship and the event, then, I kept a field diary where I noted what had been discussed both during formal meetings and informal interactions, putting my views and feelings alongside this (as mentioned already, samples of this can be seen in Appendix V). Whilst still allowing a rich range of viewpoints to come across, this posed ethical challenges in that the boundaries of consent become blurred. In order to work round this issue, I made a point of occasionally reminding participants that I was still carrying out research and was interested in what they were saying, often explicitly asking people if they minded me noting down and anonymously using what they had just said. This posed few problems once confidentiality was assured, however I was still keen to remind the other participants that consent could be withdrawn at any time. As with the ethnography and the in-depth interviewing, all participants in the two projects were assigned pseudonyms, and when using extracts from my field notes in documents to

be viewed by other people I was careful not to reproduce statements that could make any participant's true identity apparent.

In order to provide some kind of overall 'transcript' or representation of the deliberations that could be viewed by the participants and agreed with ethically, at the end of each rally season (2009 and 2010), I produced a short summary that was delivered during each group's committee meetings. In this summary, which I shared with the group verbally, I reiterated what had been discussed, who (anonymously) had said what, what notes I had made and what I had found useful or interesting. This was a good opportunity for people to raise anything they objected with, however I also made clear that people could speak to me privately if there was anything they wanted me to change or remove from my notes. My aim in doing this was to produce a 'narrative' of the deliberations that was appropriate for the informal nature of the discussions whilst still bringing this into more formal ethical procedures. I also led a brief discussion on how useful the participants felt the session had been for them, paying particular attention to what they had gained either personally or for their organisation from participation. The key points here – which I will explore in Chapters 6 and 7 – were that many participants valued a clear 'audit trail' between their actions and positive effects on the environment, that choosing to help other humans over helping the environment was generally seen as a more logical thing to do, and that the perception of an amorphous 'green lobby' who were out to 'stop' motor sport remained.

Having worked through my research design from the broader epistemological and methodological concerns down to the very practicalities of doing my fieldwork, I now want to move on to talking about the data I constructed and what it says for overarching ideas of respect for nature. This will be done by looking at how participants sense 'the environment', how they perceive themselves in relationship to it, and finally evaluating what shapes the way stakeholders act towards the environment. The final section about action will – in keeping with the grounding of this study in environmental pragmatism – also serve as an extended concluding

section that brings together the reciprocal relationship between environmental ethics theory and practice.

5. DATA ANALYSIS – A PRECURSORY NOTE ON PRESENTATION AND AN OVERVIEW OF THE DATA

In keeping with the challenges of (a) understanding the embodied experience of the natural environment, (b) thinking how this embodied experience and wider contexts may work together to shape ecological identities, and (c) considering how stakeholders perform and negotiate environmental values in practice, my analysis of the empirical data is broken down into the broad themes of *Describe*, *Explain*, and *Act*. As such, my analysis will not be divided down neatly into an analysis of the findings from each individual research method. Rather, data from participant observation, in-depth interviews, the participatory projects and, where necessary, documentary work will be drawn on as and when appropriate in order to demonstrate and support points. I believe that attempting to analyse the data constructed from each method in isolation runs the risk of over-simplifying the complex nature of environmental values and ecological identity work. That is, whilst in my research design the primary function of, say, in-depth interviewing is to unpack questions of ecological identity work, if I feel an extract from a video taken during participant observation can best explain what I am getting at, then I have used it accordingly. This also has the added advantage of helping to illuminate the links between embodied experience, relationships to other humans and relationships to the natural environment.

A DVD is included with this thesis, featuring a series of video clips from my fieldwork. In consideration of my arguments about the multisensual ways in which environmental values are formed and Büscher's (2006) thoughts on how landscapes are viewed 'in motion', I feel it would be doing my data something of a disservice if I did not present the data in something close to its original form, or at least offer the reader the chance to analyse the data in the same form I did rather than having to rely on transcripts and stills alone. Although I would hope my in-text analysis is able to stand alone, the DVD is able to provide additional context should the reader desire it. Links to video clips will be clearly marked in the text at the appropriate points, and a summary of the DVD content is given in the introductory matter of this thesis.

5. DESCRIBE – WHAT ARE ‘ENVIRONMENTS’ HERE AND HOW ARE THEY SENSED?

5.1 The forest landscape

5.1.1 Introduction

This section considers what exactly the Scottish forest landscape is, what kinds of mobilities take place within it, and what kinds of skills and knowledges come together to make up the Scottish forest landscape. In line with the overarching aims and questions of my research, the aim of doing this is to get clear what is actually being referred to when participants speak of ‘the environment’ and subsequently to gain some initial analytical purchase on how environmental values may be reasoned towards and actions shaped as a result of mobility in the forest. To do this, I draw on a number of different kinds of mobility that take place in the forest, going beyond rally driving to look at other recreational and professional mobilities.

Firstly, I consider the nature of the built forest environment, thinking about the spatial experience of being in the forest and the topographical features that people value. I then discuss the kinds of recreational mobilities that take place in the forest, the main aim of this being to try to identify how conflicts between rally competitors and other access takers may occur and what common ground may exist on which to build practical consensus. Finally, I explore the idea of the forest as a skilled landscape, the purpose of this being to look at the different knowledges at play and think how these varying understandings may lead to values conflicts.

This section is largely descriptive as it concentrates on what the forest environment means here. Discussion on how environmental values are shaped and how these play out in practice will be discussed in more detail in subsequent sections. I will, however, keep why this is important to my study to the fore and also flag up openings to literature and broader ideas as and when is appropriate.

5.1.2 The built forest environment

The first thing to note here is the spatial experience of being in a forest. A British forest of the kind that rally driving takes place within is an environment that sits somewhere in-between being natural and being human-constructed. Forests in which rally driving takes place are almost exclusively owned by the Forestry Commission, and as such in the very first instance serve the purpose of timber growth and extraction (alongside, of course, recreational and restitutive functions (Forestry Commission Scotland, 2009c)). Regardless of whether the forest is a natural or human-built environment, the purpose of the forest itself is worth some consideration as it has implications for the Commission's interest in – and thus shaping of – recreational mobility in its forests. Forestry Commission ranger Duncan offers his own potted history of the organisation:

when the Commission started it was 1919 and the primary aim of the Commission was just to plant trees and to get the resource of timber up and running again. And then as you went through the sort of sixties and seventies the people were starting to use the forests to go and walk through but the Commission really didn't want people in there because they're like 'we're trying to grow trees, go away please!' And gradually we've come completely full circle and now we're saying 'please come into the forest!'

The reason I see this as being important is that it illustrates a gradual shift in thinking in the Forestry Commission from perceiving the forest as a source of straight and true timber to marketing the forest as a space for recreational mobility. This transition is reflected in the interest the Forestry Commission seems to have in making forests attractive by enhancing the value of the embodied forest experience for recreational access takers (Forestry Commission, 1986). Landscape architect Simon discusses the experience of moving through the forest:

we usually inherit forest roads for various practical reasons, in other words the, the gradient suitable for the kind of vehicles that are going to use them and how they're going to compartmentalize the forest, but you can then design them so they stop becoming just corridors into actual spatial experiences [...] you can actually build a, even a road into an experience in itself, and, and that's, that is really part and parcel. So those corridors apply

equally to forest roads, tracks, paths, bridleways, even stream sides, water courses

This consideration of the thoroughfares in a forest as spatial experiences is interesting as it fits in with recent automobility literature that considers the spaces through which the car moves, and also links into Carlson's (2000) thoughts on how functional agricultural landscapes can still be aesthetically appreciated and can thus still be appropriate sites for forming environmental ethics. In particular, the expression 'stop becoming just corridors' parallels the work of Merriman (2006) on motorways and their relationship to car passengers and suggests that my work on movement through a semi-natural forest environment can provide a useful addition to the burgeoning field of automobility literature. In terms of the overarching aims of my research, what is worth paying attention to here is the heterogeneity of mobilities that can take place in the forest, especially the different embodied experiences that these mobilities may shape, the types of values they may inform and the potential for conflict or consensus to which this may lead.

Indeed, mountain bike trail designer Steve makes explicit links between the type of movement through the forest and how the driver/rider experiences that landscape:

it's looking at erm what we call positive control points, where do you definitely want to get the rider to, do you want to get them to this viewpoint, do you want to get that big rock in? So it's, it's almost like joining the dots up, so you say these are the points we definitely want to get to, can we connect those together

This extract illustrates the critical role the route taken through the forest plays in shaping the kind of experience people have. As a trail designer with experience of riding mountain bikes himself, Steve decides what the riders will deem valuable in their forest experience, paying attention to both aesthetic ('viewpoint') and topographical ('big rock') features. Similarly, path designer Keith talks about the use of boulders and 'rough terrain' to keep walkers on pre-defined paths, another situation where the views of the path designer on what is an appropriate and sustainable trail can affect the type of embodied experience access takers subsequently have. Within just one kind of mobility such as mountain biking, it is

worth noting that different states of movement exist. There are topographical features that riders will value for the challenge presented as they ride over them at speed (as pointed out by Steve during a forest walk – VIDEO CLIP 1), but there are also viewpoints that will mainly be appreciated while riders are taking a brief pause before entering the next section of trail (as seen in riders’ videos – VIDEO CLIP 2). This reinforces the importance of developing a close and intimate understanding of what different forest mobilities entail, so as to avoid forming uncritical assumptions about what is valued in each kind of mobility.

Linked to the above is the idea of the forests I am researching as modified environments. That is, as well as being planted largely by humans with anthropocentric purposes in mind, the forests under study here – and I extend this to private forests and naturally-occurring forests as well as Forestry Commission plantations - are very often modified environments. These modifications are not necessarily ‘bad’ things as they can in some cases facilitate easier access to the forest environment. For instance, fourcross rider Dave explains how an additional modification to the forest landscape opened up a trail for disabled downhill mountain biking:

right at the top section of a trail called The Shredder, there’s a tiny little bit of boardwalk, and [...] of course the boardwalk’s too narrow for our bikes [...] the next time we went back, where the boardwalk section is, there’s like a, a sharp left turn [...] we know our route is that left turn, so as soon as we get onto that section we turn left, drop away from the boardwalk, around the trees and actually join the trail underneath the boardwalk

The addition of boardwalk to the forest here proves to be something of a double-edged sword, because although it increases the technical challenge – and thus the value of the embodied experience – for two-wheel mountain bikers, it precludes disabled riders from using the same trail. Nevertheless, a further modification to the environment – a shortcut that misses out the narrow boardwalk – allows disabled riders to travel down the same trail as the two-wheeled riders by bypassing the human-made features that make mobility more difficult. Human intervention in the landscape need not necessarily always be a bad thing, particularly if it facilitates

mobility for stakeholders who may otherwise find access difficult. This in some ways mirrors Light's (2001) views on urban environmental ethics and the danger of privileging wilderness environments that many sections of the population do not have easy access to, in that 'pristine nature' as discussed by Rolston (1991) may be by its very nature difficult for some stakeholders to physically access. In other words, whilst the environments in which rally driving takes place are environments that have been to a certain extent modified by humans, I would argue that to dismiss such environments as unsuitable sites for the formation of environmental values risks excluding a range of stakeholders who rely on some human interventions to be able to access natural environments.

Modifications to the forest environment can help to fulfil some other anthropocentric values aside from facilitating access. I touched on this idea with reference to the field archery course, and the differences between recreational mobilities with regard to the kind of human interventions that are seen as desirable is interesting. In a rally context, observations during participant observation showed that very few human-made features were added to the forest (which, let us not forget, is in itself a largely anthropogenic construction) to enhance the challenge of driving, with those that were added largely being present for safety reasons. Chicanes constructed out of straw bales, cones or foliage, orange direction arrows and red and white tape to block off forest roads not part of rally route serve only to keep the speeds of cars down and give the crews additional navigational guidance so as to prevent a serious accident involving other users of the land. On mountain biking trails, by contrast, the addition of narrow wooden boardwalk and the landscaping of the trail to create 'jumps' (as well as the use of existing features in the landscape such as boulders – VIDEO CLIP 3) seem to serve the purpose of adding excitement and challenge to the route, providing a more engaging experience as opposed to a safer one.

When trying to identify potential areas of conflict, paying close attention to the nature of human intervention in the landscape can be a valuable exercise. Vaske et al's (2000) study into skier and snowboarder conflict in the USA pinpointed the different types of features each set of stakeholders valued in the snow sports

environment as a source of conflict, noting that snowboarders preferred the technical challenge of human-made features whereas skiers valued the more ‘natural’ features of the landscape they skied through. This point was aptly illustrated in my research with field archers Bob and John’s views on mountain bikers:

John: Rogue mountain bikers

Bob: Mountain bikers, yeah [...] they’re frequently found up on the field archery course at Eliebank

John: Yes, they don’t stay on their mountain bike tracks

Leslie: Ah

Bob: In fact they’ve got a habit of coming down through some of the targets, completely un, they just whizz, they’re down so they break our safety

What seems to be happening here is that the way the archers appropriate and modify the forest in the interest of safety – cutting down branches to make clear shooting lanes, placing shooting lanes in front of steep banks so that arrows missing targets fly harmlessly into the ground behind – are at odds with the value mountain bikers place on both human-made and ‘natural’ features in providing a challenging ride. I am not trying to claim that mountain bike riders are ‘unsafe’, only that the steps field archers take to increase safety may make the same environment attractive for mountain bikers as a source of technical challenge. Paying attention to how precisely the environment is modified for different activities can thus go some way to identifying how conflicts over the same space may arise.

Related to the possibility of values conflicts over use of the same spaces is the notion of certain kinds of mobility being undesirable in the forest, with the forest being landscaped to ‘design out’ certain behaviours. Forestry Commission manager Alistair gives a clear example of the way the built forest environment can shape particular kinds of action and discourage others:

rally drivers have learned a number of tricks [...] one of them is you put these two nearside wheels into the ditch and that pulls you round the corner but the amount of damage it does on the road is horrendous. So you can

configure the inner, erm part of the bend with er material and logs and things which keeps the car on the road and minimises the damage

Naturally occurring features in the forest environment are here deployed in order to shape a particular kind of mobility for rally participants. The practice of ‘ditch hooking’, where two wheels are driven into the ditch to ‘pull’ the car round the corner more quickly (this can be seen in a number of the driving videos I gathered, for example Richard and Martin’s journey), is useful for rally crews as it allows greater speed but damaging to the forest environment in terms of ditch erosion and water course pollution. Logs and other materials are therefore placed on the inside of the corner to prevent cars from cutting across the inside of the bends and causing erosion – attempting to do so in the presence of logs would cause serious damage to the vehicle’s running gear and body.

Figure 5.1 – motorcycle inhibitors. These are used as a deterrent for illegal motorcycle access to public green space.



Source:

http://www.dft.gov.uk/cyclingengland/site/wp-content/uploads/2010/08/stoke_barrier_policy.pdf, accessed 17/12/2010.

Although Alistair’s point relates in the main to keeping the forest roads in good working order for timber lorries to use, I draw on it because it stands as a fine example of how rally driving can come to be seen as an undesirable activity in the forest due the physical damage it causes. For a good example of designing out mobilities seen as undesirable in terms of potential for conflict with the *values* of other users, however, let me refer to path designer Keith. He explains that motorcycle inhibitors can be placed at the

entrance to woodland paths (see Figure 5.1) as a deterrent for those (who he describes as usually being young males who cannot ride on public roads due to their

age or the nature of their vehicles) wishing to ride trials bikes on forest paths. Aside from the legal aspects, Keith talks at length about the noise of motorcycles and the intimidating effects these loud, rapid vehicles piloted by helmeted riders can have on other access takers. He also points out the safety implications of having fast, unregulated motorised vehicles using public paths, as well as the damage these motorcycles can cause to sensitive environments. For the forest and rural environments Keith is working with, then, the use of human interventions to 'design out' unregulated dirt bike use is motivated not only out of economic concerns about the cost of repairing damage caused by vehicles, but also out of the potential for value conflict with other stakeholders and concern for the intrinsic value of the natural surroundings.

A final point to note with regard to the forest as a modified natural environment is the theme of making human interventions in the landscape look as 'natural' as possible. Even if the topography of the forest is modified with the explicit intention of fulfilling seemingly anthropocentric preferences, there still appears to be a desire to give these modifications a natural quality. Trail designer Steve illustrates what I am getting at in practice:

Steve: You, you blend it with the land.
>Everything's got to look as though it was<

Interviewer: Reason-

Steve: It won't when you first done it, but afterwards it will and we will get this line controlled

[...]

Steve: And what we'll do is you'll come have enough speed to come down here and you'll get a jump, you'll kick off this ((gestures to the right and walks to end of damaged area))

Interviewer: Yup

Steve: You'll clear all that, you land on the downslope, so >that's what we're trying to create< is constant little features there

The aim of intervention here is to create a ‘jump’ on the mountain bike trail for riders, and also to build up the ground at the sides of the track to prevent riders from deviating from the trail and causing damage to the surrounding ground. Even though work is being carried out with the explicit intention of doing something that makes the ride more exciting for participants and contains the potential for environmental damage, there is still a desire to make the landscaping look as natural as possible – in other words, a great deal of time, effort and consideration is put into making the internal forest landscape look as if humans have paid no attention to its topography whatsoever! Although the forest is very much an environment modified by humans that serves a number of human purposes, then, there remains a preference for this environment to look as undisturbed and ‘natural’ as possible. Steve’s explanation of the shaping of the feature ties in with Simon’s broader discussion:

people began to see their landscapes, they saw these forests as like a figure on ground, and they saw the geometry, usually a, a square or an oblong that was being imposed upon an organic semi-natural landscape. The shape was the thing that hit them in the face and said to them this is alien, this is an introduced something, this is something from somewhere else, there is no relationship with the pattern of the landscape

Simon’s use of hostile, negative language such as ‘imposed’, ‘hit’ and ‘alien’ here illustrates the idea that even in semi-natural environments such as commercial forests, landscape features that are clearly introduced by humans are seen as less valuable due to their geometric forms. This links back to the point Steve made about how “everything’s got to look as though it was...” and perhaps reflects a desire for some degree of authenticity in the embodied, mobile experiences recreationists have in the forest. This in turn relates to the argument of Cater and Cloke (2005:15) that “you can bungee jump off a crane in a car park, but people would far rather do it from a bridge across a deep canyon with raging rapids below because this is the image most readily available to them” in that when people come to forests for recreation, they seem to want to ‘get back’ to a particular kind of nature. Any human interventions in this perception of nature, then, must be made to look as if they belong ‘naturally’ in that environment and not clearly added at a later date. What the forest I am studying is, then, is a semi-natural environment, but one where the

modifications people have made are done in a way as to be in-keeping with a perception of nature and thus maintain the idea of the forest as an authentic space for recreational mobility in nature.

5.1.3 The forest as a space of heterogeneous mobilities and narratives

So far in this section I have talked about the potential for values conflict to occur between different stakeholders in forests. Now what I want to do is delve into the data and look at how, if at all, conflicts actually *do* occur in practice. Key in this is consideration of informal forest access, for it highlights the potential limitations of managerial solutions to environmental conflict. The reason I say this is that stakeholders whose conditions of access are not so strictly regulated (for instance walkers and mountain bikers) may move through the forest without spatial or temporal restriction and can thus come into contact with other stakeholders in situations where there is the potential for conflict. As forestry manager Alistair admits, many recreational forest users fall into the category of:

traditional, erm, forest recreation which has tended to be more towards informal, a quiet, passive, low impact walkers, erm, family kind of group or maybe two elderly folk with dogs. And that is still by far the largest sector of, of our involvement in forests

Bearing in mind that the ‘genuine’ environmental responsibility I am thinking about here entails responsibility to respect the values and beliefs of other humans using the same environment as well as respect for non-humans, understanding how informal access takers may come into conflict with other users in terms of values as well as space is therefore important. Sled dog racers Mike and Karen explain the problems they face taking their dogs to train in a relatively busy public forest:

Mike: We can only train at Tentsmuir in the morning and you have to be finished by nine, or an hour before dusk, it's early. Given, given that they're managing it a little bit that way, only by assuming that there's nobody in the forest that early or at that time of night and that's not the case

Karen: But woe, woe betide if you're caught on a rig. You can be in the forest after nine o'clock in the morning

Mike: But not running the dogs

Karen: But if you're on the rig, whoah. You know, and there's people, there's like you know there's people will walk their dogs there every day and if they see you pulling a rig they will be the first to report you

Whilst conflict or potential conflict I have looked at elsewhere¹⁰ can be managed by zoning or permit regulation, the sight of people riding metal rigs pulled by a team of dogs seems to jar with others' perception of the forest as a space where they can walk their dogs quietly and safely. The restriction imposed by the Forestry Commission on the sled dog racers in terms of time and place does go a little way to minimizing conflict by scheduling training when the forest is at its quietest, but as Karen's 'woe betide if you're caught on a rig' explains, this regulatory restriction does not eliminate the potential for values conflict with informal access takers. Deer stalker Brian gives an example of how different types of mobility and informal access can come up against one another, even if it is nobody's intention to cause confrontation or conflict:

I've turned up even early in the morning to a, a woodland area where I was supposed to be shooting some roe deer and there were about five or six cars there and I thought well, there's lots of dog walkers out so there's absolutely no point in carrying on, erm, and in future arrange to get there a bit earlier so you're out there before, before the dog walkers get there

Although there is no intention on the part of the dog walkers to prevent Brian from stalking deer, and no suggestions in the account that the walkers strongly object to what he is out to do, dog walkers taking informal access nonetheless remove the qualities of the forest environment that are valuable to Brian when he is deer

¹⁰ Interviews conducted for this project with Forestry Commission staff and recreation participants show that activities that are large-scale or can only take place with the explicit permission of the Forestry Commission tend to be confined to areas where there is virtually no chance of contact with other land users. For example, public access to forests is suspended if there is a car rally taking place, and mountain bikers are encouraged to make use of purpose-built facilities that keeps them out of other forests. Although this does not eliminate the possibility for conflict, the fact it is a controlled environment goes some way to minimising the potential for problems to occur.

stalking; namely, the tranquillity, stillness and lack of additional human or dog presence that are vital to allow him to get close enough to see and shoot the deer. This, then, is a situation where one kind of mobility regulated by permits and legislation can be disrupted by stakeholders using the forest informally for a different kind of recreational mobility, even though they may have no intention of causing disruption to other land users. What I am getting at here is that there is a heterogeneity of mobilities in the forest environment, some of which take place less formally than others and which may take place at the same time in ways which are perhaps not compatible with one another. The fact that some activities are more loosely regulated than others does not automatically mean there is less potential for conflict, so a truly 'genuine' conception of environmental responsibility needs to pay attention to how conflicts over value or access may occur with informal access takers as well as with those who have formal arrangements with landowners¹¹.

Taking seriously the different types of access and mobility stakeholders have is also crucial in forming what O'Neill, Holland and Light (2008) term the 'narrative trajectory of place'. Deliberations over what the most appropriate narrative trajectory is for a forest or rural environment need to take into account the narrative trajectories of recreational and professional, formal and informal access takers. This can be illustrated in practice, albeit at a large scale, with reference to the forests of Dumfries and Galloway. First of all, my field notes remark on the significance of this area to rally competitors:

Everyone seems to have a story to tell about Glentworth. Ask any driver what their top five favourite stages are, and at least one of them will involve the

¹¹ Following on from O'Neill (2007) and his ideas on care for the environment via proxy, I would contend that one can perhaps also think about environmental responsibility via proxy. What I mean by this is that whilst it is conceptually difficult for some stakeholders to think of acting responsibly towards the environment out of some kind of respect for the intrinsic value of nature, it may be easier for these stakeholders to act responsibly out of respect for the values and preferences of other human stakeholders. If the other stakeholders' values include respect for nature, then it is in the interests of groups such as rally drivers to act responsibly towards the environment out of respect for the values to the environment held by other groups they come into contact with. This is maybe not unproblematic, but at least is a shorter step to responsibility in the first instance than direct care for the environment.

Glentool complex. A famous driver called Drew Gallacher even had his ashes scattered here when he died...

Second, forest ranger Duncan tells the story of how the same part of Scotland became famous for mountain biking and for a particular kind of forest practice to encourage mountain bikers:

It was one of the old recreation rangers who had the idea to try and establish the area around Dumfries initially as a real kind of mountain biking hotspot [...] we had Seven Stanes phase one which was getting the initial trails on the ground. Phase two, which is just finished, was to finish the actual construction of the trails but also really start to develop the business links

Third, and alongside these ‘grander’ narratives of communities or organisations, is the experience of fourcross rider Dave and his friend when they turned up to ride informally in the Forest of Ae:

if we go up to Ae Forest and there's some bikers there, we can't get the bikes out of the car without being surrounded [...] it's great, because it feels, you really feel like, you don't feel like the odd one out in the way, you always feel like the novelty, you know, they all flock and go 'oh'!

Perhaps key to the narrative trajectory of the Dumfries and Galloway forests, then, is the idea that it is a space where different types of mobility can take place in close spatial and temporal proximity under the aim of consensus rather than conflict. This of course comes through in the interviews with Forestry Commission management staff, but accounts such as Dave's story of being included and feeling accepted are equally important in shaping narrative trajectory of place as they illustrate a different type of experience – an individual or small group activity based on informal access as opposed to, say, the formalised nature of rally driving. Again, this serves as a reminder that the experiences and values of non-participants in motor sport, and not only non-participants who access the forest under the same controlled conditions as motor sport participants, need to be respected and taken into account if a genuine and workable environmental responsibility is to emerge. The challenge that remains is of how to ensure these informal access takers are given adequate and appropriate

(Haggett, 2009) opportunities to add their narratives to the overarching narrative trajectory.

The final point I want to make about the forest as a space of mobility is that this mobility is not always equal. Some of these differences are of a very material and practical nature, whereas others are bound up with much broader ideas. Beginning with the most obvious, different mobilities take place at varying speeds. The fastest of the mobilities I look at would on first inspection seem to be rally driving, but as participant observation illustrated to me, in order for this very fast mobility to take place there must be long periods of stillness and many people and vehicles who are not moving. Included in this are among many others emergency vehicles at the start of each stage, teams of marshals, radio communications outfits, physical structures to keep the cars on course and block out other access takers, and an assemblage of vans, tools and mechanics to keep the car and its crew serviced over the course of the rally. This perfectly illustrates Sheller and Urry's (2006) view that in order for fast and convenient mobilities to occur in their 'new mobilities paradigm', vast systems of immobility must still be in place. Similarly, whereas activities such as field archery may appear to be slow-moving, often sedentary activities, there are still periods of intense energy and speed when arrows are fired (VIDEO CLIP 4). Sled dog racer Mike demonstrates further complexity by arguing that perception of speed may vary from observer to participant, pointing out that riding a dog sledding rig:

doesn't sound fast, but in that photograph of the two dogs going round the bend you're going upwards of fifteen miles an hours [...] [f]ifteen miles an hour doesn't sound like a lot when you're, but...

There are marked differences between the speeds at which recreational forest mobilities take place, then, but this does not necessarily mean significantly different embodied experiences will arise based solely on the perceived speed of the mobility in question. Within different activities, there are extensive systems of both mobility and immobility, time periods where participants and/or their equipment will be stationary and time periods where participants and/or their associated technologies will be moving at speed. It is thus important to think through how the different

speeds in each activity might shape particular embodied experiences and thus certain environmental values, in order to avoid making generalized assumptions about how participants in different mobilities sense the environment based on common perceptions about each kind of mobility. There may be occasions when rally crews are going slowly and have time to think about the aesthetic qualities of the landscape, for instance, and it is looking at the whole course of the rally and the ‘slowness’ necessary to facilitate periods of fast movement that can illuminate this.

5.1.4 The forest as a skilled landscape

I now want to discuss the idea of the forest as a skilled landscape. By ‘skilled landscape’, what I mean is something approximating Grasseni’s (2004) idea of skilled landscapes where the landscape is sensed in relation to the types of skilled practice that take place within it. Within this, I wish to explore the relationship between different understandings of the forest landscape; the heterogeneity of skilled mobilities; and the part technologies play in this skilled engagement within the environment.

A number of different knowledges come together to shape the ways in which stakeholders engaged with the natural environment, and different actors often draw on varying knowledges to justify their view of nature. For instance, forest recreation manager Alistair brings in more ‘scientific’ ideas of biology, slope dynamics and civil engineering when explaining how rally driving can damage a forest road:

If the road is thawed or is, er, there’s thawing conditions, in some instances we may not allow the rally to go ahead, because if it’s frost coming out of a water-bound road, makes it very vulnerable, very loose. There aren’t too many instances where we haven’t allowed rallies to go ahead but that would be one

Compare this to Steve’s explanation of how to plan a mountain bike trail in practice:

there’s definite theories, but you can break the rules, but you have to know where you can and where you can’t break the rules [...] So what makes a

good trail right from the first go, it, from the start is, get on your land and walk it, get to know where you're going to put it

The difference between these two accounts – both of which come from within the same organisation – is that Steve's view of how to act within the environment is a product of a combination of 'scientific' knowledge about slope properties and drainage on one hand, and more embodied knowledge of where these rules can be 'bent' on the other. Alistair's account, on the other hand, is based very much on an understanding of scientific facts about how the environment will behave in certain conditions, with management decisions such as the cancellation of a car rally grounded in these understandings of what will happen when certain forces are applied to the road. Landscape architect Simon offers some thoughts on how these different types of knowledge may be brought together:

What landscape architects can do is we can sort of zoom out, look at the landscape as a whole, look in the forest as a whole, build in that information that [foresters] provide, build in the information that, say, a hydrologist can provide on where the water table is where the water courses are, er, where ponding would occur, where mosses and bogs might be, build in what a biologist might provide on ecology. In other words you're taking a general element of all these specialisms and then bringing it together

The kind of process Simon describes here is one where the intimate, embodied knowledge (what Harper (1987) and Dant and Wheaton (2007) think of as knowledge gained through sustained practical engagement) of foresters can be taken in conjunction with broader scientific understandings of the environment such as hydrology and biology and used in combination with these scientific understandings in order to build a more situated account of the forest landscape (it is also worth pointing out that within this idea of 'science', there are heterogeneous knowledges – science is not one voice alone. Indeed, Simon takes great care to distinguish between the disciplines of hydrology and biology). I see this kind of consideration of the different knowledges of the environment as being important to the kind of work I do, for it recognizes the situated, embodied knowledges that different stakeholders base their world views on but also acknowledges the materiality of environmental damage by remembering how environments may be physically damaged by some activities.

By thinking carefully about how embodied experiences shape the ways stakeholders come to value the environment and reason how to act appropriately, and also what more scientific ideas can tell us about how the environment might respond to human behaviour, it is possible to work towards what Midgley (1989) would term the ‘right’ use of knowledge. That is, argues Midgley, treating knowledge as a whole in order to develop an understanding of a problem or phenomenon. In the context of a forest landscape, that may mean – as Simon is doing – synchronizing different knowledges in order to square the interests and values of different stakeholders, thereby developing an understanding of how the forest can function sustainably in practice.

Closely related to this is the idea of responsibility within a skilled landscape. The links between skill and responsibility appear in a number of contexts, and suggest that with skilled mobility comes a certain degree of responsibility, both to other humans and the natural environment. Deer stalker Brian qualifies his statement that “stalkers are responsible” thus:

so you need to be able to handle a gun safely, shoot it competently, recognize deer, know about the biology of deer, and also know aspects of the law relating to access and all these things as well. So it isn't something that you can just go into a shop and buy a gun and go, go and shoot a deer, you need to know what you're doing

Participation in the skilled forest movement of deer stalking is therefore something that is accompanied by a high level of responsibility, both legally in terms of possessing firearms certificates and more holistically in terms of knowledge of deer behaviour. Similarly, in the context of rally driving environmental scrutineer Geoff explains that all competing cars were required by regulation to carry environmental ‘spill kits’ (kits containing cloths and sponges to clear up fluid spills) and that crews also have a moral responsibility to tend to any fluid spillages from their vehicles over the course of the rally. With skilled mobilities, there perhaps comes a certain degree of responsibility for the participants in these kinds of mobility to act in a manner that is respectful to other humans and the environments they are moving within. Part of being a skilled practitioner is maybe to have an understanding of the kind of

environment one is engaging with, and also of the ways in which one's activity could have negative effects on other stakeholders or the environment itself. Within the skilled forest landscape, then, there is perhaps a certain level of environmental responsibility that arises out of the skilled nature of the forest dwellers' mobility.

What these preceding points about the heterogeneity of skilled mobilities in the Scottish forest illustrate is that the kind of movement practitioners of skilled mobility have is the product of a lengthy and sustained engagement with the environment in a certain way. Dant and Wheaton (2007) demonstrate this outside of the forest with a discussion on windsurfing, where they argue that sports that involve manoeuvring a large piece of equipment such as a sailboard must be learnt consciously and intentionally over a long period of time. I would argue that this can equally be applied to many different kinds of recreational mobility that take place in Scottish forests, including some of those that do not require moving a large piece of equipment. The accounts of field archers, dog sledders, downhill mountain bikers, deer stalkers and, of course, rally competitors all contain a narrative of learning to move through the environment in a particular way through a lengthy, conscious and sustained engagement with a certain type of mobility. As to why the idea of the forest as a landscape of skilled mobilities is important, it serves as a reminder that the type of mobility many stakeholders have in the forest environment – and thus the nature of values that may be shaped as they move or remain stationary – is the product of a lengthy and sustained engagement, during which time ideas about what is appropriate behaviour within and towards the natural environment can be shaped. In terms of understanding why people may persist in environmentally destructive practices or how these practices may be altered, it is thus worthwhile taking seriously how skilled mobilities are learned over time and what values this shapes.

The final point to make here is about the technologies in the forest landscape, that is, the concept of the forest as a skilled landscape of technology. The idea of the forest as a semi-natural environment has already been discussed at length, so here I want to briefly say something about the kinds of technologies – in particular machines – that move about in forests. Participant observation in several forests highlighted the

number of machines that can be found in the forest, both for timber extraction and recreational purposes, examples of which can be seen in Figure 5.2 and in VIDEO CLIP 5. I do not wish to say too much here about how technology may mediate different stakeholders' experience of the environment in different ways – this will be a subject for discussion in a subsequent chapter – except the very simple point that skilled forest mobilities in the forest are often carried out on or in various kinds of machines. These machines have the potential to shape the kind of engagement with the environment their owners have in complex ways, and as the example of field archery shows, even a type of recreation that draws on seemingly 'limited' and 'basic' technology can have profound impacts on how humans engage with the environment.

Figure 5.2 – machinery for timber extraction and forest maintenance spotted during participant observation.



Source: photos by author.

I also raise the point about forests as a landscape of technology to add a rejoinder to von Bonsdorff (1999) on effects technology can have. Von Bonsdorff (1999:160) claims that affirming technology can lead to “repressing natural time, concrete place and the complicated mess of our historical and personal worlds”, as if the presence or mediation of technology somehow makes humans' embodied experience with the natural environment automatically less valuable. I do not disagree that the presence of technology alters the nature of engagement, but I would argue that to dismiss the role of technologies in mediating the 'natural' experience offhand as a negative thing overlooks the heterogeneity of technological mediation and also runs the risk of

alienating those such as fourcross rider Dave whose engagement with the forest is in fact facilitated through some degree of technology.

5.1.5 Conclusion

In this section I have argued that paying close attention to how the forest is developed and how different stakeholders move within it is vital, so that analysis of how stakeholders value the environment and justify their actions are based on a reasonably accurate understanding of what 'the environment' is. I started by discussing the nature of the built forest environment, by which I mean the way the forest is modified by humans. When doing this I paid particular attention to the way different stakeholders valued different topographical features in the forest, suggesting that different valuations of the same physical features could give rise to values conflict. In turn, I also talked about how certain kinds of behaviour come to be seen as 'appropriate' for the forest.

I then went on to think about the heterogeneity of mobilities that take place in the forest, and the importance of taking into account the narrative trajectories of all access takers if sustainable outcomes are to be reached. I focused in particular on the challenge of including the values of informal access takers who may not otherwise be included in formalised deliberation processes. In relation to this, I noted the differences between and within different mobilities, suggesting that close and sustained engagement was necessary in order to understand how precisely the natural environment is experienced by different access takers.

Finally, I explored the idea of the forest as a skilled landscape. In doing this, I illustrated the practical role of embodied experience in shaping understandings of the forest environment. I also considered the links between skill and responsibility, suggesting that the lengthy and sustained engagement many stakeholders have with the environment while they learn their practice could be a useful stage for shaping ideas about how to treat the environment appropriately.

5.2 Rally driving: how is the environment experienced?

5.2.1 Introduction

When talking about environmental responsibility in a rally driving context, I believe it is important to get clear what rally participants mean when they refer to ‘the environment’. After Lynch (2008), I am of the view that it is possible for different world views to be existing simultaneously in ways that may not necessarily be commensurable with one another, thus a key challenge is to think through precisely what is meant when different stakeholders speak of ‘the environment’. Furthermore, just as Rawles (1995) suggests that it is important to experience natural environments first-hand when forming environmental values so that our values are not based on a false conception of what a natural environment is, so I would contest that it is vital to pay attention to the environmental experiences of others so that we do not evaluate their practices in light of a false conception of what they deem ‘the environment’ to be.

A ‘genuine’ responsibility towards the environment, as I have argued, also entails responsiveness to the values of other people using the natural environment, which is why a sizeable proportion of the data I draw on is from non-participants in motor sport. In this sub-section, however, I want to focus on the way the natural environment is experienced by rally crews. Video recordings of nine different crews driving through a range of special stages are analysed in order to consider how the environment is sensed and discussed as the driver and co-driver make their way through the environment. In Section 5.3 I talk more broadly about the way the environment is experienced by other stakeholders.

The analysis of the video data in this section is broken down into several themes. *Senses* argues that rally driving is a multi-sensual experience, drawing on sound and touch as much as sight. *Responsibility* highlights the individual duties that each crew member must fulfil, showing the division of duties between driver and co-driver for the safe and speedy passage of the car through the stage. *Driving as a shared task*

explores Watson's (1999) idea of the driving of vehicles as a task that involves passengers as well as drivers, exploring how the navigator tells the driver when to operate certain devices and also how they ought to control the car in particular situations. Under *temporality*, I challenge the idea of automobility as an atemporal experience is challenged by referring to the use of both past and future actions and narratives in the videos studied. Finally, *relationships to non-humans* considers the relationship of the crew to their car and to the natural environment. The idea of a straight car-driver hybrid is problematised as several examples showing different relationships between the driver and vehicle are examined.

Although the key aim of this section is to shape an understanding of how the environment is experienced and valued by rally crews, where appropriate I draw links to the broader themes of my work – in particular, multisensual engagement with nature, notions of responsibility, and differing views of nature held by rally crews. In doing this, I am not trying to claim that participants in motorized recreation are environmentally responsible citizens. Rather, I am merely suggesting that many of the skill sets and values desirable for a sustainable environmental ethic are also required to drive a car skilfully and responsibly, and thus that the jump to a more responsible form of environmental behaviour for rally driving participants might not be as great as one may assume.

5.2.2 Senses

One of the overarching themes emerging from all of the transcripts I looked at was the multisensual nature of the rally driving experience. This came through in both the co-drivers' descriptions and the drivers' occasional comments on the road conditions, where emphasis was placed on the aural and haptic dimensions of the landscape as well as the visual aspects of automobility privileged by Urry (1999). This is aptly illustrated in the instructions of Patrick to Rory (VIDEO CLIP 6):

P: Keep her going now you're going well just keep her going and listen. One fifty fast medium right in continues to fast medium right

In this extract, greater emphasis seems to be placed on the importance of listening than any other sense – that is, key to successful passage through the stage is the ability of the driver not merely to judge the corners based on his or her sight, but to listen to the commands of the co-driver. Looking at this extract in isolation, there is possible ambiguity in Patrick’s command ‘listen’, for it could refer to listening to a number of things – the co-driver’s voice, the car’s engine, the sound of rocks on the road. Having heard during participant observation numerous times that the cause of a crash was that the driver ‘wasn’t listening’ to the navigator, though, it is very likely the case that Patrick is reminding Rory of the importance of listening to the route notes so as not to have an accident through complacency or over-confidence.

The importance of hearing to successful and swift passage through the stage is emphasised when Lee and Scott’s intercom (necessary due to the overwhelming engine noise of a rally car) starts to break down during a competitive section (Figure 5.3 and VIDEO CLIP 7):

S: (hh) RIGHT THREE HAIRPIN LEFT PLUS >CAN YOU HEAR ME<

L: No [only odd notes]

[((P points left three times with right hand))]

S: Hairpin left plus (.) hairp- (.) hairpin left plus (hh) and turn left one

The importance of the co-driver’s instructions to the driver’s speed means co-driver Lee is first forced to shout and then, when it becomes apparent shouting is unsuccessful, resort to hand signals in order to deliver the information to Scott (see Figure 5.3). What stands out as particularly interesting to me in this is that shouting is seen as preferable to the use of visual hand signals.

Figure 5.3 – can you hear me?

Scott resorts to hand signals when it becomes apparent Lee cannot hear him.



Whilst this may be due to the more precise and familiar nature of oral instructions, it also suggests that the audial is of at least equal importance to the visual in the rallying interaction with the environment. This is well illustrated when Finlay and David have to tackle thick clouds of dust on a summer event (Figure 5.4 and VIDEO CLIP 8):

D: Flat left three one hundred (.) left one (.) one hundred (.) care left nine >culvert inside< (2.0)

((Car enters thick belt of dust, visibility reduced to 10 metres))

F: (looking to inside of corner) Where is it where is it

D: Flat right one keep left over crest and right two in

Even though heavy dust raised by a preceding car obscures the crew's visibility of the corner, the instructions of the co-driver allow rapid progress to be made. In particular, as the driver has been alerted to the presence of a ditch on the inside of the corner, he is able to position the car accordingly before reaching the bend, moving forwards whilst watching out for the hazard. This example, where the role of sight is greatly reduced due to an external factor, illustrates the importance of sound when moving within the rally driving landscape. Also, it is worth reiterating at this stage

that the cars are travelling at considerable speed (often in excess of 70mph on narrow forest tracks no more than two car widths across), so the driver must respond *very* quickly to any commands from the co-driver if an accident is to be avoided.

Figure 5.4 – where is it?

Despite not being able to see, Finlay is able to position the car and look out for the hazard whilst making progress.



Also featuring in the rallying experience of the environment is the haptic. Although this is hard to get at through video recordings, it does feature occasionally in the discussions between the crews in as much as it is a factor that can hinder safe and speedy progress. This can be seen in the case of Ruaridh and Susie (VIDEO CLIP 9):

```
S: Danger <long right> and >loose left four logs  
outside< danger <long right> and loose left four i:n  
logs your side (.) on exit
```

Here, the warning 'loose left' refers to the presence of unbound, or 'loose', fragments of gravel on the entrance to the corner that may cause the car to slide off the road if approached with too much speed. The dry weather on the day of this rally and the nature of the forest roads means that all the gravel will be 'loose', however

with logs on the outside of the bend that could cause a serious accident if the car collided with them, Susie reiterates the loose nature of the road surface. In this manner, the nature of the sensuous surface of the road is of great importance to the crew in driving safely (it is also interesting to note that the penalty for falling foul of the loose gravel – crashing into a pile of logs - is made explicit in Susie’s instructions with the description ‘logs outside’).

The issue of value and preference comes into this discussion of surface, with ‘rougher’ textures discussed as being undesirable (Figure 5.5 and VIDEO CLIP 10):

P: Forty (.) square left into middle over crest go
one hundred and seventy >this is the bad rough bit
down here now one seventy< (.) to the bad dum- bump
dip two hundred

Informal conversations carried out during participant observation explained that the reason for this negativity towards rougher sections was the potential for puncturing tyres or damaging the car, hence the importance of flagging up these rougher sections so that the driver may take more care to avoid damaging the vehicle. In the instances where the sensuous surface of the road was mentioned in the transcripts, it was almost exclusively raised as a hazard or feature to be negotiated with care rather than something that could help the driver to go faster.

Figure 5.5 – this is the bad bit...

The loose stones and rough surface lead to the road being designated as ‘bad’.



Nevertheless, the rally competitor does experience a number of very strong forces over the course of an event, even though this remains largely unspoken in the in-car interaction. One reason the theme of touch does not feature as prominently as that of sound may be that over time, the rally competitor learns to ignore the sharp and often violent movements of a car at speed on a rough road. By looking at the novice crew of Danny and Niall, however, it is possible to get an insight into how shocking these forces can be when experienced for the first time (VIDEO CLIP 11):

((car traverses rough section of gravel))
N: °S**t°
[...]
((car traverses another rough section of gravel))
N: F***ING HELL
[...]
N: crest right two in left two in over jump sixty
(.)
((car leaves the ground briefly going over jump))
N: Oh my god whayhey. S**t >hold on=hold on a sec<

As suggested by Law and Lynch (1988), considering the practice of a novice and associated pauses can be a useful way of gaining analytical purchase. In the case of Danny and Niall, as seen in the extract ‘hold on a sec’ Niall’s surprise at the force with which the car takes off over the ‘jump’ and subsequently hits the ground causes him to momentarily lose his place in the route notes. Furthermore, the stream of profanities serves to further illustrate how unnatural the forces experienced or the treatment of the car may seem to a rallying novice. In terms of the significance of this for my overall research aims, what is important to note is that the haptic aspects of the driving and navigating experience may feature less in the accounts of more experienced competitors than those of novices as one becomes more attuned to these forces over time. Similarly, it is important to register that for the novice, the nature of these forces has a much greater bearing on the nature of interaction within the environment – they cause Niall to lose his place in the notes and this slows Danny’s

progress whilst order is restored – than it may have for the more experienced competitors.

5.2.3 Responsibility

Another key theme that emerged from my analysis of the transcripts was the responsibility of the co-driver to keep the driver focused and alert him or her to even the most seemingly obvious hazards. On the event Jordan and Graeme are contesting, crews receive a time penalty for hitting the cones used to construct chicanes in the forest. Both driver and co-driver are made aware of this prior to the start of the rally, however Graeme reiterates this while they are driving (VIDEO CLIP 12):

G: (hh) Flat one right over crest <eighty> flat one right over crest one hundred one right (hh) to immediate chicane (hh)

J: ((sighs))=

G: =Penalties (.) left entry (2.5) (hh) fifty (3.0) to small crest and three left (hh) chicane right entry (.) penalties

J: (hh) °yes yes° (3.0)

Whilst Jordan's frustration at being reminded of the chicanes and associated time penalties is clear from his sighing and muttering, I noticed that the more experienced of the co-drivers I observed placed greater emphasis on reiterating these seemingly very basic elements of driving. Less experienced navigators, such as Niall, tend to focus more on following the route notes without losing their place in relation to the rapidly-passing scenery, whereas more experienced co-drivers are able to add further annotations to their notes as less effort is required to keep the route notes and the car's place on the road matched up. As a former co-driver explained to me while travelling to a rally during the participant observation stage of fieldwork:

being a responsible passenger is a bit like being on a yacht. When you go on one of these big yachts they always tell you to shout if you see a rock ahead and not to assume the captain has seen it just because he's at the wheel...

I will discuss this point in more depth in the subsequent section on driving as a shared task (after Watson, 1999), but for now it is important to register that paying attention to even the most elementary of tasks and ensuring the other crew member is doing this correctly is a vital part of being a responsible rally crew member. This responsibility also extends to keeping the driver calm when trouble strikes, as when Anthony and Luke get stuck behind a slower car mid-stage (Figure 5.6 and VIDEO CLIP 13):

A: COME ON

L: °Right° just careful careful °rr° right three

...

A: F**k's sake ((thumps steering wheel with right fist))

((car in front pulls over into layby on left))

L: >Yeah he's letting well he's lett-< yep it's alright (.) right left th- watch the gravel watch the gravel.

Despite the crew's shared frustration at their progress being hindered by a slower car in front, Luke is careful to retain his composure and remain calm, avoiding raising his voice or making gestures in the way the driver is. The repetition of phrases such as 'careful' and 'watch the gravel' illustrates how important the task of keeping the driver calm in this situation is, and by continuing to read out the route notes even though the car is not going fast enough for them to be of use to the driver Luke may be signalling that he is remaining 'on task.'

Figure 5.6 – careful, careful!

Luke remains on task and calms Anthony down despite his initial frustration.



The responsibility to keep the driver ‘under control’ is equally applicable to curbing exuberant driving, as Patrick does with Rory (Figure 5.7 and VIDEO CLIP 14):

P: >Square left now< into hairpin right it tightens
(.)and going down (.)

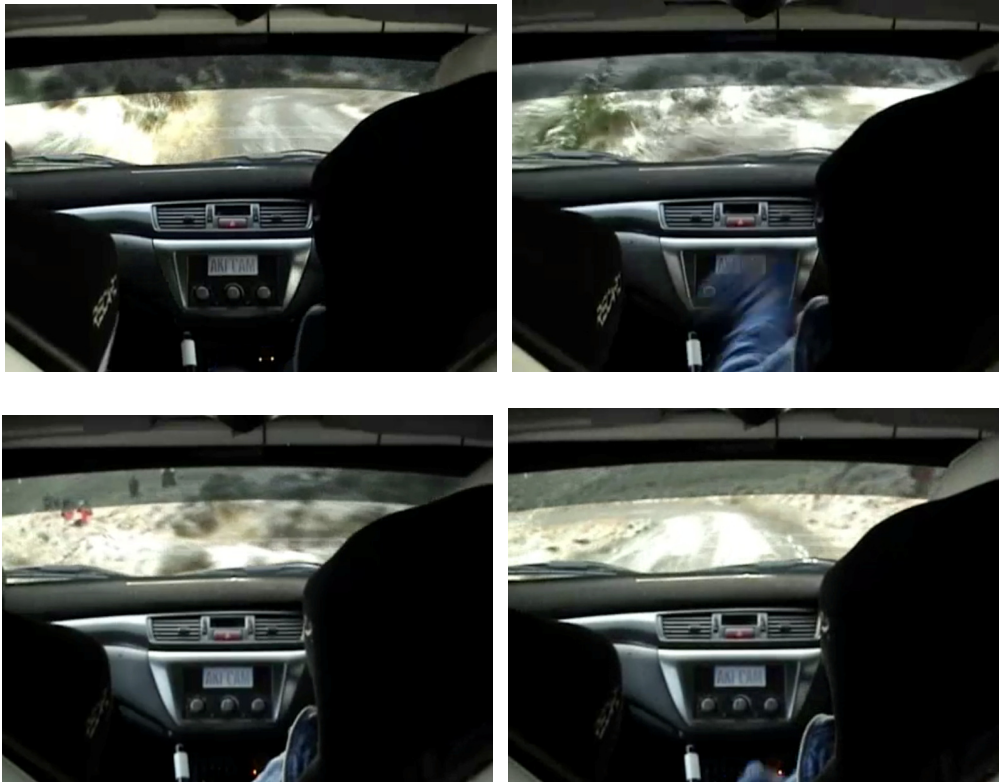
((R pulls on handbrake. Car veers right so that
wheels are pointing perpendicular to road before
sliding back to direction of travel))

P: Square left long

P: (hh) Square left lo(h)ng logs on the exit >tidy up now don't be f**king around<. Good man one hundred and fifty

Figure 5.7 – tidy up now...good man.

Patrick berates Rory for over-exuberant driving near the end of the rally.



Again, this dovetails with the observations on forest driving as a shared task (Watson, 1999), but the context of this episode makes it worthwhile discussing here. This is the final stage of a long (60 mile) event, and if Rory and Patrick negotiate the remainder of the stage successfully they are guaranteed an extremely strong result. Although the crew have contested many events together before to great success, and although Patrick knows Rory is a much more skilled driver than he is, as part of Patrick's responsibility to ensure Rory reaches the end of the rally it is his duty to tell the driver off for unnecessarily skidding the car. Nonetheless, the utterance 'good man' once the command to 'tidy up' has been obeyed suggests that a combination of encouragement and discipline makes this a successful driver-navigator relationship.

5.2.4 Driving as a shared task

As I alluded to several times in the previous section, driving a rally car is something of a shared task. It is important to register, however, that all of the controls for the vehicle are operated exclusively by the driver¹². When I talk about driving as a shared task, then, what I mean is that decisions over where to brake and accelerate and how to position the car on the road are worked through between the driver and the co-driver. On the tarmac road they are rallying along, selecting the correct braking point is of great importance for Anthony and Luke (VIDEO CLIP 15):

```
L: Six hundred. Just before sign small crest fifty  
narrow left seven <don't leave it too la:te> (.) and  
turn hairpin right. >Neat and tidy neat and tidy<
```

This, coupled with Luke's comment "get your braking" earlier on in the same stage, demonstrates the role the co-driver has to play in indicating to the driver when to press the brake pedal. In both cases, in much the same way as the earlier extracts on responsibility, the co-driver's job is to ensure the driver does not brake closer to the corner in an attempt to save time, as this runs the risk of the brakes locking or the car carrying too much speed into the bend – both situations that may well lead to a crash. Interestingly, the word 'brake' is not mentioned anywhere in the above extract, rather the warning to brake early comes simply as "don't leave it too late". Linking back to the points I made about my relationship to the research and analytical purchase in Section 4.2, it is also interesting to note that I know to interpret Luke's comment as referring to braking early. Whilst a key part of being a 'responsible' co-driver is to draw attention to some of the most fundamental aspects of driving, then, there are still some commands that the driver and co-driver can understand to relate to particular actions without explicit instruction. This is perhaps better illustrated with Danny and Niall (VIDEO CLIP 16):

¹²Except in extreme situations such as very tight corners where the co-driver may be required to pull on the handbrake or change gear in order to allow the driver to use both hands to turn the steering wheel for extra strength.

N: <right thre:e> (2.0) a:nd left three over crest
and (.) dip tightens to left nine (2.5)

N: sixty up (*ahem*) (1.5) °boot it then°

The command ‘boot it’ in this context is an instruction for the driver to press the accelerator pedal quickly and strongly, but as with the extract from Anthony and Luke discussed above the action is referred to simply as ‘it’. There is therefore perhaps some kind of shared understanding between the driver and co-driver as regards what must be done in a particular situation, in that the action the driver has to carry out can be left unsaid by the crew members and discussed only in the abstract. This shared understanding exists despite differences in identity between the ‘driver’ and the ‘co-driver’, and stands as a fine example of the challenge of getting under what is left unsaid in any context and understanding what this might say about the world views of those involved.

Further, the relationship between Danny and Niall is different to the one between Anthony and Luke. Whereas Anthony and Luke are both experienced competitors, Anthony specialising as a driver and Luke as a navigator, Danny and Niall were both relative novices at the time of this event. As suggested by the long pause after the description of the corner, Niall is perhaps a little frustrated at Danny’s speed and feels the car may already be in a suitable position from which to exit the corner, as signified by the suggestion “boot it then”. In other words, whereas Luke’s commands hint at responsibility by warning the driver of actions to take place in the very near future – for instance telling Andy not to wait too long before braking – Niall provides an evaluation in the present of Danny’s driving by hinting, as seen through the somewhat impatient “boot it then”, that the driver could be going a little faster.

Evaluations of actions are not necessarily absent from the interactions of more experienced crews, nor are they necessarily always negative. Consider Jordan’s evaluation of his own driving (Figure 5.8 and VIDEO CLIP 17):

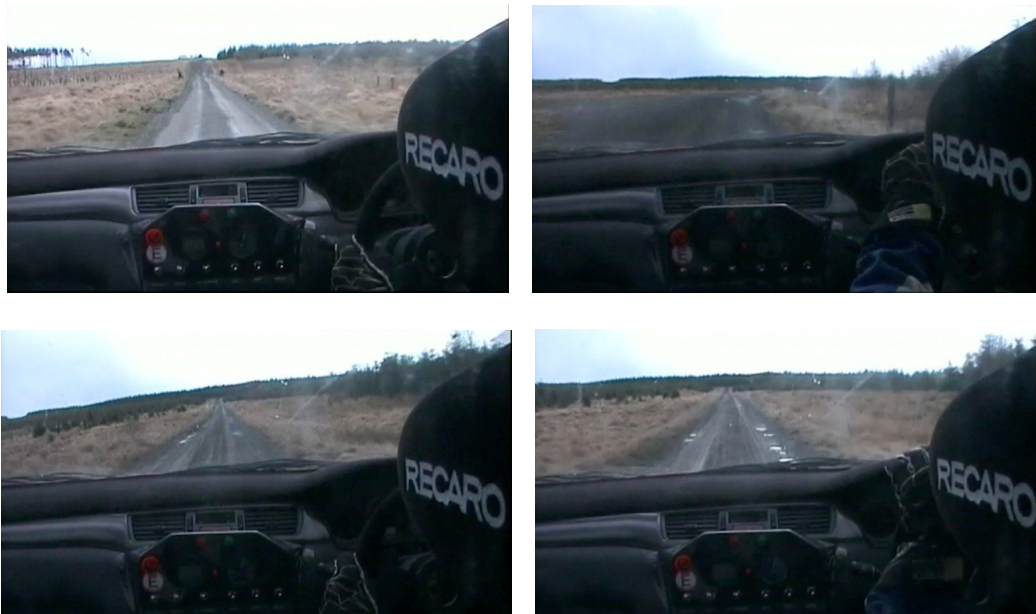
G: Flat two right over crest a:nd flat one right in
over crest eight hundred (4.0) (hh)

J: That wis flat aye and ah just thought ((points to road ahead)) the=way it was going

What has happened here is that Graeme has called a blind corner as ‘flat’, meaning that even though the driver cannot see where the road is heading, it was determined on a previous reconnaissance run that the corner could be taken without lifting off the accelerator. Jordan, however, slows down slightly and loses time as a result. He realises immediately that he has made an error of judgment, explaining through “ah just thought” that he followed his own instincts.

Figure 5.8 – that wis flat aye and ah just thought...

Jordan slows down for the corner, then realises he could have driven faster.



Compare this to Rory and Patrick tackling the same section (VIDEO CLIP 18):

P: And fast left go ahead two fifty (.) long very fast right in tightens at the <layby> repeat long very fast right in tightens at the layby then carry your speed six hundred. Tightens when you see the layby >go ahead six hundred good man<

What happens here, by contrast, is that Patrick provides instruction to Rory on how he ought to drive through the upcoming corner. His instructions are more specific

than Graeme's descriptive 'flat', instead telling Rory where the bend will become more treacherous ('tightens at the layby') and how exactly he should be controlling the car ('carry your speed'). This is followed again by the evaluative 'good man', complimenting Rory on following the instructions and therefore having saved time.

In these two extracts, the idea of trust comes through – prior to this event, Jordan had only contested a handful of rallies with Graeme, whereas Rory and Patrick had competed together for several years. I am not trying to say here that there is 'more' trust between one crew than the other, rather what I am getting at is that over time, the language used to allow driving as a shared task to take place may become more nuanced. This in turn could allow more subtle commands on vehicle control to be imparted to the driver from the co-driver and thus higher speeds to be attained. This idea of interpersonal relationships in driving as a shared task comes through even more strongly when Lee and Scott try to tackle a problem 'on the move' (VIDEO CLIP 19):

S: r=left hairpin left plus (hh) (.) I'm t-

L: Right tidy back up again let's get the notes back together

S: Well done well done. Right six opens to keep [in]

Owing to technical issues with the in-car intercom, Scott seems to have become a little flustered and as such does not appear to be delivering the corner descriptions to the driver as fluently as he normally does. This makes it much harder for Lee to be able to drive as fast as possible, however he does not apportion blame to either Scott or the car's electrical systems for this problem. Instead, he views the challenge of resolving the issue as a shared task, as seen in 'let's get the notes back together', as if matching the route notes up to the actual topographical features the car is driving over is a job both crew members must work on together. This parallels the situations discussed earlier where the co-driver offers the driver instruction on how to control the car, again with the overarching aim of passing through the stage as quickly and safely as possible. In much the same way as part of the task of 'driving' involves the co-driver issuing commands about when to brake and how to control the car, the task

of ‘navigating’ can here be seen to require the driver to help the co-driver deliver the correct instructions at the right time. Just as driving can be seen as a shared task, then, so can navigating through the rallying environment.

5.2.5 Time and temporality

One of the initial critiques of automobility centred around the notion that it is something that takes place in a decontextualised vacuum (see Urry, 2004; Bull, 2004), in something Augé (1995) might term a non-place. In many of the rally driving transcripts, however, there is evidence of the landscape being evaluated with reference to some conception of time. This is more often than not for the purposes of urging caution on the part of the driver by referring back to earlier indiscretions. The most obvious example of this occurs in Rory and Patrick’s stage (VIDEO CLIP 20):

P: (hh) Left entry chicane mega careful on this one
we’d trouble the last time left entry chicane mind
it on my side now mega careful

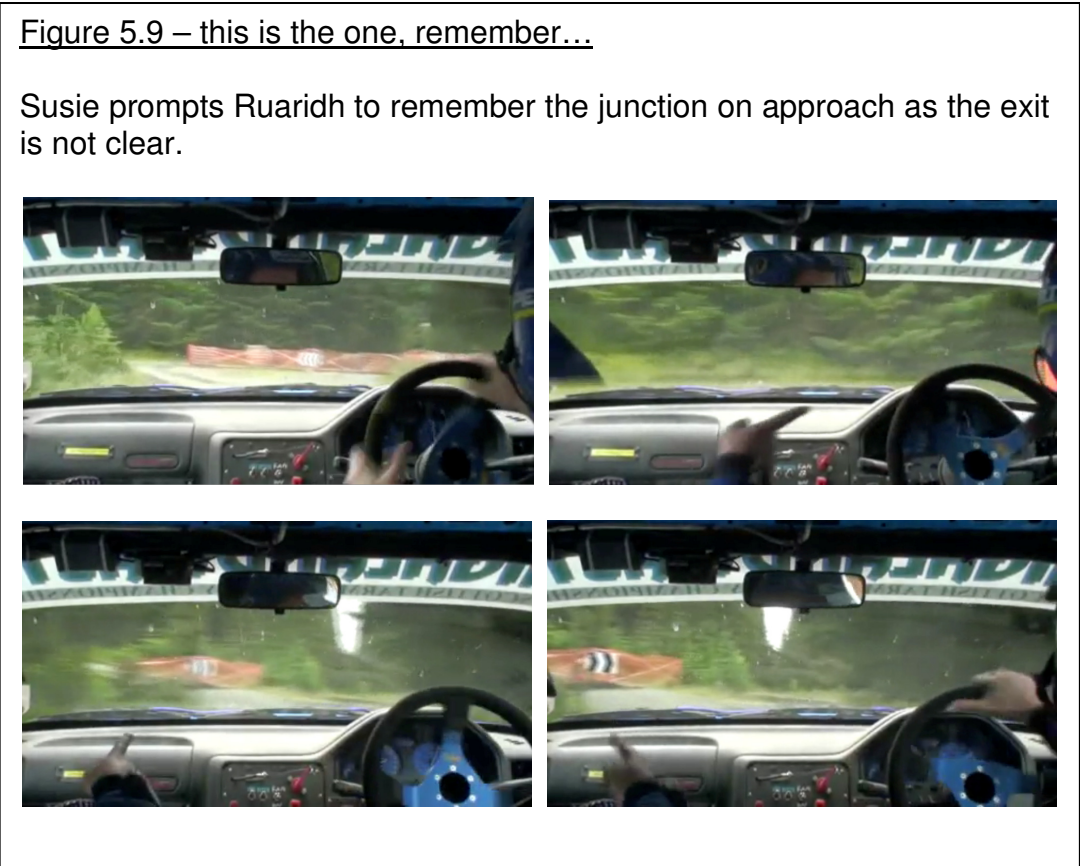
‘We’d trouble the last time’ gives a clear reason for exercising caution, referring explicitly back to ‘trouble’ – perhaps a collision with an object or a poorly-executed cornering manoeuvre – that slowed the crew’s progress on the same stretch of road earlier in the day. By evaluating a past event in light of the current situation, the co-driver’s aim appears to be to encourage the driver to slow down and exercise greater caution, so that the negative outcomes from the previous attempt may be avoided. As well as highlighting past troubles, allusions to memories are also used to contextualise upcoming sections of route, thereby allowing a more refined – and thus faster - approach to the corner to be made. Ruaridh and Susie draw on this technique at a complicated junction (Figure 5.9 and VIDEO CLIP 21):

S: and caution immediate double chicane left entry.
This is the one you go over the road

(S points to left)

S: <immediate °my side°> (2.0) Going right (.)

Through ‘this is the one’, Susie invites Ruaridh to remember the characteristics of the junction, either from a previous event or from a reconnaissance video. In doing so, the aim is to make the intended exit point clearer to Ruaridh (the junction is rather complicated with a number of possible exits that are not clearly blocked off) and reduce confusion that could cost the crew time. In this case, Ruaridh and Susie are drawing on direct previous experience of the landscape to shape their actions, however this context can also be provided by broader relationships.



At this juncture I wish to say something about the conception of time in the rallying world view and how it relates to environmental issues. Time in this world view seems to be both something constant and chronological as well as what Ricoeur (1983) might term time that can be ‘reckoned with’. On one hand, crews’ performances are measured against some seemingly objective, external timing device, with success or failure ultimately determined by the time a crew takes to drive through all the special stages. These times are demarcated by laser timing beams at the start and end of each stage that mark exactly when the car has entered

and exited the competitive sections, and all timing devices are set by event officials to BBC time before the start of the rally. A key component of the rallying world view is therefore the centrality of some seemingly objective, external measuring device to things that are 'successful' or 'unsuccessful'. When it comes to shaping ideas of respect or responsibility towards nature, it is perhaps important to bear this burden of calculation or proof in mind, in that if more responsible behaviour towards the environment is to be fostered, then there maybe has to be some clear 'audit trail' that allows rally competitors to directly gauge how their actions affect the environment. Indeed, in Chapters 6 and 7 I talk about how this desire for an 'audit trail' permeated through the participatory project deliberations.

On the other hand, whilst 'objective' time is a key component of the rallying world view, time can still be reckoned with in a number of ways inside the car. As the previous extracts have shown, the various strategies of sharing the tasks of driving and navigation and providing supplementary route information serve to 'save' time by allowing the driver to better understand the nature of the next section of route and thus proceed more quickly. In order to do this, the past is drawn into the present through reference to previous movements in the same landscape or the movements and actions of others. To add an additional layer of complexity to this, the descriptions given by the co-driver also invariably refer to events that will take place in the (very) near future, thus the 'present' within the rally car as it moves in the landscape is made up of a combination of conjectures about future actions, evaluations of past actions, and the constant ticking of the stage timing devices in the present.

As to how this relates to environmental issues, it helps to move this kind of automobility away from the idea that car driving takes place in a decontextualised vacuum. The past, present and future are all imagined in an ideal trajectory of the crew's travel through the landscape, where they use the knowledges of specific locations gained from past experience to ensure safe and swift travel in the present. All this while, they are working towards the future goal of reaching the end of the stage, rally or championship as fast as they can without making mistakes. There is

nothing explicitly environmental about this, except that it does show how past embodied experiences of place can help to shape different behaviours in the present or future and also mirrors the idea of a narrative trajectory over time. I want to lay the groundwork here for this idea of rally participants being part of an embodied experience of the landscape that extends over time. In the next chapter I will delve into participants' narratives to probe in more depth the ways in which memory and emotion is invested in place, and will take this further to discuss how this could shape an ethic of respect for nature.

5.2.6 Relationships with non-humans

So far my discussion has focused mainly on the relationships between the drivers and co-drivers, and how they work together to negotiate the environment. Now, however, I want to think a little more about the relationships between the crew, their vehicles and the natural environments they are moving within. In the main, the crew members only discuss the car if some sort of problem that affects performance arises, as shown by Jordan and Graeme (Figure 5.10 and VIDEO CLIP 22):

((J pulls on handbrake. Car oversteers and hits verge to the right of the road before bouncing back on track))

J: OH-

G: °Jesus°=

J: =This car's no handlin right at all

G: Slippy five left i:n (.) slippy five left in then two hundred and <fifty> (3.0)

J: Aye it's just no handlin right

Figure 5.10 – this car's no handlin' right.

An unexpected response leads Jordan to believe his car has a problem.



Shortly after the start of the stage, it becomes apparent to Jordan that his vehicle is not performing in the way in which he expects. He seems to realise this when he tries to set the car up for a corner in the way he has done earlier in the day, only to face unexpected consequences. Jordan's suspicions seem to be confirmed after the next bend, when again the car does not function in the way he believes it will. Rather than being able to offer a reason for this, though, Jordan simply states that 'it's just no handlin' right', suggesting that whilst his mechanical knowledge is not refined enough to be able to define precisely what the problem is, the driver is nonetheless able to sense that there is some kind of technical problem with the vehicle. This is based on his experiences of the car from earlier in the day, in particular the fact that it no longer responds in the way it did previously.

In the above, it is also interesting to note that Graeme does not become drawn into Jordan's discussion on the handling dynamics of the car, instead focusing on the job of delivering the route notes to his colleague. This perhaps ties in well to the issue of responsibility and the role of the co-driver in ensuring the driver remains focused on

the immediate task of guiding the car through the stage. Further, Jordan appears to ascribe a limited amount of agency to the car, observing ‘(t)his car’s no handlin right’ as if the car was handling itself rather than being handled by its crew members. A similar situation arises on the same event with Rory and Patrick (VIDEO CLIP 23):

P: Half a mile to go (.)

((R pulls on handbrake))

R: Get in ya b**ch (2.0)

P: Good skills four hundred and fifty

Here, Rory follows his action of pulling on the handbrake (a technique that locks the rear wheels, allowing the car to pivot round tight corners) with a stern command to his car. Coarse language aside, Rory follows up on Patrick’s command to him by issuing his own command to the vehicle, implying again that the car has some sort of agency in deciding which route it will take round the corner. The gendering of the car is also of note here, and is a recurring theme in Patrick’s dialogue with frequent instructions to ‘keep her going’ and ‘set her up and go’. Although I am aware of the possible critiques of masculinist automobile cultures this opens up, it is important to register that this does not appear in any of the other transcripts I studied – indeed, reference to the car as a neuter object was much more common. What did arise elsewhere, though, were examples of Urry’s (1999) car-driver hybrid. Danny and Niall (VIDEO CLIP 24):

N: Caution right one keep left over crest long right
three keep in

D: Think I’ve got a puncture

N: Have you?

Whereas the previous two examples implied human actions being imputed to cars, this extract suggests processes affecting the car being imparted onto humans. Danny claims ‘I’ve got a puncture’ and Niall replies ‘have you’ in a way that somewhat overlooks the fact it is the car that has potentially sustained the puncture. This to my mind gives an excellent illustration of what Urry is getting at when he speaks of the

car-driver, in that the boundaries between car and driver can become blurred in a way that leads the crew members to feel they themselves have sustained the damage the car has picked up.

In some cases the natural environment also starts to take on human properties, as seen in the way Luke describes to Anthony (VIDEO CLIP 25):

L: Yep small crest one thirty care left four narrows and small crest very long right eight (.hh) (3.0) very long right eight it nips on ya a little bit and left seven no cut onto the bridge

The landscape here is discussed as being something that may pose danger to humans, as illustrated by ‘it nips on ya a little bit’. The way this is expressed, ‘it nips’, gives the impression that the landscape may hurt humans of its own accord, and not that this harm will be the result of humans falling foul of the physical properties of the landscape by driving through it too quickly! Scott talks about hazardous corners in a similar way (VIDEO CLIP 26):

S: Seventy crest fifty crest eighty (.) bad right seven over crest plus (hh) >bad right seven over crest plu:s< seventy (hh)

This equally demonstrates a relationship with the natural surroundings and the ascription of value. The corner is described as a ‘bad right’, but what makes this corner ‘bad’ is the potential it has for those driving at speed to have an accident. There may well be nothing negative about the topographical features of the corner as such, but because of its undulating nature and proximity to ‘hard’ landscape features such as rocks and trees the corner automatically becomes a ‘bad’ part of the environment. This furthermore is a judgment made solely in the context of the potential of the corner to cause harm to humans in this particular situation, that is, it is unlikely that the corner would be seen as being ‘bad’ by those travelling at lower speeds or in situations where swift progress is not vital.

Rory and Patrick's driving was discussed in a similar vein earlier on, however it is worth revisiting for emphasis here (VIDEO CLIP 27):

P: Forty (.) square left into middle over crest go one hundred and seventy >this is the bad rough bit down here now one seventy< (.) to the bad dum- bump dip two hundred

Again, the topographical features of the road lead Patrick to define it as 'bad'. Here, though, it is the potential for damage to the car – and not to the humans inside it – that is the primary reason for this part of the landscape being deemed 'bad'. Rough sections of road – as I mentioned earlier – can cause significant damage to vehicles in the form of punctured tyres, flattened exhausts or bent suspension components, and therefore tend to be driven through with caution. In both cases, however, it is the potential for damage to the car-driver-navigator that leads to negative value being assigned.

Anthropogenic features in the landscape tend to be viewed negatively by drivers and co-drivers. Whilst particular sections of 'natural' route are assigned negative values for the potential for danger they hold, human interventions designed to improve safety can ironically cause equal amounts of frustration. Jordan and Graeme again (Figure 5.11 and VIDEO CLIP 28):

G: To another chicane

J: Aye there's [a surprise]

G: [Left] left entry °left entry° (4.5) (hh) five <hundred> (hh) (4.0)

J: I=think this one takes the biscuit for being the wo(h)rst st(h)age

For insurance purposes, the maximum average speed competing rally cars are permitted achieve on forest stages is 60mph (Motor Sports Association, 2011). As many cars are capable of greatly exceeding this speed for prolonged periods of time, artificial chicanes constructed out of traffic cones, wooden pallets or hay bales are sometimes required to create obstacles for which vehicles must slow down. Jordan's

frustration is clear from the sarcastic ‘there’s a surprise’, and his judgment that this is ‘the worst stage’ seems to refer solely to the placing of these chicanes on the route.

Figure 5.11 – aye there’s a surprise!

Jordan’s frustration at having to slow down for chicanes is clear.



Susie is also unhappy at having to deal with anthropogenic features declaring ‘I hate that quarry bit’ at the end of the stage after guiding Ruaridh through an empty quarry filled with traffic barriers in order to reduce speeds and increase stage mileage. While there may at first inspection appear to be something of a contradiction between navigators placing negative value on dangerous features in the physical landscape and frustrating human-made features, there does seem to be some difference between these two kinds of value. The former is perhaps based more on a respect for nature and its potentially harmful effects on humans and their vehicles if not approached appropriately, whereas the latter could be more linked to frustration at having one’s progress in the natural environment hindered by human interventions that force the crew to slow their car down without any perceived danger. This flags up two key points in relation to rallying and the environment. One is the basic awareness of the potential negative consequences reckless behaviour within the natural environment can have (even if these negative effects are felt mainly by humans), and the other is the value rally participants place on moving within a ‘natural’ environment as opposed to something that has obviously been constructed by humans.

There are however few examples in the transcript of the relationship between the car-drivers and the environment being assigned positive value during the stages, such judgments instead being reserved for the end of the stage (Figure 5.12 and VIDEO CLIP 29):

N: That was good by the way ((*ahem*)) it was smooth and [flowing]

D: [Aye]

Compared to the evaluations of Jordan (Transcript 002) and Susie (Transcript 006), Niall offers a much more positive assessment of the landscape he has just driven through. The evaluation ‘smooth and flowing’ could be applied to either Danny’s driving or the topographical features of the stage – it is not clear from Niall’s utterance which he is referring to – but in any case it would be impossible to produce a smooth and fluid drive without the right kind of topography under the car. At least some of the value in this experience thus comes from the gently curving, undulating nature of the stage.

Figure 5.12 – that was good by the way...

Danny and Niall enjoy the ‘flowing’ qualities of this forest stage.



Positive valuations of stages of this nature, without too many sharp bends or features that require the driver to stop suddenly and sharply, appeared repeatedly during informal conversations I had during my fieldwork. By ‘smooth and flowing’, what Niall seems to be referring to is therefore the speeds that can be attained in the stage, in particular the number of corners that can be taken at high speed and also sections of route that allow the driver to get into a ‘rhythm’ without having to continually slow the car down for sharp bends or artificial obstacles. I would argue here that the natural environment has more than merely instrumental value and does more than just providing a smooth surface on which the driving experience takes place. Rather, following Askins’ (2009) view that the translation of physical sensations by the body is a key part of emotional experience, I would contest that it is the very properties of the natural environment – and the ways they are translated by the car and crew – that make this a valuable environmental experience. In other words, the physical, topographical features of the landscape are key to Danny and Niall’s experience being a positive and exciting one.

5.2.7 Prospects and relations to overarching research aims

The analysis of the rally driving world view lays some important groundwork for working out potential links between motorised recreation and respect for the natural environment. First of these is the idea of responsibility in the rally car. Both driving and navigating the car work as shared tasks, with each crew member having responsibilities relating to each other’s tasks. This mirrors Strydom’s (1999) thoughts on co-responsibility, which falls somewhere in-between individual responsibility and collective responsibility. What I take Strydom to mean by ‘co-responsibility’ is a situation where individual responsibilities are not completely negated, rather these responsibilities are viewed in light of much larger collective responsibilities. I feel the advantage of this conception of responsibility for dealing with environmental issues is that it helps to make links between the individual’s own actions and environmental issues at a much larger scale where responsibility is not always as clear (Pellizzoni, 2003). That is, Strydom’s model appears to offer an effective way of thinking about how the actions of an individual can contribute to the

responsibilities of a collective whole, without the individual feeling their own actions have no effect.

The way responsibility seems to pan out in the rally car also has parallels to the thinking of Cheney (1987) and Massey (2004) on care and responsibility. The close proximity of the crew members to each other in terms of space *and* relationships mirrors Massey's views on geographies of responsibility and the role of proximity in responsibility. This proximity and its associated responsibility is something Smith (1999) picks up on by explaining that it is easier to care for those spatially close to us as we are more aware of their needs and also better placed to respond to the needs of others. So because the crew members are working 'close' to one another with responsibilities extending into the near future, it becomes easier to see how their individual responsibilities fit into their responsibilities to each other – namely, reaching the end of the rally.

What I am getting at here is that the model of responsibility that plays out in the in-car interactions I have looked at relates to some thinking on responsibility and in particular environmental responsibility. It suggests a linkage between individual actions and broader, shared group outcomes, as well as a responsibility based on relational and spatial proximity. In short, it is not completely removed from the concept of citizenship and its ecological applications suggested by Light (2000) and Dobson (2003). It is important not to get too carried away with this idea of parallels between different modes of responsibility, though. The responsibility in rallying is more of a 'sporting' responsibility, aimed at getting to the end of the event safely and quickly, whereas in environmental responsibility the aim is more a moral one of treating the environment appropriately. All I am claiming here is that the conception of responsibility shaped through the rallying world view perhaps mirrors some of the challenges relating to contemporary environmental issues posed by temporal and spatial scales. In subsequent chapters I explore further how respect for nature might be built upon these sporting ideas of 'teamwork' and 'fairness' and perceptions of care.

Second, and related to the above, is this notion of shared outcomes. Both crew members are working towards the commonly held goal of completing the rally – and this extends to working together to resolve problems or conflicts that may arise regardless of where responsibility for the problem lies. Even when this may bring the driver and co-driver into conflict with one another, the shared goal is foregrounded. Good examples of this came out of the data when Lee and Scott worked together to restore communications after an electrical failure, and when Patrick forcefully told Rory to calm down after a spell of over-enthusiastic driving. Although each crew member may have different tasks and aims at that precise moment, then, reference to the shared desired outcome is used as a means of working round the problem – nowhere is this summed up better than Lee’s declaration ‘right tidy back up again, let’s get the notes back together’.

At a somewhat larger scale, Sagoff (2004) demonstrates similar reference to a commonly-held goal or value with the community of Quincy in California working together to protect the forest they all valued in spite of their differences on how the forest could best be managed. I am aware of the differences between this and the in-car interaction of the rally crew – not least the fact that the ethical standpoints of those involved in the forest dispute was far greater and stretched across a much longer temporal scale than the differences that occur mid-stage in a single car – but again the potential that the pragmatic concept of thinking beyond potential differences and working towards outcomes of commonly-held value already exists in some rallying world views interests me greatly. When I move on to thinking about participants’ life history narratives in more depth, I will use O’Neill’s (2007) thoughts on care for other people and care for nature to build on the idea of relationships as helping to inform environmental responsibility.

Third is the relationship of the humans in these examples to non-humans, in particular their natural surroundings. This is not, as the work of Tompkins (2007) and Cafaro (2007) led me to expect, purely a relationship showing mastery over nature. Rather, in many cases the natural environment is spoken about as something that is potentially harmful and therefore something that should be treated with

caution and respect. The landscape within which rally driving takes place is not necessarily one where humans and their machines exercise total, uncritical dominance over non-natural forms, rather it is perhaps one where complacent or careless behaviour can have painful consequences for humans.

This in some ways relates to the different conceptions of nature identified by Adams (1995) with reference to Holling (1978), and also those discussed by Van den Born (2008). There is thus potential for a number of different conceptions of what 'nature' is to exist simultaneously within the rally driving framework, with not all of these conceptions showing human mastery or dominance over nature. Whilst I am not trying to claim that driving a vehicle at speed through a natural landscape is in any way an ecocentric activity, what I am trying to suggest is that the conception of the relationship held between humans and nature may be more complicated than some criticisms of motorised recreation have put forward. By thinking a little more carefully about the relationship to the natural environment that this kind of disciplined motorized recreation entails, then, it maybe possible to find openings that fit in well to the kind of relationships advocated as part of more sustainable futures. The kind of things I am thinking about here are the notion that reckless human behaviour in nature cannot pass without consequences, and the idea that some humans may already intuitively understand the harmful effects of not treating the natural environment with the appropriate respect.

Fourth and final is the sensuous nature of this kind of automobility. As Sheller (2004) suggests, cars are not something that will be given up easily, thus it is important to take seriously the emotional and sensuous aspects of this kind of mobility. In this regard the examples I have looked at have provided some useful insights into how the car and the natural environment may be sensed when driven at speed by the crew. The senses play a key part in this, with sound and touch appearing to be just as important as the visual. Spoken commands and warnings about the sensuous surface of the road ahead seem to be just as important for the safe and speedy movement of the car as the driver's sight of the road ahead, something brought to the fore when Finlay and David have to find their way through clouds of

dust. This can hopefully contribute to the work of Bull (2004) on soundscapes in automobility, however I would on this count argue against Bull and also Urry (1999) and suggest that the surroundings of this kind of automobility are not a two-dimensional backdrop. Rather, in the case of rally driving at least the surroundings are something that are discussed and felt as well as being looked at, leading to a multisensual experience despite being enclosed within the confines of the car. The rally driving experience is, then, more than just a 'car' experience – it is an experience that is embedded within the environment and many of the things that make it exciting, enthralling or emotional for participants stem from the physical properties of the landscape.

This idea of the senses of rallying also provides useful material for understanding how the natural environment is experienced in the first, embodied instance by rallying participants. The environment is experienced through a range of senses and mediated by both the passengers of the car and the vehicle itself – it is not necessarily something reduced to the most obvious sights and sounds as Cafaro (2007) may contest, nor is it something experienced in solitary confinement as thinking on 'non-places' that is often applied to automobility might have led me to believe. In short, when one thinks about what 'the environment' means to rally drivers and navigators, it is important to bear in mind that people interacting with the environment in this way may experience nature differently due to the relationships with their vehicles and crew members, but just because this experience is different does not exclusively mean it is not conducive to the formation of sustainable environmental ethics.

My aim in this section has not been to claim that participants in motorized recreation can easily become environmentalists. Indeed, the case studies of Thomson (2003) and Sagoff (2004) to name only two remain at the forefront of my mind as an illustration of how difficult it is to put responsible environmental thinking into practice. Rather, by thinking about the links between the empirical observations I have made and the broader aims and academic motivations of my study, I have tried to identify ways in which the rally driving world view may be linked to some kind of

ecological identity or ecological citizenship. In particular, I would contest that the conceptions of responsibility, ability to work with others towards a shared goal in spite of potential differences and recognition of the natural environment as something that needs to be treated with respect that form the basis of responsible environmental practice are already present in the rallying world view. There is a kind of sustained attention to the landscape that Nassauer (2008) sees as important for the emergence of an ethic of care towards the landscape. In other words, as similar skill sets are present in both 'responsible' performance driving and developing a more sustainable ethic, more critical and responsible environmental practice among motorised recreation communities may be a shorter step than one imagines.

5.3 Broader aspects of mobility in the forest

5.3.1 Introduction

The final part of this chapter thinks more broadly about the embodied experience of moving in the forest, going beyond the experience of rally crews to think about other recreational users of the forest. I draw links and contrasts between these experiences and the rally driving experience. Four key themes are explored in this regard: the senses and environmental claims making; the mobile body in the environment; the technology of 'getting out in nature'; and forming relationships within the environment.

I start by considering the role of different senses in valuing the environment, paying particular attention to the way different stakeholders use different senses to ground their views of environmental damage. I then discuss the human body as it moves through the environment. The body is not only a site for sensing the environment and forming experience and values, but is also something that plays an active role in shaping the kind of experience participants have. I then synthesise some of the key points made in the thesis about the role of technology in mediating the embodied experience of the environment, especially the idea that technology is present in many different kinds of environmental experience, and that the presence of technology does not necessarily lead to an inferior or less valuable experience of the natural

environment. Finally, I think about how humans' relationships with nature may be shaped through their embodied engagement with the environment, and the heterogeneity of relationships depending on what kind of mobility participants are involved in is demonstrated.

5.3.2 The senses and environmental claims-making

First here is sight. Landscape architect Simon focuses very much on the visual aspects of forests when explaining how forests are planned and how conflict may arise:

So viewpoints, and then photographs, and photographs again, it's not as simple as just taking a snap. The environmental statement regs, for example, state that photographs should be either I think it's 55mm focal length, in other words which is generally agreed as what the eye sees [...] So you've got those images, now the old way was you simply did a sketch over a copy of those that showed what you think the forest might look like, but now we do computer modelling. So basically 3D modelling on a terrain

What is interesting here is the emphasis Simon places on evaluating the landscape from a stationary position. The correct focal length is used, viewpoints are identified and computer models are constructed. This seems to be in contrast to the points Büscher (2006) makes about vision in motion, and also the complex systems of movement I saw in participant observation in even the more sedentary activities such as field archery. The way landscape character assessments believe objections to forestry practices are constructed, then, is perhaps based on a different idea of how the landscape is viewed. That is, landscape character assessments of this type work on the basis of a stationary observer, whereas with the kind of recreational mobilities I studied the landscape was sensed through a mix of mobility and periods of stillness. This was not always fast mobility, but mobile viewing nonetheless.

Sound is an important part of the motor sport experience. As I experienced on a participant observation exercise (see Figure 5.4.1 and VIDEO CLIP 30) rally enthusiasts place great value on the sounds made by different cars, and are often able to tell which make of car is approaching – or even who is driving – by the exhaust

Figure 5.13 – rally cars revered for their exhaust notes.



Source: video stills by author

note long before the car comes into view. The sight of a rally car passing may last only three or four seconds as the vehicles flies into view then darts out of view, but the sound of the engine can be heard for much longer. Rule maker Tom acknowledges the centrality of sound to the motor sport experience:

one of the most emotive is noise, you know. And I would always make it very clear when it comes to noise, noise is an inherent and integral part of motor sport, we're not seeking to have silent motor sport but we do need to look for our neighbours and it's what's reasonable

This reinforces the idea of rally driving as a multi-sensual, embodied experience. For both competitors and spectators, it is not only the sight of watching a car fly past or the scenery whizzing past in a blur that is of value, rather sound plays a key role in making the experience of rally driving in the forest valuable to the participants. This links in well to Bull's (2004) work on the soundscapes of automobility, except that

where Bull focuses on the interior of the car and the technologies used to insulate the occupants from the outside world, here the sound of the car ‘at work’ becomes something that is directly valuable to spectators and competitors. In addition, this picks up on the point Tom makes about “our neighbours”, and reflects something deer stalker Brian mentions:

there are other management tools that are used just now. The vast majority of rifles have got sound moderators, so instead of getting a very loud, high velocity crack or bang off the rifle, that's moderated to a considerable extent by these sort of sound moderators, so it, it's just a sort of high velocity crack that you hear, erm it helps enormously

Rather than being something foregrounded as an integral part of the embodied deer stalking experience, Brian instead views the sound of guns firing as a source of conflict with other land users. This is demonstrated by the way he sees silencers as a ‘help and a ‘management tool’, as opposed to a nuisance in the way motor sport participants might object to noise reductions. One of the main reasons for this difference may be Brian’s identity as a manager of deer stalking, a position that – like Tom’s role with motor sport – leads him to take responsibility and think more carefully about how his recreational pursuit may come into conflict with others. In any case, the role of sound in potential conflicts involving motor sport and deer stalking gives an interesting contrast to Simon’s focus on the visual as a cause for concern.

Smell is not something that many participants discuss, but my field notes do make reference to the smells of rally driving and the part they might play in shaping a particular kind of experience. The petrol used to fuel competing cars, the rubber from competition tyres and the pine needles from trees lining the rally course all produce distinct smells associated with the experience of being involved in rallying. On the other hand, a rally organizer told me in an informal conversation how he once encountered a section of forest road that seemed to have been repaired with scraps of shell and bone from a fish factory, the smell of the rotten fish alerting him to the fact that the road had not been repaired correctly. There is in this a link to Irwin (1995) and the way residents near a chemical works sensed environmental damage from the

chemical works through the smell of ‘cornflakes’ emitted. Adding further complexity to this, however, the smell of petrol is something that to many would be seen as a sign of rally cars emitting harmful gases, but to rally competitors it is a smell that is highly valued as part of the embodied experience of rallying.

Touch and the haptic have an important role to play in making claims to environmental damage, both within motor sport and in other recreational mobilities. The roughness of forest roads, felt from inside the rally car, is often taken as a sign that more powerful vehicles ahead have caused damage to the forest road. Former driver Donald talks about this damage:

Four-wheel drive cars, once again their, their big selling point is the amount of traction and grip you get and that in itself does the damage and they have the ability to actually dig down deeper through the four wheels than the two-wheel drive cars do. So they tend to do more deep-down damage than the two-wheel drives – because they tend to be, they move the surface of the road, that can easily be put back, the bedrock is more difficult to put back

This also demonstrates the heterogeneity of rally driving experiences depending on the type of car one is using. Drivers of four-wheel drive cars tend to have a much smoother experience, where the car grips the road and moves forward – at the expense of the road surface beneath. Drivers of less powerful two-wheel drive cars, by contrast, often have a much rougher and bumpier experience as a result of the effects cars running ahead of them have on the road. Blame for environmental damage within rallying seems to be apportioned on the basis of damage sensed through touch. For other users of the same environments too, touch can be an important part of sensing damage from rallying. Sled dog racers Mike and Karen reflect on roads recently used for rallying:

Karen: It, they chewed it up, I don't know if it was the four-wheel drives or whatever but it was chewed up and what they did to actually just repair the forest was go up the back and excavate out some of the big chuckies, the big stones and put that down on the trail

Mike: What they actually do is they give it to a subcontractor to repair, and we've been trying to say well, if you're going to try and repair it, let's agree it to a standard that puts it back to what it was before that we can go back

and run there, because on what they reinstated it with last time, is just, you could not run the dogs over it, it was way, way too rough

Mike and Karen's view of car rallies as damaging to the environments that they race their dog sleds through is based very much on the changes to the haptic properties of the forest road after a car rally has passed through. These changes are not only brought about because of the way the rally cars churn up the surface of the road, but also as a result of the type of materials used by the Forestry Commission's subcontractors to repair the road at speed. Again, then, whereas Tom speaks of noise as being the most obvious environmental impact of motor sport, different stakeholders may make claims to the environmental damage caused by motor sport through different senses. That is, whereas those living near to racing circuits or rally stages may make claims based on the noise of motor sport, sled dog racers make claims to environmental damage based on touch.

Adding further complexity still is the potential for environments to be discussed through several senses working together. A good example of this is given by path builder Keith, who has worked with communities and local authorities to reduce the illegal use of community woodland paths by off-road motorcycle riders. Keith's discussion of how community members came to see the use of motorcycles as problematic is grounded in several senses. Namely, the sight of large circular tyre tracks on grass, the feel of rough ground on paths that have been churned up by motorbike tyres, and the sound of high-revving motorcycles racing through the forest from far away. What I am getting at here is that environmental damage by other stakeholders may be sensed by one sense alone, or through a number of senses working in combination to lead to the definition of an environmental problem.

5.3.3 The mobile body in the environment

As Sheller (2004) puts it, kinaesthetic investments orient us towards the world around us in particular ways, and it is these orientations that generate emotional geographies. In other words, it is the way we move through the world that leads us to sense something is 'wrong' with the environment or with the way others are treating

it. When thinking about embodied experience and the part it plays in informing environmental values it is therefore important to consider the mobile body in the environment. The human body has a key part to play in different kinds of forest mobility. In the very first instance, as well as sensing the environment around it, the body can shape the very experience participants have. Orienteer Laura:

in Switzerland at Zermatt we were took up the, we went up the Gornegrat railway. Three thousand metres above sea level, the highest orienteering in Europe and that was quite cool [...] there was no vegetation so it was much more difficult to navigate. The altitude also made it interesting for breathing!

Laura's ability to move quickly across the orienteering course is informed by the ability of her body to cope with changes in altitude. If the course is at a high altitude, the reduction of oxygen in the air means Laura has to think more about breathing – something illustrated by the fact she places altitude right up alongside the lack of vegetation as factors contributing to a challenging experience. Even from inside a rally car, the physical properties of the human body are crucial to the nature of embodied experience, as co-driver Martin believes:

The dietary requirements are also important, I mean when you go to a rally, you see them all there, bacon rolls, burgers [...] and things like that, Red Bull, to keep them going [...] I will automatically look for an Italian restaurant or something like that so that I know we can get a pasta-type meal to the night before, night after it doesn't matter about it, does it? But the night before it's very, very important and er again these kids have got to learn that

How the body is 'fuelled', in Martin's opinion, is crucial to the successful execution of the co-driver's tasks. Although the rally crew members are not subjected to the same physical stresses as, say, an orienteer, there is nonetheless a correct way to prepare one's body for an upcoming event. The consumption of heavy meat-based snacks and sugary energy drinks can induce nausea or bring on bouts of tiredness, hence Martin's belief that light, pasta-type meals are required the night before a rally. Martin also talks about eating 'healthy' Chinese food during the rally's lunch halts as opposed to the hamburgers and bacon rolls commonly prepared by amateur rally crews. In other words, the human body does not just passively sense the

surrounding environment and use these as the basis for forming environmental values. Rather, the body itself and its physical properties play an active part in sensing and forming opinions of the surrounding nature. This extends Dant and Wheaton's (2007) study beyond windsurfing, suggesting Dant and Wheaton's argument that the body plays a pivotal role in shaping the nature, speed and control of mobility can be applied more broadly to other recreational mobilities. That is, the body has a vital role to play in shaping – as well as sensing – the type of embodied experience of nature that participants have. For Laura, this even extends as far as to the physical properties of the body directly informing the speed she can move at.

Related to this idea of the body being key to mobility is the question of ontology. This is particularly pertinent where the embodied experience of the environment is mediated through a number of technologies, not just in the case of rally car drivers. Mountain bikes, dog sleds, archery bows, rifles and even binoculars all inform the way participants engage with and value the environment. It is worth thinking briefly about the ontological relationship between participants and the technology they use, if only to understand how and to what extent these technologies shape particular embodied experiences. Fourcross rider Dave demonstrates how he turns corners quickly (VIDEO CLIP 31):

I'm in the bike and strapped in ((makes strapping in motion with hands)) and I do that, and I do that ((pulls arms and legs tightly together)), and I just go ((sucks air in)), and that's it which is brilliant. Because obviously I can't use my legs, but er from, from that bit upwards ((moves hands from waist upwards)) I'm mobile, so what I can do where, where you might throw your weight around and maybe put your leg out around a cor:ner, I can control the bike by ((uses hips and arms to illustrate movement))

Here, Dave does not talk about 'being' the bike, rather he talks about being 'in' the bike, as illustrated by the direct expression 'in the bike' and the way he gets 'strapped in'. The kind of experience Dave has does not seem to be one where all of nature is sensed through the bike in the way the rally crew sense nature almost

exclusively through their car. Rather, there are some things Dave feels through the bike and others he can sense directly (VIDEO CLIP 32):

Dave: I can't feel my feet, so >if I was riding down the trail I could conceivably flick up some stones<

Interviewer: Yep

Dave: And really do some damage to myself. But that, it, because your toes go under there ((makes cupping motion inside crash box)) you, you constantly when you're riding down you just hear like ((ding, ding, ding, ding)) ((hits base of crash box))

Although Dave cannot feel his feet (he is paralysed from the waist down), there is nonetheless the possibility for his body to come into direct contact with the stones on the trail, giving a direct engagement with the environment surrounding the bike. At the same time, though, it is largely through the sounds of the stones hitting the metal plate protecting Dave's feet that he is aware of the stones, almost to the extent that the dinging of the stones on the plate blocks out many other sounds. Like Schyfter (2008), I would not go as far as to call this a hybrid ontology, rather I would say it is a mixed ontology due to the inconsistencies both in and between participants' accounts of embodied experience. In any case, what is of relevance here is the way the technology participants engage in the environment through can lead to particular types of experience, with technology not necessarily shutting the body off completely to the forces of nature.

Indeed, there is a very direct role for the body in shaping the kind of movement participants in forest mobility have. Alongside the way Dave has to turn the wheels of his fourcross bike to build up speed, sled dog racer Karen notes other effects the human body has on the speed of mobility:

Karen: of course people would go and get a lighter, lighter, lighter rig and yet (.) a sixteen stone guy would stand on the back, you know

Interviewer: ((laughs))

Karen: Whe(h)reas you know, >I could stand on the back of that< and, you know, so it was erm, erm

The human body here is distinctly separate from the dogs and the rig, but at the same time it has a very direct effect on the speed of mobility because of the weight of the human body. No matter how light and technologically advanced the rig is, a heavier rider will slow the rig and dogs down, giving a slower riding experience. The body is thus separate from the technologies associated with mobility, but at the same time it plays a key role in shaping the way the vehicle is controlled and thus the precise nature of the embodied experience. Going back to the points above about the physical properties of the body, this again shows that the human body shapes environmental experience itself as well as sensing it, linking in well to Ingold's (2000) view that mind and body are not separate but rather part of the same organism.

Linking in to the relationship between the body, its associated technologies and the surrounding environment is the fragility of the human body. That is, many participants engage in pursuits where the human body can become damaged as a result of the interaction between technology and natural phenomena or processes. Mountain biker Steve explains:

So the idea is actually to keep the bike as on the ground as you can, and the suspension and the technology of that suspension now has vastly improved in keeping you on the ground, but if you are airborne and you're landing it's soaking up that impact [...] [i]t's going to hurt a lot less. And your body, it's technique, your body's got a massive amount of travel in it, you know, and a lot of people ride very rigid and that's how you hurt yourself more, and you become unstable

Moving through the forest at speed and using the topography as a launch pad for jumping through the air increases the possibility of the human body being damaged through an awkward landing or crash. What is particularly interesting, however, is that there is both a technological and a psychological response to this fragility. On one hand, new suspension technologies soak up much of the impact of the bike returning to the ground, shielding the human body from the force of impact. On the other hand, adopting a more relaxed stance and riding less rigidly also helps to reduce the likelihood of injury by bringing out the natural flexibility in the human

body. This combination of technological and psychological approaches to human-environment relations is something I will come back to in the concluding chapters, but motor sports rule maker Tom makes a very interesting practical point about the relationship between the body, technology and the environment:

I mean one of the difficulties when they had KERS¹³ in Formula One and it was only there for a year, er they took a very cautious approach, so everyone had to wear rubber boots and gloves and so on, so everyone's frightened of anything that's electrical, very frightened, and so we have a bit of a problem there

What this illustrates is that in spite of the range of technologies on offer, the human body is still very susceptible to natural forces – in the case of Steve, gravity, in the case of Tom, electricity. The fragility of the human body fits in with Twitchen's (2000) view of the easily breakable and penetrable human body behind the 'second skin' of protective clothing in motor sport, and creates a potentially interesting opening. Namely, that in spite of technological advances and activities that seek to use nature for the fulfilment of human values and preferences, the human body is still ultimately susceptible to the forces of nature. There is thus a challenge in trying to shift this acknowledgement of the fragility of the human body to a broader understanding of the potentially disastrous consequences reckless human behaviour within the natural environment can have. There is perhaps already an understanding within motor sport world views that humans cannot just do as they please when moving within the natural environment, from which a more general understanding of humans' susceptibility to the forces of nature – and thus the importance of treating nature with respect – might be able to be teased out.

The last thing I want to say about the mobile body in the forest is to do with time, especially changes in mobility that can occur with age. The type of environments that field archer Bob is physically able to access has changed over time as his body ages:

¹³ KERS stands for Kinetic Energy Recovery System, a system in Formula One where some of the car's power is produced by trapping potential energy when the car braked and recycling this to supplement the power from the petrol engine. The system was scrapped after one year due to the lack of a clear performance benefit, but has been reintroduced since the interview with Tom.

The, the one in Eliebank is the toughest, the toughest one we've got, it's, it's very much hill country, er, at my age I do not now attempt to walk it, quite frankly. It's that stage, my knees are, I fished and hillwalked and did stuff for years, and eventually my knees are telling me you know you should never have done that when you were younger

Bob's age and his occupational and recreational activities in the past mean that he no longer feels able to walk the most challenging field archery courses in Scotland. The kinds of environmental experiences he has will therefore be increasingly based on the less hilly or remote courses, those that are more open and have additional human-made features to aid progress. I am not trying to claim this makes the experiences Bob has as he grows older less valuable or less 'natural', only that there is a potential difference in the nature of embodied experience and the kind of values that may arise from this. Temporality can also affect the type of engagement as skill increases and new technologies are brought in. Stargazing facilitator Malcolm:

we would have, binoculars are, binoculars are, sit somewhere in-between because they're a lot easier for people to use than telescopes and they're, you can find objects more easily with a telescope with a wider field of view which is why you'll struggle with a telescope, so we'll often have binoculars at events. But that's the next step up, and if people are hooked by the naked eye thing, erm, then they'll go and get a telescope or binoculars and work it out for themselves

Malcolm encourages novice stargazers to begin by familiarizing themselves with the night sky using only the naked eye and a star chart. His reasoning is that it is better in the first instance to familiarize oneself with the overall layout of the night sky rather than trying to focus in on specific planets, stars or constellations. As interest and knowledge of the night sky increases, stargazers may move up to binoculars, which offer a closer view of a particular part of the sky but still allow relatively easy movement, before progressing on to telescopes, where a much more focused view is afforded at the expense of freedom and ease of movement. In other words, as skill, experience and understanding increase over time, stargazers are able to use technology to create a much more intimate and in-depth – but narrow – engagement with the night sky. In a motor sport context, Donald explains in very clear terms how

owning different cars over time can lead the human body to move in very different ways:

Well, the, the favourite was the very last one, the Sunbeam, because it was, it was a pukka car, it was professionally developed, professionally built, it was er I, I wasn't having to fight the car, it was like riding a, you know a thoroughbred – if you can hang onto it you'll, you'll do well. [...] But the, one of the enjoyable times was I, I joined the, the Astra Challenge back in what would it be 1983 and the big attraction was you got, you got huge discounts on the bits to build the cars. They weren't that dissimilar to what we're doing with the, with the 205s, because I went out and bought an ex-rep's Opel Kadett with a boot, didn't have a wasn't a hatchback, but it had over 100,000 miles on it, and we put a brand new engine in it went away and did the Scottish in it and it, it you only had 100bhp under your foot and you had to make use of every bhp, and you really learned how to, really started to have to think erm about how to get a car going

Merriman (2004) discusses how the spaces of the car-driver and specifically the materialities of the car have changed over time in a variety of ways, and it would seem this is just as applicable to rallying as it is to Merriman's work on motorway driving. As car technologies change, so the type of experience the driver has, and thus the relationship with the environment, changes. What I particularly like about Donald's account is that he does not seem to talk about competing in an older, less powerful and less sophisticated car as being a less worthwhile experience. Whereas the Talbot Sunbeam allows him to ultimately drive faster, score better results and enjoy a less frantic experience where the car is 'ridden' rather than 'fought', the old Vauxhall Astra leads Donald to think much more carefully about how he controls the car. This reinforces the point I made about Bob's change in experience over time, in that a change in the nature of mobility over time does not necessarily make the experiences people have more or less valuable. Even within one form of recreation, subtle differences over time can change the type of experience participants have and shape the kinds of values associated with this.

This in turn provides an interesting addition to Abram (1996) and his idea that a genuinely ecological approach does not work to attain an envisioned future, but instead strives more deeply to enter into the sensorial present. If the nature of sensuous experience of the environment itself can change over time, then it is important to think how the 'sensorial present' may change as humans' lives progress

and consider how these changes can alter environmental values and actions. I know Abram's main point here is that a genuinely ecological approach needs to consider humans' sensuous relationships with nature – something I agree entirely with - but within this it is perhaps important to keep in mind this idea that the body's engagement with the environment, and thus the values that may be shaped, is not static and may change temporally. Sensuous experiences are not the same for the duration of a human's life, so a genuinely ecological approach needs to be able to cope with and work round changes in sensuous experience over time to ensure that Zavetovski's (2003) challenge of sustaining ecological identities is met.

5.3.4 The technology of 'getting out in nature'

Technology is something that has appeared at various points in my analysis of the embodied experience of moving in the forest. What I want to do now is synthesise these various points to give a brief overview of the role of the technology behind 'getting out in nature'.

Technology clearly has a role in shaping the embodied experience of the environment, and thus can affect the experience from which environmental values and actions are negotiated. I would argue, however, that the presence of technology does not necessarily make some embodied experiences 'worse' than others, and that technology has a big role to play in mediating even seemingly natural experiences. A neat and physical example of how technology can inform participants' mobility is given by motor sport television programme producer Greig:

you can't just pick up a camera and go out, I mean it'll take you two or three years to do it properly, erm and there are a lot of camera crews, I've watched, I've watched cameramen falling over their tripods and god knows what trying to follow rally cars and standing in the daftest of places

Technology here informs the movement of camera operators in very material ways. Engaging in the environment through the viewfinder of a camera leads the less experienced or less skilled camera operators to concentrate on the visual properties of the landscape to such an extent that they lose a sense of balance and fall over the

terrain or the viewing technology itself. Alternatively, the desire to get ‘a good shot’ of a rally car in the landscape can lead the camera operators to visit parts of the immediate scenery that they would otherwise not visit. This provides a very clear example of how technology can shape the embodied experience of different people, by concentrating some senses and leading the participant to the parts of the environment where the technology works best.

Even in less obviously damaging mobilities, there is a major role for technology.

Field archer Bob:

some of the folk there are, if you see the bows they've got, the state of the art one's got a compound, it's got wheels on it and they're multiplying pulleys. When you pull it, it's maximum power, and then when these wheels start to roll it goes onto maybe a six openweight, very very acces-. People kind of laugh at it, it's a machine, it's a mechanical bolt, but it produces real accuracy, a lot of lads are using telescopic sights on them, and they've got a release, it looks like half a, a trigger, hook on the string, just tweak the trigger and off goes the shot

This is in stark contrast to the value of ‘getting out in the countryside’ that one of Bob’s fellow archers highlighted in the participant observation following the interview. An activity valued largely for its stillness and tranquillity still draws on technology in order to shape the embodied experience that is valued. The compounds used to construct the bow, the pulley systems that enhance the power of the shot and the telescopic sight are all part of this experience, even though participants talk at great length about getting out into the forest. The experience field archers have is not necessarily less enriching than they might claim it is, but the presence of technology need not in itself restrict the potential for environmental values and experiences to be shaped. Likewise, the fact that the technology can alter the sensory engagement with nature and shape a particular kind of experience need not necessarily make that experience less valuable.

There is nonetheless a distinction between appropriate and inappropriate technologies. In many of the recreational pursuits I looked at, even those that relied heavily on technology as a key part of the experience, there seemed to be a sense of

when the use of technology was unfair or unnecessarily damaging to the environment. Ranger Duncan illustrates this with reference to the use of motorcycles on Forestry Commission land:

in one forest in particular in Dalbeattie it was a really bad problem, the forest is right next to the town and it's heavily used by people walking, lots of old people and families and there's a loch in the middle and they sort of walk round the loch. But unfortunately we were getting a problem with lots of young lads coming out and using that same circuit as a racetrack. Which is obviously highly dangerous and highly illegal because they weren't insured or anything

It is interesting to note that Duncan does not mention the impacts of the motorcycles on the forest itself here in the way that path designer Keith does when discussing a similar problem. Instead, Duncan sees the motorcycles as problematic largely because of their inappropriate use. This use is inappropriate because of the values conflict with other land users it can lead to, and also due to the lack of legal control over the riders. With landscape architect Simon noting that rally driving is “not an anathema” to the Forestry Commission, this suggests that the use of motorised vehicles in forests is not intrinsically seen as a bad thing. Rather, there is a sense of an appropriate use for motorised technology, that is, where the technology is regulated, granted access to the forest through a permit and insured for any damages that may be caused. There is, in short, an appropriate way to use technology in the forest so as to limit the potential for conflict with other land uses and to reduce the potential for environmental damage.

Even within rally driving, there is a distinction between what kinds of cars are seen as fair and appropriate. Returning to the point Donald made in the first section about four-wheel drive cars causing more damage to the forest roads, there is a sense that more powerful cars are inappropriate due to the negative effects they have on the topographical properties of the environment that they pass through. It is important to register that Donald's arguments are made largely in the context of more powerful cars making conditions tough and unfair for cars running further down the field, but within this there is a recognition that technology can be perceived as an ‘appropriate’ or ‘inappropriate’ medium for participants’ forest mobilities. This in turn has links to

Harper (1987) and his suggestion that with smaller farm machinery, the farmer is more likely to be attuned to what the machine is doing to the land and to itself – with a less powerful car, then, many of the values associated with rally driving can be fulfilled but the potential to understand the natural processes around the car-driver-navigator is maybe clearer.

The final thing to reiterate with regards to the technology of getting out in nature is the technology of ‘naturalness’. I talked about this in some detail in the previous chapter on the forest landscape, so in the interests of brevity I shall only point out some examples of this technology. The use of polystyrene model animals on field archery courses, the careful construction of jumps and terrain features on mountain bike courses, the use of local materials to construct forest paths and the landscaping of noise bunds at racing circuits all stand as fine examples of a desire to make human interventions in the landscape seem as natural as possible. Again, the point I want to make by reiterating this here is that even in seemingly very natural experiences, a lot of technology may go into making the experience seem as natural as possible. What is therefore important is to think about how human interventions in the environment may alter the nature of embodied experience and change the nature of environmental values and actions that can be shaped from this.

5.3.5 Forming relationships within the environment

According to Ingold (2000), it is through the body – including the mind - that social relationships are formed and negotiated. Although I will discuss relationships to other people, to non-humans and to places and their role in shaping values at some length in the next chapter, it is therefore worth spending a little time thinking how relationships are formed with nature through the body. The kind of relationships I am thinking about here are relationships with both humans and non-humans, but particularly relationships to non-human nature.

Within individuals, the relationship to the environment can vary. That is, the way humans perceive and value the environment is not fixed, and can change depending on contexts. As mountain bike trail designer Steve explains:

so you say these are the points we definitely want to get to, can we connect those together using the erm, using the theories if you like of how we make sustainable trail. Because there's definite theories, but you can break the rules, but you have to know where you can and where you can't break the rules. So thing-, when I say the rules I mean things like gradient, water management, if you've got very, very good quality soils you can break the water rules and have the water running down the trail without getting too much washout, but you have to know your soil structures to be able to do that

In Steve's account, his relationship to the natural environment is not fixed. In other words, it is not a relationship where he is always able to dominate nature and use it to create the kind of trail he wants, nor is it a relationship where he is always working within the confines of natural processes. Instead, what seems to be happening here is a more complex relationship where it is sometimes possible to 'design out' natural processes and sometimes necessary to acknowledge humans cannot sustainably alter nature. It is also about Steve's expertise in knowing the physical properties of the landscape to the extent that he does not always have to follow 'the rules'. For instance, depending on the underlying soil structures in some places it may be possible to have water running down the trail without erosion occurring, however this view of nature as non-threatening to the human construction of the trail can only occur when the soil is of a suitable structure. As to how relationships with the environment can change under conditions of mobility, consider orienteer and fell walker Laura:

Er orienteering is quickest route you don't care about the brambles you just run through it (laughs). You don't care about getting cut and torn you, just go straight through whereas fell walking you can sort of choose a nice route and sort of take your time and enjoy it. Orienteering is sort of sometimes, like I went off orienteering for a while because I just wanted to walk it and enjoy it erm so fell walking was sort of my preferred thing you just get to enjoy for what it is, you get to see the wildlife where orienteering takes you into terrain you wouldn't ever have gone into otherwise

Laura's relationship with nature again changes depending on what she is doing. If she is orienteering, then the terrain is something that becomes more of a hindrance to reaching the orienteering checkpoints. The features of the natural environment that must be traversed are obstacles to progress, in some cases obstacles that have painful side effects but are ignored in the pursuit of setting the fastest time possible. When fell walking, by contrast, Laura is able to move at a slower pace and reflect on natural features as things to be appreciated rather than things preventing her from accomplishing the task of running as fast as possible. The examples of Steve and Laura somewhat problematise Van den Born's (2008) division of human relations to nature into four categories – master, steward, partner, participant - in that the way people see their relationship with nature can vary significantly depending on what type of embodied experience they are reflecting on the environment through.

Equally important in shaping heterogeneous relationships to the environment is weather. Again, Tim Ingold is an exemplar in this field, talking about weather worlds and the place of weather in experience (Ingold, 2005). In a rally driving context, weather can have a very significant role in informing the way participants relate to the environments they move within. It was because of ice that Donald, the retired rally driver, was able to score his best ever result:

the best result I suppose I had was at Knockhill, funnily enough. And it was a day when I had a late entry, and it was we got there and it was ice, the track was sheet ice and I was running car twenty six in the Sunbeam and by the time we went out it was a line. All the leaders on the first stage, the, they were taking something like seven or eight minutes to do two laps of Knockhill and I, I did it in er something like two minutes something or other. So we got a big head start and then they were all trying to catch up with us

Cold weather and the resulting ice on the track meant Donald's rivals were slowed down early on in the day, however by the time Donald and his co-driver took to the track the ice had melted. 'Knockhill funnily enough' illustrates that the location of Donald's result would otherwise be considered a mundane and uninvolved place to rally, however as a result of weather conditions the rally became a highly memorable one for Donald. Related to memory – and again especially pertinent for rally driving – is the role weather plays in symbolism and construction of a valuable experience.

A morning's participant observation on a rally taking place not long after a heavy snowfall (see Figure 5.14 and VIDEO CLIP 32) demonstrated the effect snow has on making the rally experience more authentic for spectators.

Figure 5.14 – an authentic experience? A snowy Scottish rally brings out spectators (left), echoing traditional perceptions of rallying such as the image from Sweden in the 1980s on the right.



Source: left – photo by author; right - http://images.forum-auto.com/mesimages/94190/78sweden03_alen.jpg, accessed 17/12/2010.

Linking in to Cater and Cloke (2005), the sight of rally cars sliding and battling their way through snow and ice fits in well to the images of world-class competitors taking on the snow in locations as exotic as Monte Carlo, Sweden and Norway¹⁴. Snow also has a part to play in making some non-participants' experiences more valuable, namely sled dog racers Mike and Karen:

Mike: to do it on the snow like that is, it's what you want

Karen: It's amazing yeah, it's exhilarating

Leslie: What's better about doing it on the snow?

Karen: Well, huskies were bred to run on, on the snow [...] so to be able to pull a sled, to use them to do what they're bred for is great. Erm but it's also just, I mean it's, it's clean, I mean fortunately those two races were both very

¹⁴ For a good example of the centrality of snow to memories of rallying, see the famous rally photography website <http://www.mcklein-imagedatabase.com>, accessed 18/02/2011.

dry, but quite often you know, you come back, the dogs come back filthy, you come back filthy [...] and it's, it's just something really special

Again, racing dogs on the snow fits with ideas about what the 'proper' environment for Siberian huskies to race in is, in much the same way my field notes illustrate how a snowy forest is the 'proper' environment to race a rally car in. Interestingly, in both cases the snowfall has a part to play in making participants feel they are in another country more commonly associated with their pastime, Scandinavia for rally driving and Alaska for dog sledding. What is of importance here, though, is that weather plays a pivotal role in making experiences and places valuable to participants, thus weather is in some cases a vital factor informing humans' relationship to the natural environment.

The last, brief, point I wish to make is about non-humans' relationships to the environments they dwell in. The reason I flag this up is that several participants saw their relationship with non-humans as integral to their embodied experience of nature – in other words, the embodied experience with the environment comes about as a result of some stakeholders' relationship to non-humans. Conveniently, Mike and Karen's account provides a bridge between the point about weather and the point about non-human values:

Karen: Loch Morlich, that trail there is, is good for that particular event but it could be quite boring for the dogs because really you're going up a hill, you've only really got about two, three turns

Mike: Yeah big, big long straights and the dogs

Karen: Get bored

Mike: They see, they can see for miles, they'll get bored, but whereas if you have a series of left, right, left, straight up they erm, they'll keep the pace

The quality of Mike and Karen's experience is contingent on the quality of their dogs' experience, in that if the dogs become bored of running in a straight line and slow down, then they will not maintain the pace that is an important part of Mike and Karen's experience. For deer stalker Brian too, an environment and weather

conditions that satisfy the preferences of non-humans is key if his environmental experience is to be more valuable:

if you'd been planning to go out stalking and woken up and it was chucking it down with rain you wouldn't have bothered, because it's pretty unproductive, deer don't like getting too wet so they're not reactive in the rain

The difference, of course, is that Brian wants the deer to enjoy the conditions so that they will come out and he can hopefully shoot or at least stalk them, whereas Mike and Karen want conditions that will be fulfilling for them and interesting for the dogs. There is an interesting opening in terms of imagining human relations to the environment here, because the embodied recreational experience of some humans depends on the conditions of the environment also being valuable for the sentient non-humans to whom they relate. Paralleling O'Neill (2007) and care for the environment via proxy, then, the relationships between humans, sentient beings and the natural environment within which they dwell serves to reinforce the complex ways in which humans come to value and act towards nature. Understanding what animals might value in the environment could be a key part of understanding what some stakeholders value.

5.3.6 Conclusion

In this section I have explored the idea of moving within the forest more broadly, extending the discussion in the previous section on rally drivers' experiences to the embodied experiences of other users of the same environment. Where possible, in doing this I have tried to tease out similarities and differences to the motor sport experience, so that a better understanding of areas of practical or values conflict can be gleaned.

The first point I made was the role of the senses in embodied experience. As opposed to landscape character assessments that foreground the visual aspects of the impact of forests on the landscape, I suggest that sustainable futures can be more effectively imagined if the mobile and multisensual nature of environmental claims making is

acknowledged. I then explored the idea of the mobile body in the forest. By looking at the ways the human body itself shapes the kind of experience stakeholders have, the idea of the materiality of the environment in my research was reinforced. That is, alongside the wider issues of environmental ethics that are at play, there is a certain materiality and physicality to the issues at stake. The temporal changes in the body and the potential this has to change the kinds of environmental values that are shaped was highlighted as another complicating factor in understanding how humans value the environment.

I then gave a brief summary of the place of technology in embodied environmental experience. The implications of this for my work generally seem to be that technology need not be a bad thing, however its use must be accompanied by careful and critical reflection on how the presence of technology can affect ecological identity work and action. Finally, I argued that individuals' relationship to nature can change on a relatively short temporal scale depending on the kind of mobility they are engaging in – for instance, what may be seen as dangerous or capricious when taking part in one mobility may be much more attractive and interesting when doing something else. This adds complexity to Van den Born's (2008) models of human-nature relationships by suggesting the same people may be in a different relationship with nature depending on what they are doing. Following analysis of participant accounts, the weather was identified as a very significant factor influencing what kinds of place were seen as memorable or valuable. This builds on Tim Ingold's work on weather worlds and shows the importance of weather in shaping memory. This again shows the complexity of environmental values work and the importance of developing a close and nuanced understanding of different mobilities if conflicts are to be reduced and more sustainable futures imagined.

This chapter has thought through what 'the environment' might mean for rally participants and the other stakeholders they share the forest with. I have illustrated the centrality of embodied experience to the way different stakeholders sense the environment is being treated in an inappropriate way, and thus the importance of taking into account embodied experience if one is to understand how values conflicts

arise. Moving towards respect for the natural environment, I have also argued that rallying is an environmental experience, one where the elements participants place value on arise out of the very physical properties of the landscape rather than just the car. 'Complexity' is a word that appears in this chapter many times, reinforcing Weston's (1985) view on the non-linear formation of environmental values and illustrating there is not a clear and obvious link between embodied experience, environmental values and environmental action. It is because of this that I believe the broader contexts surrounding stakeholders' actions need to be explored if a fuller understanding of how actions towards the environment are reasoned towards, mirroring Clayton and Opatow's (2003) notion of ecological identity as the intersection between practical action and its broader significance. What I will do in the next chapter, then, is try to bolster some of the ideas that have come out of studying embodied mobilities with reflections away from the immediate pressures of the field.

6. HOW ARE ENVIRONMENTAL VALUES SHAPED, AND HOW ARE THEY NEGOTIATED IN PRACTICE?

This chapter moves on from the preceding chapter, where I looked at what the forest environment 'is' and how different stakeholders form understandings of the environment based on sensuous engagement. In this chapter, the broader factors underpinning how environmental values are shaped and negotiated in practice are discussed. Although I take on board the points of Rodaway (1994) and Crouch (2001) about the importance of embodied experience, I also follow Paul Taylor's (1986) views on the importance of wider contexts in making sense of individual decision making and John O'Neill's (2007) thoughts on the links between emotion and rational decision making. It is for these reasons that I believe critical scrutiny should be afforded to the wider contexts in which environmental values are reasoned towards and actions justified.

I am particularly keen to use the concept of ecological identity to strengthen this relationship between broader contexts and environmental action, thinking carefully about how the life narratives of individuals, groups or organizations may work together to shape the way the environment is valued. In other words, alongside the work I have done on embodied experience I also want to think about other factors at play that can perhaps be better drawn out of participants away from the immediate pressures of the field.

Whilst the central aim in this study is to think about the forms of environmental responsibility that can workably be implemented within a motor sport context, considerable time will also be spent thinking about the other users of the motor sport landscapes. There are several reasons for this. First, I intend to follow on from Paavola's (2008) call for polyvocal environmental debates and move this into the practical sphere by ensuring that the voices and values of non-participants are taken into account. In light of Klenk's (2008) pragmatic proposal for forestry I also believe that looking at those not involved with motor sport can shape a more nuanced understanding of what is distinctly valued about *motor sport* mobility in the natural environment. In a practical sense, enquiry into other stakeholders may also help to

flag up potential outcomes that may not have been suggested otherwise and suggest areas for addressing conflicts in practice.

Five broad themes of environmental value shaping and negotiation arising from the data are discussed: place; identity work; relationships; narrative; and presentation and performance. Under *place*, I look at the value that may be invested in symbolic motor sport locations and consider how this may move participants to act to protect the environment. I also think about the topographical and aesthetic qualities of place and how they contribute to value. In *identity*, I follow Light's (2000) suggestion that ecological identities may work best in conjunction with other identities and think about the complexity of identity work in relation to environmental action. I look at how environmental values may shift according to the identity participants are 'speaking' through, but also look at the interplay between identities and the potential change of values over time. In *relationships*, I think through the role of relationships with other humans in shaping environmental values, and start to move towards the more practical outcomes of the work by considering how environmental problems are sensed and defined through interpersonal relations. Under *narrative*, I consider how O'Neill, Holland and Light's (2008) narrative trajectory of place may be extended to individuals or organizations, showing the importance of life history narratives in gaining analytical purchase on environmental values and decision-making. I argue that just as a narrative trajectory of place may be imagined, so it might be possible to imagine a trajectory of personal relations with the environment based on respect for the environment in relation to what has gone before. Finally, in *presentation and performance* I turn towards how environmental values and contexts manifest themselves in practice. I pay particular attention to the role of texts in shaping and reproducing ideas about what is an appropriate way to act within the environment, how claims to environmental damage are made by different stakeholders and how deliberation can help to talk across different units of environmental value, and how the relationship between embodied action and broader environmental identity and value work is reciprocal.

6.1 Place

The first area of environmental value shaping and negotiation that I want to look at is the role of place in values. Norton and Hannon (1998) argue that little has been done to mobilise the concept of place in environmental values, however in many instances in my data it is possible to see how associations with place come to inform the way people value environments. Bringing this even closer to my aims of imagining more sustainable futures for the spaces of recreational automobility, Nassauer (2008) suggests that as place tells us about the owner's pride and work ethic, looking at the way people invest in place can give us clues as to the future of the landscape in question¹⁵. Most clearly in the context of motor sports, retired university lecturer and car enthusiast Robert was moved to establish an organisation to protect and restore a part of the Scottish countryside due to the area's historic links to motor sport. He explains:

I suggested look why don't we get a group together and try to preserve it because if we don't it'll just go forever [...] because it's on the way out really, needing quite a bit of work and it's a famous road anyway for Scotland [...] and people have started their motor sport there you know Sir Jackie Stewart? I think Jim Clark won his first class there. So erm it has quite a lot of heritage in it so I had decided see if there's any mileage in it see if we can get the the thing off the ground

The concept of place is, of course, subject to some contestation in geography literature and I have discussed this in the literature review. What I find interesting here is that Robert's association with place draws on the three elements Cresswell (1996) sees as key to place – namely, nature, social relations and meaning, and it is the combination of these three elements that leads him to act towards this particular place in the way he does. *Nature* here may be seen to be the natural processes acting

¹⁵ Nassauer gives a very broad definition of what 'ownership' of a natural environment might mean. She suggests that this ownership could be the ownership or property or even the caring of a community, and could apply to parks or front yards. Due to my interest in O'Neill, Holland and Light's (2008) concept of narrative trajectory of place, I am keen to embrace Nassauer's broad definition of 'ownership' as including the care of a community, and follow up her ideas on how people's investments in place can give clues to what the future of the landscape might be.

on the decaying track causing it to return to nature, as seen in “it’s on the way out really”. *Social relations* are visible in the prominent role Robert gives to famous individuals (Formula One World Champions Sir Jackie Stewart and Jim Clark) in his justification for the value of the place. *Meaning* arises out of the significant events in the narrative of Scottish motor sport that have taken place at the venue, as illustrated through Robert’s comment that “it’s a famous road anyway for Scotland”. It is therefore not the physical properties of the road alone, nor the memories of and with other people, nor the symbolism of the place for a particular community alone that lead Robert to value this particular environment and act to preserve it. Rather, it is a combination of all three of Cresswell’s elements of place that come together to shape Robert’s values towards the environment and inform his actions.

The other thing that is interesting about Robert’s account of the place he is working to preserve is his acknowledgement of other, non-motor sport narratives that may be associated with the place:

The other thing is we’d like to do is we’d like to construct or not construct but have a heritage site there as well. There’s a lot of heritage really from way back from General Wade’s Road etc to the motor sport thing

This again fits with O’Neill, Holland and Light’s (2008) thoughts on narrative trajectory of place, in particular the idea that many differing narrative trajectories of the same place may have gone before. This acknowledgement of – and respect for – other narratives that may exist of the same places that motor sport takes place in is exactly the kind of outcome I am aiming for with my work, and serves as a reminder that the same places may hold different meanings to different groups of people. What Robert’s account does not demonstrate, however, is how the various values and narratives of stakeholders may come into conflict with one another. It is worth revisiting ranger Duncan’s observation on conflict between motorcycle riders and forest walkers, as this goes right to the heart of place value conflict:

in one forest in particular in Dalbeattie it was a really bad problem, the forest is right next to the town and it’s heavily used by people walking, lots of old people and families and there’s a loch in the middle and they sort of walk

round the loch. But unfortunately we were getting a problem with lots of young lads coming out and using that same circuit as a racetrack

The idea that youths riding motorcycles may come into conflict with those wishing to use a forest for more ‘peaceful’ purposes is hardly an earth-shattering revelation. I make this point as a reminder, however, that whilst Norton and Hannon (1998) see benefit in operationalising the concept of place values in environmental ethics thinking, it is important to remember that place values may come into conflict with each other, something Duncan starkly points out by saying “using that same circuit as a racetrack”. In other words, the properties that make a specific place valuable to one set of stakeholders and shape their actions in that place may also be the things that can bring them into conflict with other groups of humans – in this case, what is an ideal but illegal racing circuit for one group is a pleasant circular walk for another. Given that a genuine environmental responsibility as I talk about it entails respect for other humans as well as for the environment itself, this is a significant issue to bear in mind.

I would like now to extend the concept of nature to think about the topographical properties of place and how they can shape particular values. The topographical properties of place can enhance the pleasure humans derive from it, as illustrated in international co-driver Martin’s account:

I think one of the most exciting stages is Drummond Hill, because it’s, it’s a complex stage, it’s a very, very complex stage with some very, very hairy moments and big drops depending on which way you’re going round [...] I mean some of the stages in Argyll where there’s huge big drops, very often I, I just used to put something at the side window there so that I couldn’t see it, honestly because it does, it intimidates you

What Martin foregrounds here is the complexity of the stage to drive, in particular the sudden and sharp changes in elevation that create fear and excitement for the crews. Whilst the topography can scare the crews and would result in to a serious accident if the car was to leave the road, in Martin’s account this nonetheless adds to his value of the stage or at least makes these particular forests more memorable for him. In Chapter 5 I examined how co-driver Niall was moved to shouting profanities

by the surprising changes in elevation on the stage he was being driven through, yet by the time he reached the end of the stages he was already describing it positively as ‘smooth and flowing’. What Martin’s story above adds to this is an illustration of how these physical sensations become translated by the body into emotions in exactly the way Askins (2009) describes, with these emotional experiences becoming rooted in the locations in which they were initially formed. By looking at the way Martin reflects back on his career as a co-driver, it is possible to see how embodied experiences have led him to form memories of very particular places.

I encountered similar sentiments during a participant observation exercise in Glentool forest in south-west Scotland, where the uncertainty of what was on the

Figure 6.1 – the sharp changes in topography and uncertain road layout that initially made Glentool forest complex so valuable to Scottish rally competitors.



Source: photo by author.

other side of sharp rises in the forest road and the high speeds of the open tracks led the stages to be revered by many drivers and navigators (see Figure 6.1). This in turn led the Glentool forest complex to become a place of significance and value for Scottish rallying competitors – so much so that one famous driver even had his ashes scattered there (Fife, 2009). This is a good demonstration of the role of initial embodied experience in shaping environmental values and actions – linking to Rodaway’s (1994) assertion that the sensuous is the scale on which geographical thought is based,

the examples here of the rally stages of Drummond Hill, Argyll and Glentool illustrate how the kind of embodied experience facilitated by the topographical properties of place can lead to broader positive values being assigned to those spaces. This fits well with Nassauer's (2008) view that landscapes that attract the admiring attention of humans may be more likely to survive than landscapes that do not - whilst this admiring attention is no guarantee that rally participants will be moved to care for the landscapes they drive through, it is certainly not a hindrance to care.

As well as adding to the excitement of the immediate embodied experience, topography can also add value to stakeholders' experiences in other ways. Sled dog racers Mike and Karen see topography as adding value to their forest experience by adding a level of physical challenge:

Mike: Glendevon's good, it's hard because of the hills in it

Karen: It's good, really good for the training

Mike: We used to take, we used to hook them all up to the quad bike, and you could, when you could use the engine you could vary the type of training you give them, you could make it as hard for them, or as easy for them as you want

Rather than adding excitement to their mobile experience, the topography of Glendevon forest is valuable for Mike and Karen in that it allows them to practice racing under hilly, challenging conditions. There is also a curious slippage here as the greatest physical challenge is not for the riders themselves, rather it is for their dogs who must climb the hills – but it is Mike and Karen who see this opportunity for exercise as valuable. In different contexts, deer stalker Brian sees topography as being important from a safety point of view (providing a back stop to soak up stray bullets in the event of the stalker's bullet missing the deer). Orienteer Laura explains her favourite orienteering course was “really interesting because there were few features – it was mainly rock – there was no vegetation so it was much more difficult to navigate. The altitude also made it interesting for breathing”, another angle as it is the *lack* of features that adds to the navigational challenge of orienteering.

Topographical features and physical properties of landscape, then, can fulfil many of the values and preferences stakeholders have for their mobilities.

As to how the topographical properties of landscape may relate to environmental values and practical action, the examples of Glentool forest from rally driving and Glendevon from dog sledding show that the physical properties of places can in themselves give rise to positive place values. If a place is seen as valuable to a particular group of stakeholders due to the opportunities for particular kinds of mobility it affords, then there is potential for groups to alter their behaviour towards the environment so that they can continue to access the places they value. In other words, if the landscape is able to give participants the kind of experience they see as valuable, then they may be more likely to work to reduce their negative environmental impacts on that landscape so that they may continue to use it into the future.

The role of aesthetics in place value should not be overlooked either. Particularly in the context of rally driving, images of the landscape are used to construct a sense of place and in particular to differentiate between different forests, all of which may seem broadly similar due to the manner in which they are constructed. Film producer Greig talks about how to construct a sense of place:

You use erm a little bit of scenery to, to whether it's the town they're starting in, or whether it's erm, at the beginning of the programme you, a little montage on the local area, you can shoot that during your recce erm just to bring it together. When I was used to do the World Championship with Barry Hinchcliffe we used to, famously the editor would turn round and say 'here we go, more churches' [...] Everywhere we went we filmed churches all over the world. Whether you were in Corsica or Monte Carlo or anywhere at all you know, you were, you'd be going around filming churches and old people etc

Greig draws on the natural landscape and especially local architecture to construct a sense of place in the stories he tells of car rallies in his television programmes, thereby situating the story of the event within a specific location. Indeed, live television broadcasts of a large Scottish rally on an international satellite television

channel played heavily on this notion of a distinctly ‘Scottish’ landscape, spending much time showing lochs shrouded in mist, rivers flowing through valleys and open, expansive landscapes in between bursts of rally action. Helicopter shots in particular were used by the channel to show the competing cars travelling through this landscape, which seems to have the effect of situating the cars very much within this distinctly ‘Scottish’ landscape (see Figure 6.2 and VIDEO CLIP 33). This fits well with Saito’s (1985) view that many incidents of aesthetic appreciation are based on a combination of the sensuous surface of an object and its associated properties. In this case, what might make certain locations attractive to the rally participant or viewer are the properties of the Scottish landscape in itself, but also the wider idea of this being a symbolic location and an appropriate landscape for rally driving - a location where nature is ‘up to the challenge’ of having cars drive through it at speed. What it also hammers home again is that place matters in the motor sport experience, linking in to the thoughts of Merriman (2006) on the importance of taking time to think about the spaces in which automobility takes place. Within the motor sport world view, there seems to be an importance of differentiating between the characteristics

Figure 6.2 – use of Scottish landscape in television coverage of rallying.



Source: http://videos.eurosport.com/irc/irc-rac-msa-ra-day-2-1_vid151719/videos.shtml, accessed 25/05/2011.

of different places and their associated properties rather than merely seeing different environments as providing varying technical challenges.

This idea of the environment having to seem natural in order to be part of a valuable experience for participants is not limited to rallying. In the section on the forest landscape I discussed the views of trail designer Steve and landscape architect Simon on the ‘naturalness’ of human interventions at some length, so I do not wish to repeat myself here. All I will do then is reiterate the key points of Steve and Simon that in order for human interventions in the landscape – be it at the very small scale of a jump for mountain bikers to ride off or at the much larger scale of a whole forest plantation – to be of positive value to people, there is a need to make these interventions look as if they were part of nature itself. As well as relating to the desire for authenticity that I discussed earlier (cf Cater and Cloke, 2005) I would like to add here that this perhaps shows a desire to challenge nature alone in recreational mobility and not the human interventions in it.

Thinking towards how the concept of place can link in explicitly to greater environmental responsibility, many participants spoke about having an intimate and localized understanding of the places they moved within. Student Laura, who takes part competitively in both orienteering and navigational rallying, discusses the complex navigational ‘clues’ that must be solved to find the correct route on navigational rallies:

I've only ever had the time for local club ones, but they are rarely straightforward - we have some very, very interesting ones because the guys that who organise them have been organising them for about twenty five, thirty years so they make up their own route things. So like my Dad did one with a Tunnock's bar and the fact it's made in a place called Uddingston and you had to work out that he was wanting you to look at the word Uddingston, considering there's a whole load of other words on the Tunnock's bar, and then realising he wanted you to exchange the letters for the grid reference and get the route

The navigational rally clues Laura talks about here are based on a very specific understanding of place gained as a result of a long, sustained and intimate

engagement with the area in question. Due to the length of time the navigational rally organisers have spent in the region – here the west Lake District – they have an intimate understanding of the road networks and cartographic representations of their area that allows them to produce trivial and cryptic navigational hints. The point “they make up their own route things” further highlights the situated nature of this knowledge, in that the type of clues the organisers produce are unlikely to be found in contexts out of the area their car club covers (see Figure 6.3).

Figure 6.3 – sample of navigational road rally clues used by Edinburgh University Motor Sport Club on an event in East Lothian in 2010.

B2 to B3

If B2 is White then pass 1 church with spire

If B2 is Yellow then pass 2 churches with spires

B3 to B4 IGR

If B3 is White avoid 423686, 406672, 394653

If B3 is Yellow avoid 422687, 405674, 398651

Solving these clues to find the correct route requires only the use of an Ordnance Survey map. However, intimate knowledge of the area gained through regular competition in the area helps to solve the clues, in that the ‘correct’ option in each case takes the crew down a section of road regularly used by the car club.

Less cryptically, embodied knowledge from sustained engagement allowed Duncan to pinpoint where a photo shown to him during an interview was taken:

And then this one, well that is at Ae, I recognise that stump! [...] Yeah, pretty sure that is the last tree coming round before you drop off to the fields just at the back there. Might not be, might be wrong but it looks like that route coming down there

It can be argued that an intimate knowledge of place as illustrated in the preceding two quotes does not necessarily translate into care for the environment, but I would

argue it is certainly a major contributing factor. Douglas Harper (1987:167) explains what I am getting at perfectly with his study of the small-town engineer Willie when he notes that:

Because Willie lives close to natural processes, he understands them. Although he works primarily on machines, his understanding carries over to the natural settings where the machines are used. Human needs, technology and the local environment thus contribute to evolve in relation to each other.

Proximity to natural processes and a sustained engagement with the environment can help to develop an understanding of place, with Light (2001) arguing in the context of urban environmental ethics that experience of how hard it can be to rectify human damage to the environment may make humans less likely to damage those environments in future. Further, McShane (2008) cites the distressing effects sudden change to environments we know can have as an illustration of the role of place values in environmental ethics, and Cheney (1987) advocates – albeit in a deep ecological context – the role of proximity in care for the environment in that it is practically easier to care for environments that are spatially proximate. Place values, then, can have a significant role in shaping humans’ environmental values and moving them to act towards those environments in certain ways.

6.2 Identity work

The second area of environmental value shaping and performance that I want to look at is the role of identity work. This will to a certain extent focus on ecological identity in the sense that I consider stakeholders’ relations to the natural environment and the practical significance of these relationships (Clayton and Opatow, 2003). Clayton and Opatow hold that the relationships people have with nature play a key role in shaping their ecological identities, hence the value in looking at relationships to nature if one is to understand how ecological identities are shaped and performed. Following Light (2000) and the idea that ecological identities may be most effective when linked to other identities, however, I will also pay attention to how participants talk about non-ecological identities shaping their relationship to the natural environment.

A good place to start is the relationship between ‘public’ and ‘private’ identities. When discussing motor sport and the environment in a work setting, a number of Forestry Commission employees spoke of the environment in relation to their professional roles. Consider ranger Duncan:

the Forestry Commission being a government agency, we have lots of remits. The Scottish Forestry Strategy is our bible. That’s the erm, that’s what was put together in 200 and erm 7, I think it was, no it wasn’t 2007, I forget which year it was but there’s this Scottish Forestry Strategy which is basically how Scotland’s going to manage their forests and what they’re going to do. And so Forestry Commission as the government agency for forestry we have to make sure we’re using that to its fullest extent

And landscape architect Simon:

[i]f you were to look, and I recommend you do, at the Scottish Forestry Strategy if you look at the objectives that we’re now after, and there’s a very nice little summary of those, you can actually see that we’re now in a game of forests and woodlands for multiple benefits. So there’s not just one circle we are trying to square, they are numerous

The nature of Duncan’s work is therefore informed by a public, governmental document, with language such as ‘bible’, ‘remits’ and ‘make sure’ showing the responsibility Duncan has in his work in the environment to follow the principles of this text. Similarly, Simon’s view of woodlands is in the interview context at least expressed predominately in relation to the Scottish Forestry Strategy – how Simon values and acts towards the environment is a function of this. Both Duncan and Simon, then, perceive of the environment through the lens of their professional identities as ranger and landscape architect respectively.

Nevertheless, the professional identities through which stakeholders value the environment are not always completely distinct from private identities. Hydén and Bülow (2003) suggest that within one discussion, research participants may speak through a number of different identities over the course of their talking, something aptly demonstrated by charity climate change volunteer Brenda. During the course of

discussion, her views on motor sport are expressed firstly through a ‘professional’ voice:

I think to say it's a problem is, is too negative because erm there are many different kinds of sports that, that use erm alternative, that use energy erm that are going to emit some kinds of pollution. Erm motor sport is the most obvious, erm but like anything if we can work with those that sort of detract from our message a little then other messages will get through and er, who knows there might be a Formula One on green fuel one day!

Then later on through personal experience from a non-work context:

I, To be honest I look at Formula One and I think yeah, I mean there's so much skill involved, training, the money, the sponsorship and people enjoy watching it and you can't deny any of that. But I think god, you see, and I was at Monte Carlo once, I didn't want to be there but I had to be there, and you know the smoke that rises off. And you think god and there's me turning my engine off at traffic lights, why bother you know?

Brenda's views on motor sport – that it is an activity fundamentally destructive to the environment but one in which people invest a complex set of values – are expressed through both her professional and private identities. The concept of motor sport is a damaging activity to the environment comes across first of all through the idea that it runs contrary to the philosophy and message of Brenda's employers. This is subsequently reinforced by Brenda's personal experience of being at a race and seeing the smoke rising off the cars, however her view of the complexity of values in motor sport is also tempered by this personal experience of seeing the cars ‘in action’ and gauging the skill involved. What there seems to be then, is a complexity in the way stakeholders, even those with a professional relationship to the environment, value nature. Rather than a distinction between thinking of the environment as a consumer in a public context and as a citizen in the private sphere, as Sagoff (1988) suggests, individuals world views appear to be the product of professional relationships *and* personal embodied or contextual experience.

Following on from this is the multiplicity of identities that may be at play simultaneously. University lecturer and classic car enthusiast Robert describes

himself as interested in “anything to do with cars – petrol head [...] a nice diversion from academic work” whereas former stockbroker and retired rally driver Donald explains his motivation for taking up rallying:

that's really why I was in motor sport. It was an outlet from my business life, and a huge amount of people, [a close business associate] is a perfect example, [he] does it because it's an outlet, you know it's him against the car and the car's a dumb animal

In opposition to the previous quotes where personal and private identities seem to come together to value the environment in the interview setting, Robert and Donald very clearly make a distinction ‘in the field’ between their professional identities and their recreational identities as rally enthusiasts. There is thus the possibility that although professional and private identities can come together to shape the way people reflect on valuing the environment, stakeholders’ perceptions of nature may shift depending on what kind of activity they are pursuing. Indeed, orienteer Laura speaks explicitly about the different things she values in nature when either orienteering or fell walking:

I went off orienteering for a while because I just wanted to walk it and enjoy it so fell walking was sort of my preferred thing you just get to enjoy for what it is, you get to see the wildlife where orienteering takes you into terrain you wouldn't ever have gone into otherwise. So that's quite unique, but you would never have gone into that rhododendron bush had there not been a control in there

Laura enjoys the intrinsic beauty of the landscape and the chance to see biodiversity at a more sedate and reflective pace when fell walking (so much so that it put her off orienteering for some time), but also values moving through the less obvious features of the landscape that the orienteering course takes her into. As to how this and the examples of Robert and Donald ‘matter’ in terms of thinking how people come to value the environment and act in certain ways, these extracts serve as a reminder of the complexities of environmental valuation. Building on the complex relationship between public and private identities I mentioned earlier, there may also be complexity between different recreational identities. For instance, the way Donald relates to nature when driving his rally car is not only the result of the features of the

rally course he may value, but also a function of his desire to ‘escape’ the pressures of his day-to-day job as a stockbroker, both in terms of using a different set of skills and also taking himself to a completely different location. If the aim is to get under why stakeholders might persist with practices fundamentally destructive to the environment, it is therefore important to think through the multiple relationships with nature individuals and groups may hold and to consider how other activities they take part in might shape their overall environmental values. That is, developing a more holistic picture of individuals’ world views in order to understand why they may be moved to continue with environmentally damaging practices.

Indeed, differing and multiple identities do work together in practice, as many participants discuss both explicitly and implicitly. Designer Steve expresses his multiple identities most clearly and consciously:

it's very hard to switch off from seeing the problems. So I don't enjoy particularly, I've done riding in all my own trails, because all I see is the work that's awaiting me to get planned

Deer stalker Brian also explains how he sees his multiple identities coming together:

I sit on the Access Forum as well so I know that side of things, and we know that the most common suspensions in woodland situations are for rallying, erm but no-one has ever sought a suspension erm for deer management purposes, because, de- because deer management takes place, you know, 365 days a year whatever

Here, Steve admits he cannot view the environment in a recreational context (as a mountain biker) without his professional identity (as a trail designer) informing the way he views the landscape. Features that other riders may swerve to avoid or might not even notice are to Steve “work that’s awaiting”, providing a very clear illustration of how information or understandings gained in other contexts remain with people as they move through the landscape in different contexts. For Brian, being a member of the Access Forum allows him to see information on the access needs of a wide range of stakeholders beyond deer stalkers, thus arguably giving him a greater understanding of the needs of other land users and an enhanced awareness

of areas of potential conflict. The way Brian thinks of the environment reflects this, especially the idea he reiterates that deer stalkers are not the sole users of the land and that there is a responsibility among stalkers to minimise conflict.

For Steve and Brian, then, the multiple identities they possess come together in very apparent ways, meaning that when they view the environment through one ‘identity’ (for Steve, as a mountain bike rider, for Brian as a deer stalking manager) they bring with them the knowledges and ways of sensing the environment from other contexts – in the case of Steve, his job as a trail designer; in the case of Brian, his role on the Access Forum. Identities can, however, work together in less action-driven ways, shaping the way stakeholders think more broadly about the environment as well as the way they act. When farmer and champion rally driver Bill talks about rally driving and environmental issues in the participatory project, for instance, both identities speak when he expresses his view:

I don't know, they tell us one thing one day and then another the next about the environment. I mean, on the farm we've got hay bales, and first of all they were telling us to take the plastic off we were using to wrap them, now the EU are telling us to put the plastic back on again, some different environmental directive.

What seems to be different about the way Bill brings in his professional identity is that unlike Steve and Brian, Bill does not explicitly say how his other identities shape his relationship to the environment or how they lead to a particular kind of action when he goes rallying. Rather, his experience from farming slips in anecdotally as a way of qualifying his standpoint towards the environment in a motor sport context. Similarly, Donald, a retired stockbroker on the rally organising committee expresses his belief towards environmental responsibility that:

there's got to be a clear audit trail. I mean, people have got to be able to see how the money they put in the tin translates to more trees being planted or whatever. Ideally the money should go to somewhere close to home where we can have a clearer link to the environment

The phrase ‘audit trail’ here and the continued value of face-to-face contact (being ‘close’ to the trees) again show a close if possibly unconscious link between the professional identity as a stockbroker and the recreational identity as a rally championship organizer. The way the environment is perceived here seems to be shaped by the idea of audit trails and clear links between one factor and another, even if the participant does not make explicit reference to this in his speech. What these two quotes from the participatory project illustrate is that even if stakeholders do not make explicit mention of the different identities they may hold, this does not mean these multiple identities are not shaping their view of the environment. If one is to understand how individuals come to perceive and value the environment, then, careful attention needs to be paid to the multiple identities stakeholders may hold. There must also be a continued acknowledgement of the possibility that different identities may work together to shape an individual’s view of the environment at any one time.

In terms of how this links into existing theory, it serves as a further reminder of Light’s (2000) suggestion that ecological identities are perhaps most effective when working in conjunction with other identities. The reason I say this is that the above extracts illustrate that different identities *do* often work together in practice, and it is usually not one identity alone that shapes the way an individual acts towards the environment. It therefore figures that if Zavetovski’s (2003) challenge of sustaining ecological identities is to be met, an ecological identity is best taken in conjunction with the other identities that shape an individual’s world view.

The last dimension of identity work and its relation to the environment I want to touch on is that of time, in particular changes in identity over time. I talked in Chapter 5 about time in rallying and the idea that past experiences shape the way crews act in the present as they strive towards a future goal of reaching the end of the rally safely and quickly. Now I want to take this concept of a narrative trajectory of time and extend it to the people that do rallying and the environments they do it in, and I want to argue that what participants do over time shapes the way they engage with and act towards nature. Just as the participants’ voices changed from

professional to private sphere and from one type of mobility to another, so their identities appeared to shift over time. Camera operator Greig gives an excellent example of this:

I did a little bit of stage rally driving but I couldn't afford it so I became a co-driver [...] My brother was at the time about third in the Scottish Rally Championship. And I was filming him at the time because that was my hobby [...] I formed a company [gives company's name] in 1981, May 1981 I registered it. And by that time I was running a garage business

For Greig, the way he engages with the environment – and thus the potential for the kind of environmental values that may be shaped – changes over time. Starting out with being in control of his own rally car and driving through the forests, Greig progresses to being a co-driver and giving information to the driver from maps and descriptive notes. He then moves on to looking at the environment (especially the vehicles moving within it!) through the lens of a camera viewfinder, first of all for pleasure and subsequently with the aim of producing television programmes for financial gain. All of this while he is also developing his understanding of how the machines that move in the environment work, running a garage business. In this it is clear to see how the multisensual nature of Greig's engagement with the environment changes over time, giving potential for different values to emerge.

Path designer Keith similarly talks about a change in professional identity over time, going from being a conservation volunteer to a ranger and then getting into the management ranks of an access organisation. Keith himself notes that as his career has progressed, the amount of time he is actually able to spend 'in the field' helping with the building of paths decreases – again, the nature of his engagement with the environment has changed over time. What is particularly interesting in Keith's account is the way his environment-related talk changes as he reflects on different stages of his career. He starts out speaking of the environment as a source of personal satisfaction when reflecting on his time as a ranger, but then goes on to think of the environment in terms of 'fitness for purpose', sustainability and economic efficiency when discussing his current job. In the professional sphere at least, the changing

nature of Keith's work to some extent affects the way he values the environment and the way he reasons towards his actions in the environment.

Although the examples provided by Greig and Keith show the potential for changes in values over time depending on the nature of engagement, it is important to remember stakeholders do not necessarily forget what they have already experienced. Astronomer Malcolm, who uses Scottish forests for stargazing due to their low human light levels, brings his professional training in environmental interpretation to his current work as a facilitator for stargazing:

my origins are, are working in [environmental interpretation], and then I sort of professionally got trained in museums, because museum sort of do interpretative type work [...] I mean I don't tend to use the language that people working in interpretation use because people here have a slightly different, er, way of doing things. But basically in a way what we're doing is interpreting the night sky, and everything that we do is, is little ways that we've cooked up of doing that

The way Malcolm goes about conceiving of the night sky is a product not only of his current role as a facilitator, but also of his training in environmental interpretation. His job at present is to help novice stargazers begin to understand the features of the night sky, however in doing this he brings with him the skills and views developed in the past. There is another interesting angle here in that Malcolm's past experiences are being brought into the present not only to inform the way *he* perceives the environment, but also to shape the way novice stargazers go about sensing the night sky. In any case, the key point is that although identities and thus ways of engaging with the environment do change over time, it may not be possible to 'un-learn' ways of sensing and valuing the environment that individuals were previously accustomed to. For Malcolm, the features he looks for in the night sky to help novice stargazers get a handle on an unfamiliar environment – the things he sees as important and valuable – become important to him through a combination of what he needs to do at present (engage with novices) and what he has learned in the past about how to do this (the skills and tools of environmental interpretation). There are links here to ideas of personal narratives, especially Stanley's (1992) thoughts on the relationship between past and present and the way the past is reconstructed in light of present

evaluations and conjectures. In combination with O'Neill, Holland and Light's (2008) idea of narrative trajectory of place as a way to deliberate round environmental conflict, personal narratives can be just as important in understanding how people come to value the environment in the way they do and why they may persist in destructive or ethically objectionable practices.

6.3 Relationships

The third area of environmental values I wish to look at is the role of relationships to other humans. As well as individual experiences, relationships to other humans have a vital role to play in shaping values, also motivating in people to participate in certain practices. Indeed, memories shared with other people can form a major part of the narratives associated with place and subsequent place values. Returning to the example of international co-driver Martin that I discussed in the previous section on place, relationships to other people also play a vital role in Martin's memories:

I think one of the most exciting stages is Drummond Hill, because it's, it's a complex stage, it's a very, very complex stage with some very, very hairy moments and big drops [...] [gives name of famous British driver] hadn't been round that stage before. So we just came up to it, took off, and of course it just dropped straight down, it's bloody hell! So I'll never forget that moment when [gives name of famous British driver] said that or words to that effect and er it were really was, it really felt sensational

Such relationships are also apparent in former driver Donald's stories:

we got a big head start and then they were all trying to catch up with us, Gordon Boyd in his, in his er ex-works Manta. And I was leading going into the last stage. And a guy called Tony Jannetta who had a G3 Escort, from somewhere he produced a set of Dunlop A2 tyres

These extracts illustrate the role of social value and relationships with other humans in Martin and Donald's continued participation in this form of motor sport. In Martin's case, it also shows how interpersonal relationships play a role in forming memories of the places he values, something that might not become apparent from observation of the car in action alone. For Martin and Donald, what is of value is not

solely the environments they drive through or the cars they compete in, rather it is the people they do it with – in particular those renowned within rallying circles for their driving skills. Rather than out-and-out speed, Martin’s narrative of involvement in motor sport in particular is one of relationships with people extending over time. Similarly, the relationships Martin and Donald have with other people form part of the memories they have of particular places, and shape how they come to value these places. That is, the value lies not just in the topographical properties of the place, but also in the memories formed as a result of interaction with other people. In understanding why rally participants value particular locations and have a desire to continue competing there, the relationships they share with other people and the personal narratives of place this gives rise to must be taken into account alongside ‘grander’ narratives of motor sport in these places.

As discussed in the literature review a ‘genuine’ environmental responsibility in this sense entails responsibility to other stakeholders using the environment and respect for their values as well as respect for the natural environment in its own right. Care for the environment may arise out of a sense or duty of responsibility to other humans and their values in a manner not dissimilar to O’Neill’s (2007) thoughts on care for the environment via proxy. Conceptions of responsibility may be legal or grounded in wider ideas of what is appropriate behaviour, both of which were expressed by participants in this study. As far as more formalized responsibility goes, Forestry Commission manager Alistair makes his duties quite clear:

our forests are managed for a range of public benefits, so there’s more traditional thing to do with forest management and timber production, but we also manage quite a lot of forest for wildlife habitats, for the benefit of species and the interest of the public - the kind of nature conservation things. We also do quite a lot in terms of informal access and then some more formal access through the provision of facilities for local people, day visitors and also tourists

Alistair’s position as a manager for a large public body means he is responsible for balancing the interests of a wide range of stakeholders, all of whom are seeking to use the forest for different things. As a representative of the land owners, Alistair has a responsibility to manage the forest in terms of access provision and also facilitating

informal access, so the way he thinks about the environments he ‘manages’ relates to the responsibility he has to fulfil the values and preferences of other land users. This comes across well when he goes on to speak about the provision of roads in forests for rally driving:

rallies have been a traditional thing. It's built up over a number of years, so basically we make available routes that are best suited really for a number of reasons for rallies. Obviously the rally folk want something that's challenging and exciting. But these routes aren't always available because of constraints. These could be operational constraints, which as I mentioned include timber extraction. But it could also be nature conservation and recreational constraints or in some instances some of the access roads are restricted legally

Here, Alistair’s view of the forest environment – in the professional sphere at least – is informed by an acknowledgement of the responsibility he has to different stakeholders and their values. Although he does not talk about any potential financial or social benefits of rallying, he does concede that “rallies have been a traditional thing” and that forests are a “challenging and exciting” place to drive. As a result of this, Alistair’s view of the environment is shaped by his professional responsibility – be it legal in the case of access, economic in the case of timber extraction or institutional in the case of the tradition of allowing rally driving - to balance the values and preferences of different forest users, including to a certain extent those that may be more damaging to the forest. In other words, the relationship of responsibility Alistair has to different stakeholders gives rise to his view of the forest environment as a site of multiple mobilities and narratives.

On the other hand, deer stalker Brian discusses how his relationships of responsibility to other deer stalkers can inform the kind of experience of the environment *they* have:

we're responsible for, I suppose the members see it as providing membership services, so any problems that they have with respect to firearms shotgun, airguns, ownership of and use of we're involved with. Erm obviously got a responsibility to make sure that our core principles are sort of followed and, the main objectives I suppose are to make sure that people have got somewhere to go shooting, something to shoot with and something to shoot at

Brian's responsibility to resolve issues of land access/ownership and manage animal populations means that his actions and views have the potential to shape the type of environmental experience other deer stalkers have. That is, by helping to determine where people can go to shoot and what species they are able to shoot at, Brian's views and actions can alter the nature of the deer stalking experience and thus inform the kind of environmental values that may arise from it. So, adding another dimension to O'Neill's (2007) thoughts on care for the environment via care for other people, Brian is perhaps able to exercise responsibility to environments not spatially proximate to him as he is in a position to influence the way other people act towards the environment.

Similarly, motor sport rule maker Tom believes "noise is an inherent and integral part of motor sport [...] but we do need to look for our neighbours and it's what's reasonable", thus a sense of responsibility to motor sport non-participants works to reduce the noise – and thus alter the nature of the initial embodied experience – of motor sport. As well as being led by Tom in his position as a rule maker, though, the change to the multisensual motor sport experience is bound up with larger-scale ideas of responsibility to other stakeholders. The idea of responsibility to non-participants therefore works to alter the practices of all motor sport participants – but with comments such as "we've got to be seen to be doing something" coming up time and time again in the participant observation, it is important to remember that a large part of this push for responsibility might be grounded in a desire to continue taking part in motor sports in certain locations rather than an outright sense of duty to other stakeholders.

Relationships of responsibility can thus inform environmental values and actions in at least two ways – by leading the responsible individual to take into consideration the values and preferences of others on one hand, and by shaping the kind of environmental experience that participants may have on the other. Given my overarching aim of working towards 'genuine' environmental responsibility in motor sport, it is important to think through these relationships of responsibility not just in

terms of how they may change practice, but also how these ideas of responsibility might feed back into individuals' broader environmental values. As McShane (2007) believes, although there is an urgent need to act practically on a number of environmental issues, there is room alongside this to explore how we feel about the environment and what we think an appropriate ethic of care for the environment should look like – in other words, there is value in thinking beyond action and considering people's relationships to the environment. To this I would like to add that there should be time to think about how others feel about the environment, and about how one set of stakeholders' practices may come into conflict with the values of others. The preceding extracts have illustrated how conceptions of responsibility can work to shape perceptions of the environment, so study into a 'genuine' environmental responsibility that considers other human users of the environment as well as nature itself needs to think about how relationships of responsibility can act to shape environmental values and actions. In other words, how do claims to responsibility inform the way stakeholders reason to and from their actions?

As well as shared memory and conceptions of responsibility, interpersonal relationships can also affect individuals' environmental knowledge and understanding. What I mean here in particular is that when environmental damage or environmental issues are discussed between people, individuals' perceptions of how the environment 'works' can be reinforced or reformulated. A good example of this comes through in the participatory project when Bill, Chris and Jim discuss environmental responsibility and climate change:

Leslie: So it's been suggested that we try to work instead with an organisation with closer links to Scotland, to kind of try to give a stronger link between our practice and the damage we're trying to rectify

Bill: How can it be global warming when someone told me the other day we're getting snow in September? How can there be more snow if there's global warming?

Chris: That's weather, Bill, not climate change. They're different things apparently. Just because it's snowing doesn't mean the polar bears aren't going to die

Jim: Yep, that's why they call it climate change now instead of global warming

Bill questions how a heavier than usual snowfall can dovetail with increasing global temperatures, and Chris corrects him by elaborating how (albeit in a somewhat mocking tone) extreme weather events can still occur under increasing temperatures. Jim then adds his observation of a shift in language from 'global warming' to 'climate change', the implication seeming to be that this is a political move to ensure climate change and its associated funding remains in the public consciousness. What appears to be going on here is that information gathered from the media or from informal conversations is refined through further discussion, with uncertainty and scepticism being reinforced as part of this process. For instance, although Chris points out the difference between weather and climate and Jim notes the shift in terminology, they use these uncertainties as a means of justifying their commonly held scepticism towards climate change.

Interpersonal relations can therefore shape an individual's view of the environment and also act to reinforce existing views on environmental knowledge. Relationships with others can also, however, help in the construction of environmental problems – what I mean here, after Hannigan (2006), is that something starts to be perceived as a problem when it is discussed between individuals. Forest ranger Duncan describes how the practice of illegal dirt bike riding in Dumfries and Galloway came to a stop:

we really did focus on developing this forest community partnership, which was made up of local people who had an interest in the forest. And we got them actually sort of involved in doing more things in the forest and actually creating a formal group to get together. And when they realised their forest was being disrupted by these idiots, they kind of thought 'oh we need to do something about it'. And because they actually lived in the town they knew, they could work out very quickly who it was, and they could go and talk to their mum or dad and say you know, blahblahblah

The idea of motorbike riding as a problem seems to develop through the strength of the forest community partnership. It is through the community working together that the idea of the motorbike riding being a problem really gathers momentum, and it is through a form of community policing and reporting that the problem is worked

round. Namely, the identification of those responsible and policing through discussions with their parents. Path designer Keith speaks in very similar terms of community feelings about dirt bike riders in North Lanarkshire, where it was the discussions between community members and shared sensing of environmental damage that gave rise to claims to motorcycle riding as an environmental ‘problem’. In the same way that Ellis and Waterton (2005) explore the informal discussions and networks underpinning the monitoring of biodiversity by enthusiasts in the United Kingdom, this example reinforces the value of looking at informal interpersonal discussion in understanding how claims to environmental damage are developed and made.

Conversely, sharing of knowledge can be a force for good in increasing environmental awareness and working towards practical sustainable futures. Indeed, Smith (1999) believes that the role of interaction within ‘communities’ is widely regarded as being a crucial part of moral development. Whilst not making explicit connections to ecological awareness, stargazer Malcolm nonetheless believes that by sharing his knowledge with novices and taking his teaching skills into ‘the field’, he is able to help novice stargazers feel more connected to the environment:

when you understand how the sky works from one of these star charts this is good for life, you’ve, it’s perm- you know, the sky does not change on the timescales that we’re, we’re working on [...] I wouldn’t, wouldn’t quite call it a life skill because I’m not sure you need it to survive, but it’s good for life, and that’s a, it’s kind of quite a fundamental thing about people feeling connected to the sky that they know how the sky works

Malcolm seems to see the value of his work in helping people to feel more ‘connected’ to the night sky and assisting them in developing an understanding of astronomy. Although there is not an explicit ecological angle to this, by sharing his knowledge Malcolm is perhaps helping others to get ‘closer’ to the environment, linking in to Harper (1987) and the possibility of understanding ecological processes and acting accordingly through proximity. Indeed, the theme of darkness also relates Malcolm’s practice to the work of Terry Gifford (2003) on taking students out into rural areas in the dark to help them think through their connections to nature – again,

Gifford does not use this as an environmental exercise in itself, but then goes on to tease links to nature and ecological awareness out of his students by reflecting on what they have done. Even away from education, the sharing of knowledges can help to attain practical outcomes by recognising the multidisciplinary nature of contemporary environmental problems (Paavola, 2008), as illustrated by the network Steve is in the process of setting up:

we're interested in any form of access and any information [...] we don't want membership to be a paid thing, we want information from people. That's what we're looking for you know, it's an information sharing network. What we need to know is that the information we give, I mean there'll be a huge disclaimer on it and we're not saying this is the way to do it, we're saying this is good information

The network Steve is setting up aims to draw on a range of different knowledges and disciplines in order to provide far-reaching information on outdoor access provision in Scotland. The idea is to bring together social science ideas about how people use paths and also more 'hard science' examples from civil engineering about how to execute access provision in practice. This is an excellent illustration of Paavola's (2008) call for polyvocal responses to environmental issues and fits in well to what I am aiming for – that is, a form of environmental responsibility that pays attention to the broader values behind practice but also acknowledges the materiality of the 'real world'. As to how this sub-section on the sharing and discussion of environmental knowledge fits in to the overarching aims of my work, it helps to think through two things. One is how something becomes classified or viewed as a problem – in other words, how do environmental conflicts arise, what values are at play and how can outcomes amenable to all be achieved? The other is the question of how people are moved to act to work towards outcomes for conflicts. As Duncan's example of the community group responding to motorcycle riders shows, it is through the sharing of knowledges and discussion of phenomena that people can start to make claims to environmental damage and make moves to counter the cause of this damage. In light of my grounding in environmental pragmatism, this focus on how discussion and sensing of damage translates into practice is a key point to keep in mind.

The final point to make with regard to interpersonal relationships and their role in shaping and performing environmental values is the continued role of individuals at different scales. Even when negotiating or cooperating with large governmental organizations, many participants speak about the individuals with whom they have worked – very often it was the role of these individuals in making progress that was praised. Fourcross rider Dave found one individual's work vital in his efforts to establish fourcross in the UK:

we spoke to obviously various different people within the Commission, and then we kind of found erm one guy that kind of wanted to sort of champion the cause for us a little bit, you know. And he's involved in Health and Safety as well as other bits, so it was kind of relevant as well, and he's helped us enormously since then [...] one time we went down to south Wales and it turned out to be not, not very beneficial for us, because we discovered the trails weren't rideable. But we would have never found out had we not had the help from them

The different views and values of individuals can also, however, be a barrier to certain mobilities in some places. Field archer Bob:

Bob: What we find, it's very strange, each district seems to work independent of the others, you can get on fine with one forestry officer or the conservator somewhere else, er the conservator. But er they, they don't seem to have a, a common policy, they just work bits and pieces.

Leslie: Aye, I can, I can understand the situation, you get one ranger, one officer who's more amenable to what you're doing

Bob: That's right

Leslie: Just for whatever reason

Bob: The one at Dunkeld got, the one at Dunkeld told us that he had a set of rules for field archery

For both Dave and Bob, it is individual people within the Forestry Commission that shape the kind of engagement with the forest environment they are able to have. In Dave's case, finding an employee who was interested in Dave's plans and who had knowledge of Health and Safety legislation proved invaluable, and by Dave's own admission was a key factor in the establishment of UK fourcross. On the other hand,

Bob finds that the kind of archery he is able to practice, and thus the type of environmental experience he has, is very much contingent on the views of the Commission staff working in the district. Indeed, ranger Duncan recognises the value of these smaller-scale personal values alongside the legal responsibilities the Forestry Commission has:

obviously we have a requirement to meet the legal side of things but sometimes it is that kind of personal level, public level perception of things that we need to know a bit more about, so it's certainly useful to find out

Again, Duncan's quote demonstrates the interplay between broader factors contributing to environmental values and the practicalities of laws and regulation that I am trying to think through. It also links to the contribution love and care can play in sustainable practice as well as legal angles, fitting in with Curry (2006) and his view that people will not treat properly whoever or whatever they do not care about. Even in the presence of larger-scale organizational policies, it is at the individual, interpersonal level that the nature of mobilities in natural environments and particular practices can be shaped. This relates very well indeed to Andrew Dobson's (2003) work on ecological citizenship, where Dobson suggests that working with individuals within organizations may be a useful way of getting at environmental responsibility. Even at the organizational scale, the stories recounted by Dave and Bob show that action is achieved by working with individuals within organizations, where some individuals may be more pro-active or amenable than others. In other words, in order to facilitate action for greater environmental responsibility, it is perhaps important to remember that it is the individuals within organizations – in particular *their* values and worldviews - that have a role in making things happen.

6.4 Narrative

I will now discuss the place of narrative in shaping and performing environmental values. The work of O'Neill, Holland and Light on narrative trajectories of place has already been discussed at some length, so instead here I will talk about personal (and organisational) life history narratives. In doing this I will also move the chapter

towards its conclusion by thinking about how these narratives shape action as well as values, and how these actions may be changed. Very often, stakeholders' motivations for continuing with a practice such as motor sport are bound up in their life histories. Former stockbroker and amateur driver Donald:

Well for me it it it was an alternative to what I did er in, in my working life. I was always mechanically minded and always very keen on cars and like most young men speed was important. And I, I came into rallying through association friends I was involved with rallying, suppose if I'd had friends that had been involved in racing, because I was involved with hillclimbing for a while with a friend. Erm but rallying was always, the thing with rallying is from the point you cross the start line you're going until the the point you cross the finish line. And not a lot of motor sports are actually like that, you have big, you have dead gaps in between races and all this sort of thing, that doesn't exist in rallying

Donald's participation in rally driving comes about as a result of a number of factors. First is the idea of rallying as an 'escape' from his working life as a businessperson. Second is the fulfilment of Donald's interest in and understanding of machines, especially his enthusiasm for cars. Third is the reiteration of the broader age/gender stereotype of young men and their desire for speed. Fourth and final is the role of relationships with friends – as discussed in the preceding section – in providing the support and information necessary for Donald to start competing then. All of these factors come out in the above extract and result in Donald starting a career in rallying, but what is interesting to note is the reason he gives for going rallying as opposed to, say, circuit racing. Rather than making any reference to getting out in nature or having an 'authentic' experience, Donald foregrounds the temporal aspects of the rallying experience, in particular the length of time for which one is driving at speed.

In short, the motivation for Donald to participate in rallying comes from a contrast to his working life, his broader life interests, (arguably) his age and gender, the interests of his friends, and the desire for a particular kind of embodied experience. This reiterates the points made in previous sections about the complexity of reasons for why motor sport participants become involved in this kind of practice. If one wants to think about the transferability of this in terms of understanding why stakeholders

persist with certain mobilities in spite of ethical criticisms, a good non-motor sport example is given by deer stalker Brian:

unlike with a lot of people I was quite late to it, I didn't start shooting until I was in my 20s. Erm, and er, I was studying Zoology at Glasgow University, and keen on wildlife, birds and all that sort of stuff, but then I got a bit bored with just looking at things so I started fishing, enjoyed that interaction then just through good chance and everything else I had the opportunity to do some shooting, so, quite enjoyed it so, since then I've done quite a bit. And erm I do a bit of deer stalking when I get a chance, been stalking for about 20 years

As well as serving as yet another illustration of how the nature of engagement in the environment and the potential for values to be shaped can change over time, Brian's story also demonstrates the complexity of factors that lead him to take up shooting. An initial interest in wildlife is coupled with academic study of Zoology (again illustrating the blurring of personal and private spheres in ecological identity work). Despite this personal interest and its reinforcement through academic study, Brian grows bored of "just looking at things" and goes in search of a kind of environmental engagement that fulfils his interests in other ways, first fishing and then deer stalking. This is a significant point in understanding why stakeholders continue with ethically debatable practices in natural environments, because it suggests that what is valued about nature is more than purely its visual or scenic properties – nature is not merely a backdrop for what even ethically debatable stakeholders do in front of it, and the reasons why it is valued are based on individuals' life contexts. Instead, there seems to be a complex set of values bound up with the environment that place emphasis on contextual knowledge and multisensual, embodied engagement. Building on Weston's (1985:316) wry note that "even motorboaters like to see woods", I would use the examples of Donald and Brian to argue that a complicated and sometimes contradictory range of values underpin stakeholders' practice in the environment. As I have tried to illustrate here, personal life narratives can go some way to illuminating what precisely different stakeholders value about their engagement with the environment. What is especially useful here is the analytical purchase gained on how Donald and Brian's values are shaped and how they are motivated to begin participation.

Taking the practical aspects of life history narratives and environmental action further, retired forest researcher Peter makes reference to the original meaning of evidence-based policy. Peter's understanding is that evidence-based policy originated from a term in medicine, where doctors were encouraged to make a diagnosis based on an individual's whole life story and contexts as well as the physical symptoms they were displaying. Whether or not Peter's interpretation is correct is another matter, but his point about life context in individual action and decision-making is an interesting one. Life context is, in fact, explicitly mentioned by climate change volunteer Brenda as she suggests how people's behaviours towards the environment may be changed:

I think ultimately you can't change, people have to have an awareness and they then make a decision from their own agenda from their history from being a child d-d-d-d you know, and then they make a judgment but I think ultimately it's awareness [...] Now if, if I think because there's such a historical agenda in every individual, that I, possibly it's all about awareness and then ultimately they have to make their own decision

Even though she works for a charity concerned with social and environmental justice, Brenda acknowledges the difficulty of affecting tangible, practical change by admitting "ultimately they have to make their own decision." This links back neatly to the points made in the section on ecological identity work and the relationship between one environmentally damaging practice and the broader aspects of an individual's life. If the aim is to think about how stakeholders' practices may be altered and their values informed, then the preceding quotes all suggest the importance of individual life narratives in moving stakeholders to act, even in spite of the broader narrative trajectories (Holland and O'Neill, 2003) that may make particular places valuable to particular people. By making this point, I am sounding a note of caution. Whilst places may have narrative trajectories that can lead them to be valued by different groups of people and can lead these groups to care for the places they value, it is ultimately still individuals that carry out environmentally damaging or environmentally responsible actions – as Rodaway (1994) notes, the sensuous is the basis for geographical understanding. At the individual level, life

history narratives can vary greatly and mix with or even override wider narratives of place. In brief, different people have different and complex reasons for engaging in the natural environment in the way they do, and this complexity can make it hard to reach practical, workable outcomes consistent with every individual's life narrative.

Earlier, I discussed the ways in which the nature of people's practice has the potential to change over time, subsequently changing the nature of their engagement with the environment and altering the potential for different environmental values to be shaped. Now I want to tie this more explicitly into how practical action may change over time, especially in an environmental context. Film producer Greig talks about how the nature of motor sport has changed over time:

I think the 1980s and the British Rally Championship was the best, erm the Group B cars were fantastic. Erm, working with a genius like eh Barry Hinchcliffe was great. Barry and I had a, had a deal, erm at that time he would pay all my expenses plus a thousand pounds an event for the use of my material [...] that was great, I mean that's more than I get paid nowadays and that's twenty years ago

What Greig's discussion demonstrates is the changes in motor sport that have taken place over time. 'Group B' refers to an extremely powerful and expensive type of rally car that was popular in the 1980s until a series of fatal accidents prompted them to be banned. The British Rally Championship was, at the time Greig is referring to, one of the most competitive rally championships in the world, attracting all of the most skilled drivers to the UK to compete. Further, "that's more than I get paid nowadays" is symptomatic of the decline in the amount of money being invested in rallying by sponsors, car manufacturers and television producers. What I am getting at here is that there is an acceptance that the nature of motor sport changes over time, something also illustrated by rule maker Tom and environmental scrutineer Geoff with reference to the now mandatory carrying of environmental spill kits (see Figure 6.4) and noise restrictors. Chapman (2002) makes similar observations regarding the decline of tobacco advertising in motor sport, illustrating that even deeply entrenched practices may reluctantly be altered as a result of shifts in social perception and associated pressures. In other words, although there is some hostility and scepticism

Figure 6.4 – the carrying of environmental spill kits such as this is now mandatory for motor sport competitors in the UK. The kit features equipment for cleaning up small fluid spillages.



Source:
<http://espimages.biz/2386/1/109/53/GPSK55.jpg>,
accessed 17/12/2010.

towards environmental issues within motor sport communities, the constant changes elsewhere in the sport could mean that more environmentally responsible practices in motor sport are (perhaps reluctantly) accepted and adapted to accordingly. This does not mean that further enquiry into why stakeholders persist with practices such as this is not worthwhile, simply that alongside this broader investigation into

environmental values, societal and regulatory pressures may help encourage a shift to more sustainable forms of recreational automobility.

Although actions are carried out by individuals, it is also important to note that organizations themselves have a narrative of engagement in the environment that can change over time. Landscape architect Simon talks about the Forestry Commission and how the idea of landscape character gained traction:

the main principles that were first established really back when, in the 1960s, when Dame Sylvia Crowe was taken on as the first landscape consultant to the Forestry Commission [...] shape is really where erm if you like, forestry, erm, first began to learn the lessons about how people perceive their landscape and how they value their landscapes when the original plantations were carried out in the Lake District, and some of them within the heart of the Lake District, erm as these began to grow and makes themselves apparent, because obviously the preparatory work can be pretty much like a crop in a field, very two-dimensional. But as a three dimensional aspect came

in and people began to see their landscapes, they saw these forests as like a figure on ground

Linking back to the point made earlier and to Dobson's (2003) more general thoughts on organizations as ecological citizens, it is interesting to note that it is an individual within the Forestry Commission that drives forward the idea of forests 'fitting in' to the landscape of which they are part. Nonetheless, what is of importance here is the shift in perception of how forests relate to the elements of the environment that came before them, and even more significantly the practical change in the way trees are planted. Or, to put it in more general terms, there is a greater awareness among one group of stakeholders of their relationship to both other stakeholders and the natural environment they inhabit, with this awareness filtering down to tangible changes in practice. This, to my mind, very closely mirrors the narrative trajectory idea of O'Neill, Holland and Light (2008), in that organizations too – and the people working within them – can have narrative trajectories of engagement in the environment, where ideas about what is an appropriate way to act towards the environment change over time.

Perhaps how all of this helps is to illustrate that the concept of narrative trajectory can be extended beyond place to include individuals, groups or organizations as well. That is, as well as imagining what is the best way to care for a specific place given what has gone before, perhaps it is possible to imagine what the most appropriate narrative trajectory is for individuals, groups or organizations to follow that respects the environment but also takes into account what is valued in their activities. For instance, the example given by Simon shows how the Forestry Commission's primary goal at the time of growing timber was reconciled with broader social awareness of the intrusiveness of forests on the natural landscape, leading to changes in the shapes and patterns forests were planted in. Likewise, Donald's narrative of driving is bound up with ideas of an 'escape' from his working life, an interest in cars and the value of time spent with friends – so an appropriate narrative trajectory for Donald might be one where these ideas are acknowledged but some of the more environmentally damaging aspects are removed. As to how these more damaging aspects could be 'removed', let us consider a rally crew who value rallying in very

fast and challenging forests. The appropriate narrative trajectory for them might be to go to fewer events but select the ones that match what they value. Conversely, for a crew that compete because of the value they invest in building and maintaining their car, the appropriate narrative trajectory might be to continue using that car, running it with old parts that would otherwise go to waste but only attend events closer to where they live. What I am trying to explain here is that paying attention to individual and group narratives of participation can help to identify why precisely certain practices continue, and assist in imagining more sustainable futures where values are fulfilled but some damaging aspects minimized.

6.5 Presentation/Performance

The final thing I want to look at is the presentation and performance of environmental values – that is, how environmental values play out in practice and how they are performed and represented. By doing this I hope to set up the next chapter, where I will think about the forms greater environmental responsibility can actually and workably take and also discuss how this feeds back into environmental values thinking.

First of all, key to stakeholders' valuations of and actions within the environment are texts. Merriman (2005:347) observes the centrality of objects and media to informing ideas about what appropriate ways to behave in the countryside are, noting with reference to encouraging publics to engage with the Country Code that "(a)cts of parliament or executive decisions count for very little unless they can be translated through an array of authoritative or effective media technologies/technologies of government [...] into particular techniques or practices of self government." In my work, documents did indeed play a key role in transmitting particular views on what organisations and the individuals within them deem to be 'appropriate' behaviour in the environment, shaping the environmental values and actions of others as a result. For instance, many stakeholders – especially those associated with the Forestry Commission – draw on official documents to justify their actions and environmental

views. Let me return to the quote I cited earlier from ranger Duncan about how his job is defined, so that I can consider his relationship to documents in more depth:

The Scottish Forestry Strategy is our bible. That's the erm, that's what was put together in two thousand and erm seven, I think it was, no it wasn't 2007, I forget which year it was but there's this Scottish Forestry Strategy which is basically how Scotland's going to manage their forests and what they're going to do. And so Forestry Commission as the government agency for forestry we have to make sure we're using that to its fullest extent

As a document, the Scottish Forestry Strategy therefore plays a vital role in enshrining what the Forestry Commission sees as an appropriate way to “manage” its forests and in setting out what elements of the forest landscape are valuable. Texts are also used in the Forestry Commission to mark out what forest users see as valuable – Simon cites a study carried out and published by the organisation:

if you look at Perceptions and Attitudes and Preference Studies for Forests, predominately people are looking at them as a refugea (sic) for urban, they're looking for the rural, they're looking for peace, for quiet, for nature, for countryside

The publication ‘Perceptions and Attitudes and Preference Studies for Forests’ (Forestry Commission, 2001) sets out the idea that publics see forests as a refuge from urban areas, and develops the notion of forests being valued for their tranquillity and ‘natural’ qualities. How the values of other users are recorded by the Forestry Commission (or, indeed, any groups of stakeholders) is significant as it is through texts such as the one Simon cites that actions consistent with the values of others are shaped. That is, the way Forestry Commission staff try to take into account the values and preferences of other forest users is informed by the texts they have a relationship to – as Duncan so succinctly put it, “the Scottish Forestry Strategy is our bible”. When one is thinking about an environmental responsibility that shows respect to other users of the natural environment and *their* values, it is vital to think about the texts through which perceptions of other stakeholders are formed. How, in other words, do texts help to develop or reinforce particular ideas about what other stakeholders might see as objectionable?

This is something that comes through very clearly in the MSA's Technical Regulations for competing cars. The 2011 Competitors' and Officials' Yearbook sets out the reasons for controlling noise in motor sport thus (Motor Sports Association, 2011:146):

5.71.1. The reason for Silencing (SOUND CONTROL) is to reduce environmental impact and keep Motor Sport running. Environmental Protection legislation has increased the pressure on activities generating noise and Local Authorities have the power to suppress any noise source deemed to be causing a nuisance. Our system of control is acceptable to most Environmental Bodies and must be considered as part of eligibility to Compete in events

The competitor guidelines very clearly lay down the idea that noise is the most objectionable element of motor sport, a view reiterated by rule maker Tom. The phrases "SOUND CONTROL" and "environmental impact" are placed in very close proximity to each other, as if the environmental impacts of motor sport were limited to the noise produced. Indeed, a participant observation exercise to 'environmental scrutineering' at a Scottish stage rally revealed that measuring the decibels emitted by cars' exhausts formed almost the entirety of the environmental scrutineering process. Further, the imperative "keep Motor Sport running" seems to reinforce the idea that noise is the most objectionable aspect of motor sport, citing environmental legislation and local authority powers to justify this statement. The MSA Competitors' Yearbook is therefore a good example of how texts can shape individuals' actions towards the environment and inform ideas of what is perceived as 'bad' behaviour in the environment – in this case, the notion of noise being the most objectionable environmental aspect of motor sport is reiterated.

The MSA Competitors' Yearbook also stands as a fine example of how sensing and classification of environmental problems may develop. Consider the instructions for 'noise testing' (Motor Sports Association, 2011:146):

5.18.1. Measurements will be made at 0.5m from the end of the exhaust pipe with the microphone at an angle of 45° with the exhaust outlet and at a height of 0.5 to 1.0m above the ground.

5.18.2. Where more than one exhaust outlet is present, the test will be repeated for each exhaust and the highest reading will be used. In circumstances where the exhaust outlet is not immediately accessible, the test may be conducted at 2.0m from the centre line of the vehicle at 90° to the centre line of the vehicle, with the microphone 1.2m above the ground.

5.18.3. Measurements should be made outdoors with no large reflecting objects (e.g. walls etc.) within 3.0m (in the 0.5m test) or within 10.0m (in the 2.0m test).

The highly precise nature of the noise testing procedure – 0.5 metres from the end of the exhaust pipe, microphone at 45 degrees, three metres away from walls – creates the idea of the environmental impacts of motor sport as something that can be easily calculated through a straightforward, methodical procedure and controlled accordingly by setting appropriate maximum decibel levels for competing cars. This seems to tie in well with the continuing discussion in the participatory projects of the offsetting of rally car emissions. In both cases, the relationship between motor sport and the environment is discussed as something that can be easily calculated by applying the correct procedure, with the resulting impacts being controlled or eliminated with clearly calculable procedures. This links the earlier points I made about calculability in the motor sport world view with very practical and direct action in the environment, as noise testing is a clear example of the idea that environmental damage can be easily measured and rectified. If one wishes to shape ideas of environmental responsibility among stakeholders perhaps more hostile to such concepts, it is thus important to think about how texts – especially regulatory texts for motor sport – can inform practice and reinforce ideas about what elements of the environment are valuable.

It is vital to remember, however, that texts are in themselves produced by individuals who have their own world views and ideas about what is appropriate behaviour in the environment. Even in the relatively mundane sphere of drafting rules for recreational mobility, this can have profound and tangible effects on the nature of practice. Field archer Bob:

the [Forestry Commission contact] at Dunkeld told us that he had a set of rules for field archery, and we said but if that was the case why were we

invited to discuss them in 1999, at that time he had nothing. And then he assured us that he had a set that he got from this other outfit who are, let's say, pseudo field archers, so we were a wee bit puzzled at that

What is happening here is that there are varying conceptions of what field archery is and how it ought to be carried out. Bob and his fellow club members were invited to discuss the rules for field archery courses on Forestry Commission land, meaning that the procedures for building and competing on field archery courses on Forestry Commission land would be based on how Bob and his fellow archers thought archers 'ought' to behave in the natural environment. Nonetheless, Bob claims that a different set of rules were then appropriated from another group of field archers, a group that Bob and fellow field archer Jim accuse of using crossbows and building courses where there is the danger of arrows ricocheting. It is beyond the scope of this study to wade into the dispute between different field archers, suffice to say that this stands as a fine example of the role of individuals in producing texts about what the appropriate way to behave in the environment is. Individual or small group ideas about how one ought to behave in the environment – in this case using crossbows which are seen by many as a 'hunting' bow rather than a 'sport' bow – can be incorporated into texts and in turn shape how a wider group of people act in the environment.

Second is the calculation and measurement of environmental damage. When discussing texts above I touched on how sound is measured and seen as a proxy for environmental damage in a motor sport context, so I do not intend to repeat myself. I will now, however, build on the notion of different ways of making claims to environmental damage. In the motor sport world view, one of the major barriers to more environmentally responsible practice seems to be the burden of proof that motor sport *is* actually damaging the environment. Film producer and former competitor Greig:

I think if [universities are] going to be on the side of rallying they need to be doing environmental research to see erm the impact that rallying does really have on the, on the environment and it's not very great. Erm, but it needs to be proven and it needs to be put, erm it needs to be backed up erm in such a way and done in such a way that, erm the case is kept there that leave- while

we're doing these veh- these vehicles that eh we're not burning big holes in the ozone layer and god knows what

And rule maker Tom:

three years ago bioethanol was going to save the world, more recent publicity has been bioethanol is dreadful stuff, I was at a seminar a while back where it was described as a crime against humanity. And that's one of the difficulties with these emerging technologies, in that things are being put forward as being environmentally friendly, but when you stand back and look at its broader aspects it's possibly not

Figure 6.5 – damage to forest tracks caused by rally cars often cited as clear evidence of environmental damage.



Source: photo by author.

Within motor sport world views, then, a common argument is that the environmental impact of motor sport must be proven in scientific terms, with uncertainties often used as a reason not to take action. Just as Burgess et al (1998) found that citizens in Nottingham found it hard to know how to take environmental action in the face of uncertain 'expert' advice, for many motor sport participants some kind of

'proof' or 'evidence' of environmental damage is seen as a necessary precursor for action to be taken. This is illustrated by the enquiries launched into less damaging tyre tread patterns after the effects of traditional rally tyres on forest roads became apparent (see Figure 6.5). The importance of 'evidence' in sensing an environment that is valued is being damaged is not limited to motor sport, though. Sled dog racers Mike and Karen talk about the effects of re-graded forest roads on their dogs' feet:

Karen: We're actually being able to be less and less choosy because there's less and less spaces to, to run, erm, but surface is probably the most important, isn't it?

Mike: Yep, definitely

Karen: Erm, because it can rip the, the feet. You know, I mean they've got strong, tough feet, but if there's little, you know, red sort of whatever you call them shale stuff that's, that can be sore for them

Mike: Also their nails, it can wear their nails down very quickly

For Mike and Karen, what they see as 'bad practice' is detected through damage to the feet of their sled dogs. The 'bad practice' in question is first the churning up of the forest path by four-wheel drive competitive vehicles and second the re-grading of the forest tracks they use to train with cheaper material. The damage to the dogs' feet and nails is what leads Mike and Karen to believe the environment they move within is being degraded, and is what motivates them to open discussions with the Forestry Commission about appropriate standards for dog sledding tracks. Likewise, for the members of the community woodland group that path designer Keith describes, it was the intimidating sounds of youths riding trials bikes that led the community to report the actions to the local rangers and police, thus taking action to protect the tranquillity of the forest that they valued.

I talked in a previous chapter about how different stakeholders may sense environmental damage in different ways, but here I want to do something slightly different and argue that different stakeholders use different kinds of sensory 'evidence' gleaned from their own embodied experiences of nature as a basis for making claims to environmental damage and acting practically to reduce this damage. As Nassauer (2008:374) suggests, framing ecological change in these recognizable aesthetic features¹⁶ allows us to "use the cultural momentum of the present to benefit the ecological function of the future". A key practical challenge is

¹⁶ Where, following Rolston (2008), I take aesthetic to refer to a multisensual and embodied engagement in the natural environment. So whilst, say, an oil spill from a rally car is perhaps not the biggest environmental impact of motor sport, it is a visual indicator of the effects of motor sport on its surroundings and can help to shape the idea of motor sport as being damaging to the environment.

thus to ensure that these different ways of sensing and making claims to environmental damage are acknowledged and celebrated in environmental deliberation. Following Lockwood (1999), I believe it is vital to acknowledge that different stakeholders may have different units for expressing environmental value, and if practical and tangible progress on pressing environmental issues is to be achieved it may be necessary to (carefully and critically) accept as a starting point that some stakeholders value the environment in more numerical ways. I am of course wary of Spash's (2009) concern about the danger of 'new environmental pragmatists' over-privileging numerical accounts. As such, I believe that numerical valuations of nature must be treated as one way of valuing the environment and making claims to environmental damage among many. The role of deliberation in this may be to think through how very different units of environmental valuation may exist simultaneously and to help tease out areas of common value around which alliances for the protection of the natural environment can be formed.

The third and final thing to note here – and this will set up one of the main themes of the final chapter – is that practical experience can feed back into broader ideas of environmental values and how humans ought to treat the environment. In other words, rather than stakeholders' environmental values only serving to shape their actions, embodied experiences can feed straight back into the values that people have, reforming these values. For instance, Brenda sees the significance of a clear link between one's actions to reduce environmental impacts and the results of these actions:

I think it's important as well - and we try and do it and we sometimes need a bit of a kick sometimes, because we don't get a lot of information from the countries fast because they're so busy, the programmes out there - is that you get feedback [...] And that is part of the awareness as well. Rather than just going on our website I think you get feedback physically, erm you get sent documents pertinent to the countries you've driven through or where your particular funding has gone

This appears to be grounded in her own experience of working with organizations:

we can feed back the updates to the hotels that are involved because both the hotels specifically involved at the moment are supporting specific projects. So for instance I can be can be the link with Jakarta and the Kenmore Hotel and erm you know we pass photos to them so they can update their guests etc, update their website as well

Brenda herself is an embodied 'link' between a project in Indonesia and a hotel in Perthshire, passing information and photographs to the hotel. This relates closely to her broader view that getting feedback on how one's practices or donations have helped is key to sustaining more responsible practice – that is, it provides the kind of causal link that the participants in the rally projects saw as so important, and arguably removes some of the complexity that Pellizzoni (2003) associates with contemporary environmental issues. Furthermore, there are also links here to Zavetovski's (2003) challenge of sustaining ecological identities in that environmentally responsible practice can be sustained if the results of responsible actions are made visible. This in turn fits in well with Massey's (2004) thoughts on the role of proximity in responsibility – Brenda's role in providing feedback and acting as a human 'link' can perhaps increase the social proximity between places and stakeholders, making care for spatially distant places easier to sustain.

Bringing the idea of practical action relating to broader questions of environmental value into the sphere of motor sport, much of Tom's belief that sensible and careful practice is key to the continuation of motor sport in spite of ethical criticisms seems to come from his past experience, as illustrated by:

there is noise in all sorts of activities, football stadia, they generate noise, they generate noise directly from the crowd, they generate noise from people coming and going etc etc. Most activities generate noise somewhere along the line, and it's what's reasonable [...] A very simple thing I did when I worked for a circuit, many, many years ago, was we were putting a new PA system in and instead of having the speakers, and this is probably twenty-five years ago, instead of having the speakers running along the spectator fence pointing outwards, I put them behind the spectator area pointing inwards, which meant that there was less bleed off over the fence to our neighbours

Tom's view that motor sport shares many environmentally damaging traits with other recreational pursuits, but that compromises can be reached through changes in

practice, comes through very well in the above extract. He gives an example from the past of when he re-positioned the public address speakers at a racing circuit as a justification for his current beliefs that agreement on practice can be reached. Despite Tom's cautious stance on environmental issues – as seen through his views on biofuels earlier in this section – he seems to be aware that other stakeholders may view the practices he is associated with as objectionable even in the face of uncertainty over the precise environmental impacts of motor sport. This is exactly the kind of outcome I am aiming for when I speak of a 'genuine' environmental responsibility – a recognition that different people value the environment in different ways, twinned with critical changes in practice to ensure that what is valued (here the sound of motor sport) can be retained, with the removal of some more environmentally negative aspects. The reciprocal relationship between wider questions of what people value about the environment and how this filters down to practical action is something I see as a key contribution my study can make to environmental values thinking, and is something that will be discussed in the next chapter.

6.6 Conclusion

This chapter has looked at some of the main aspects relating to how environmental values are shaped and performed. By doing this, the broader aspects of ecological identity work extending beyond embodied experience have been explored, with the aim of developing a contextualized understanding of why stakeholders value particular kinds of mobility. Non-participants in motor sport have also been considered in light of Paavola's (2008) call for polyvocal environmental debates and Klenk's (2008) pragmatic proposal for forestry. That is, consideration of those stakeholders who may object to motor sports – or who may just share the same landscapes – can give a more nuanced understanding of what precisely is valued about motor sport mobility in the natural landscape. Looking at other types of forest mobility may also help to flag up potential outcomes that may not otherwise have been considered, and can suggest areas for working round conflicts in practice.

Place values were explored first of all, with a particular focus on proximity to place. This is proximity both in the sense of the physical ability to care for spatially proximate places and in the sense of developing an intimate understanding of how the natural environment one moves within functions in practice. Questions of identity were then considered, paying particular attention to the concept of ecological identity but remaining open to the possibility that different identities cannot always be separated out easily, and that identities may shift over time. I then looked at interpersonal relationships and relationships of responsibility. This responsibility can take legal forms (in the case of, say, Forestry Commission managers) or more ethical forms (in the case of, say, the manager of a deer stalking organisation). These relationships of environmental responsibility may shape individuals' environmental values in at least two ways – one, by leading those in a position of responsibility to pay attention to the values of others, and two, by altering the nature of practice according to what those in a position of responsibility see as appropriate or ethical practice. I then explored narrative, foregrounding the analytical purchase gained on how values are shaped and how stakeholders are motivated to begin participation. I also discussed how the concept of narrative trajectories might be extended to organisations, suggesting this might be a helpful way of overcoming hostility to environmentalist ideas by serving as a reminder of changes that have already occurred in motor sport. Finally, I discussed the presentation and performance of values. The key point I made here was that different stakeholders have different ways of sensing environmental damage, and thus very different ways of making claims to environmental problems. The challenge thus becomes one of creating appropriate fora for these different units to be deliberated so that areas of commonality upon which practical action can be based may be identified.

In short, the ways in which environmental values are informed and play out in practice are very complex – just as Weston (1985) believes. This is not an earth-shattering revelation, but here I hope to have unpackaged some of the complexities behind environmental values in motor sport and, just as importantly, formed a basic understanding of why motor sport participants may persist in a practice so fundamentally destructive to the environment. The work of the next chapter will be

to think more about this reciprocal relationship between theory and practice, saying something about how enquiry into environmental values can help to imagine more sustainable futures and also how this kind of work can feed back into environmental values thinking to ensure the continued relevance of the discipline to pressing 'real world' problems.

7. ACT – GETTING THINGS DONE AND HELPING THEORY TO HELP TO GET THINGS DONE

This chapter aims to move towards the conclusions of the study, and as such thinks about how environmental values are performed in practice before reflecting on the reciprocal relationship between environmental philosophy theory and practice. It does this by thinking through several things. Firstly, the challenges of affecting change in practice are reviewed. Secondly, I consider how the ideas and theories of environmental ethics helped practical outcomes to be reached in the participatory projects with which I was involved. Thirdly, I look at the way observations from the field can feed back into environmental ethics thinking in order to ensure the discipline's continued relevance to very pressing and real contemporary environmental issues.

Under challenges of affecting change in practice, five themes are discussed: proximity; perception; materiality; regulation; and knowledge. *Proximity* elaborates the role of place values in the construction of environmental problems and moving people to take action to protect environments. *Perception* considers how the motor sport practical response to environmental issues is based largely on perceived opposition from other groups and a perception of what is objectionable. *Materiality* notes the very real and material nature of the motor sport impact on the environment, arguing this must not be forgotten even in spite of broader debates. *Regulation* discusses the role of regulation in environmental responsibility, suggesting it can help to shape responsible practice but can also be a hindrance to embodied experience by making rules ends in themselves. *Knowledge* looks at the different knowledges that come together in practice, advocating Paavola's (2008) polyvocal accounts of environmental issues but also a certain role for expert knowledges.

I will then consider how environmental practice here was informed by environmental pragmatism literature. I do this by drawing largely on data from the participatory projects I was involved with, where I worked with a rally championship and a single rally event to implement programmes that, on their terms, aimed to mitigate the

impacts of rallying on the environment. Although it may seem unusual to be going back to empirical data so near to the conclusions of the thesis, given my grounding in environmental pragmatism I believe it is important to keep the practical outcomes of the research – and their implications for theoretical ideas – firmly in the foreground. Referring to discussions during the projects among rally organisers over the environmental impacts of rallying and their perceptions of environmental issues more broadly, I demonstrate the value of the tools of environmental pragmatism to deliberations over practical action. I show that the ideas and principles of environmental pragmatism played a key role in understanding why some participants were hostile to ideas of environmentalism, helped agreements over practice to be reached in spite of remaining ethical debates, and reminded me as a researcher not to overlook real and tangible progress by being caught up in broader theoretical debates.

Finally, I discuss the contribution to environmental values thinking from this case study. The heterogeneity of views of nature, complexity of ecological identities at play and role of place values in imagining sustainable futures are all flagged up as areas environmental values thinking needs to continue to pay attention to if an ethics of respect similar to Rolston's (2007) call is to be developed. Parallels will also be drawn to Sagoff's (2004) study of deliberation over forest management as a warning of the difficulties of achieving agreement and progress in practice.

As this chapter aims to bring together many of the things I have discussed so far and pay particular attention to how broader questions of environmental values might link up with practical action, I will be reflecting again on some of the most interesting findings and tying them in to the practical outcomes of the work. A small amount of overlap between examples used and points made earlier is, therefore, inevitable if clear links between more theoretical and more practical issues are to be made.

7.1 Key themes arising from the data

7.1.1 Proximity

The first key theme to arise out of the data in relation to affecting change in environmental practice is proximity. This proximity can be both spatial (as suggested by Cheney, 1987) and relational (Massey, 2004), and in practice is often a combination of the two.

Robert's moves to restore a famous section of road in Argyll come from exactly this relational proximity to place. Despite living on the other side of Scotland, Robert sees the site of the old race venue as valuable for several reasons. One is his own personal, embodied experience of spectating at the venue when younger, and another is the broader symbolic value of the place to Scotland's motor sport communities. Narratives of heroic deeds by famous drivers serve to make the place valuable and something deemed to be worth preserving, and similar stories can be found from other locations in Scotland and the wider UK. The revival of hill climb racing at Bo'Ness and efforts to preserve sections of historic banked track at Brooklands in England both stand as fine examples of how rich historical narratives can spur on efforts to preserve both more natural and cultural landscapes for their motor sport significance.

For Robert's group, this manifests itself in practice through moves to prevent the physical deterioration of the site and a desire to make modern events associated with the location seem environmentally responsible by increasing competitor awareness, promoting the re-use of older parts and making small moves to offset the damage caused by the rally. Although it may seem to be the memories of other people – and their vehicles – that are of value here rather than 'the environment' itself, as I mentioned earlier it is important to remember that the physical properties of the landscape play a pivotal role in making this particular place valuable to motor sport enthusiasts. That is, alongside the well-rehearsed arguments about the difficulty of

separating nature and culture, there is here a sense that it is the hills, bumps and curves of the natural environment that make this a challenging and valuable landscape for the humans that drive over it at speed. What is also encouraging here is that Robert acknowledges the fact other narrative trajectories of place may exist alongside the motor sport narrative, for instance the significance of the area to Scottish military history.

Proximity and place values also come into play in negotiations between a Forest District and rally organisers. Rally organisers have recently been allowed to return to an area valuable to them for its topographical qualities (and associated memories) for the first time in many years, but with some caveats. Rally participants are at present only allowed to practice in the forest in question rather than driving competitively, and access to the forest is contingent on crews using less powerful and therefore less environmentally damaging cars. Proximity to place and a desire to continue being able to access certain places have thus arguably led to a change in practice that reduced the physical environmental impacts of rallying. Whether it is the topographical qualities of spaces or the memories and narratives associated with them, then, place values seem to have a certain degree of leverage on encouraging motor sport participants to both act more responsibly to the environment of their own accord and also accept greater restriction on their practices.

Within this idea of proximity is the importance of individual conviction in actually getting things done. In the participatory projects, this was manifest in the way several key figures from the organising committee approached me in the first instance to instigate the projects. Their view was that with the knowledge I had gained from studying environmental issues at university, I would be able to advise them on what options were realistically available and workable with regard to tackling the environmental impacts on motor sport. Having received some suggestions from me, the organisers then took the lead in designing and implementing environmental schemes, contacting the Forestry Commission and carbon offsetting charities to explore options and pricing, making the drivers and navigators aware of what was going on and asking me how their schemes could be developed further. It is also

important to note that these actions were not generally couched in terms of generating positive media coverage, rather they were justified as getting a ‘head start’ on the environmental challenges that the participants felt motor sport and society more broadly would inevitably have to face up to sooner or later. Although these actions take place at the scale of the organisation and involve contributions from many committee members and competitors, it is the convictions of several individuals that have led to action being taken to mitigate environmental impacts.

Away from rallying, the importance of individual convictions – especially those of individuals within organisations – in getting things done also comes to the fore. This is most apparent when Forestry Commission ranger Duncan explains how it was the idea of one recreation ranger that set in motion a chain of events that led to Dumfries and Galloway becoming a world-class mountain biking venue. This is not an obvious example of environmental protection, but what it does illustrate is that the values and beliefs of individual people can be pivotal in shaping the narrative trajectories of place and informing the actions of larger organizations. More generally, the points made by dog sledders, fourcross riders and field archers about negotiations with the Forestry Commission serve as further reminders of the role individuals play in shaping the practices of others. The idea that certain things are permissible if the ranger or manager in the area agrees with it – sometimes seemingly at odds with the guidance laid out in policy documents – demonstrates in very real terms how the world views of individuals in organizations can shape how other stakeholder groups behave towards the environment. As Dobson (2003) suggests, then, working with individuals within organizations may be one way of shaping ecological citizenship at larger scales. In any case, the views and values of individuals can go some way to affecting practical environmental change.

Proximity also has a role to play in the very construction of environmental problems. Relationships with other people inform or reinforce perceptions of environmental damage and environmental issues, as illustrated by communities coming to see trials bike riders as being a problem after discussing their experiences with one another. Likewise, deliberations over climate science and the politics of climate change in the

participatory projects seem to reproduce the notion among those involved in the discussions of environmental issues being an issue promoted for political and financial gain. Similarly, intimate, local understandings of environments can perhaps make it easier for those close to the environment to sense when something is ‘wrong’ and begin to make claims to damage. For the rally drivers in my study, spending a lot of time driving on gravel forest roads meant they were quickly able to realise when the forest roads were becoming damaged by too many cars passing over the track, as it affected the performance and handling characteristics of their vehicles. A forest road being churned up by four-wheel drive rally cars is only a very small and limited indication of the environmental damage that can be done by performance cars, but it is still a tangible demonstration of this damage that can be sensed by participants themselves. The intimate and embodied relationships stakeholders have with place are perhaps the sites at which environmental issues can most effectively be sensed due to the embodied experience of environmental change this provides.

7.1.2 Perception

The second key theme from the data relating to the practice of environmental responsibility is that of perception. Key in this is the idea among the motor sport participants I spoke to of an amorphous ‘green lobby’ who object to motor sport and will do everything they can to stop motor sport events from taking place. Consider the following extract from my field notes, made after a meeting with rally championship organisers:

Scepticism about the politics of climate change surfaced at this point. “The biggest threat to civilization is the green movement,” exclaimed someone. “Exactly,” added another who was otherwise supportive of environmental initiatives. “And it’s the greens that are going to be in power in Australia now because they’re the ones that are going to be able to put someone in government.”

In the above, ‘the greens’ are referred to repeatedly with the definite article, almost as if anyone with environmentalist leanings belonged to one group. Language such as ‘threat to civilization’ suggests the idea among some of the organisers that

environmentalists are a ‘threat’ to the lifestyle those participating in the discussion enjoy – more so than any possibility of environmental change due to emissions from rally cars or other damage caused during the course of racing. Among the non-participants I spoke to, however, objections to motor sport on either ethical or practical grounds were limited, most people – for instance field archers Bob and John, path designer Keith, and the community members with whom ranger Duncan worked - being more concerned about uncontrolled mountain bikes or motorcycles. What this suggests is that the motor sport view of environmental issues is grounded largely in *perceived* opposition to motor sport as opposed to any large-scale and sustained opposition to this kind of mobility.

This perception of opposition seems to give rise to a burden of proof of environmental damage before action is taken to mitigate any impacts. This is illustrated by rule writer Tom’s view that the environmental impacts of motor sport are, in absolute terms, minimal, and television programme producer Greig’s argument that if researchers were going to be ‘on the side of motor sport’, they needed to do research to ‘prove’ that the environmental impacts of motor sport are limited.

In practical terms, this gives rise to a very set series of environmental responses from motor sport communities, based on what these communities think other stakeholders are likely to object to. Most common among these responses is noise reduction, following several cases where restrictions have been imposed on racing circuits due to the presence of residential housing nearby. The Brands Hatch, Castle Combe and Donington Park racing circuits are examples of motor sport venues where the kinds of vehicles that can be used, the number of days the track can be used in the year, and the times of day races can be run are restricted (www.savemotorsport.com, accessed 19/02/2011). Voluntary carbon offsetting (generally seen as the ‘easiest’ way to respond to environmental pressures) and investigation into ‘green’ fuels (again bound up with the encroachment of carbon into the public consciousness) are also discussed frequently. This can be seen in the Motor Sport Industry Association’s programme of ‘Energy Efficient Motorsport’ conferences (www.the-mia.com,

accessed 19/02/2011) and the decision of organisations such as the Saltire Rally Club to offset the carbon emissions of their events (www.saltirerallyclub.co.uk, accessed 19/02/2011).

By contrast, there appears to be limited evidence of motor sport competitors or organisers actually consulting with other stakeholders over where potential for land use or values conflict may lie. Participant observation and in-depth interviews, especially relating to the uncontrolled use of dirt bikes in forests, suggest intimidation to be a main cause of values conflict with motorised recreation practitioners. Unsighted bikes travelling at speed, full-face helmets and noisy bikes are discussed as causes of values conflict by making the otherwise benign and peaceful forest an intimidating space. This also comes to the fore in the case of deer stalking, where great care is now taken *not* to scare other legitimate access takers with signs warning of the use of guns in the area. Avoiding technologies that cause intimidation – or create the impression of aggressive, hostile practice - in non-motor sport contexts look to be an important part of defusing values conflict.

Whilst small steps are being taken to mitigate potential environmental effects of motor sport, though, it may be the case that less is being done to find out what exactly others dwelling in nearby environments may actually find objectionable. Actions taken are perhaps often based on a perception of what other stakeholders would object to about motor sport, with these perceptions in turn grounded in common conceptions of environmentalists, media reporting of broader environmental issues such as climate change, and discussions with other motor sport participants. Issues that may be worth addressing practically, by contrast, could be to reduce the potentially intimidating nature of rally cars and the rally event. Similarly, avoiding making assumptions about what other stakeholders object to could allow more mutually beneficial outcomes to be reached.

As opposed to perceptions of other stakeholders, perceptions within stakeholder groups also shape particular kinds of action. What is of interest here are ideas of fairness and responsibility and how these can inform values and action. As I

mentioned in the introductory chapter, the newest and most expensive kinds of rally cars have become increasingly rare on Scottish rallies over the last few years, a trend that started even before the recent economic downturn. Informal conversations during participant observation revealed one of the main reasons for the disappearance of these World Rally Cars is a growing perception of the use of such cars as unfair. In other words, entering a car worth several hundreds of thousands of pounds and intended for use by the world's best drivers in what is, after all, an amateur championship is unsporting and unfair to those running cheaper cars on much smaller budgets.

Even though the most expensive cars have only just been banned by the Scottish Rally Championship organisers, what has been going on for several years is a kind of self-policing of cars that are seen to lie outwith perceptions of fairness. Similar kinds of self-policing are evident in the accounts of non-participants, most notably field archer Bob with his dislike of crossbows, and sled dog racers Mike and Karen who disapproved of those always looking to buy faster dogs. In the absence of formal regulation, the fear of others forming negative opinions (aided particularly in the case of rallying by frank and aggressive discussion on a popular online forum!) is enough to discourage unfair behaviour. With this framework in place, the challenge that remains is perhaps to try to transfer this idea of fairness to some of the ideas of environmental justice so that, perhaps in addition to regulation, community ideas of fairness work to discourage actions that are seen as unfair towards the natural environment. Ideas of fairness in rallying can be seen working in practice, just not in relation to the environment (but, maybe by good fortune, the most expensive rally cars also happen to be the most environmentally damaging in terms of emissions, noise and effect on water courses).

The last thing to say about perception and action is to do with monetary and numerical valuations of nature. Forestry Commission manager Alistair talks about the need of the rally driving community to 'compensate' the Commission for the damage caused to forests by rallying, making it clear that he is referring to financial compensation. Similarly, field archer and fellow forest user Bob speaks at great

length about the costs of permits and insurance to allow his group to use the forest, and my field notes from participant observation make many mentions of the calculation of environmental damage from motor sport – gauging emissions, measuring sound levels, using tools to see how much the ground was disturbed by car tyres. I have already talked at length about Spash (2009) and his concerns about over-privileging numerical or monetary valuations of nature, but I wish to re-iterate my point in terms of the practical outcomes that can be attained. That is, although we do not have to make numbers the dominant form of environmental valuation – and, indeed, we should continue to think carefully and critically about the difficulties of assigning numerical values to nature – this does not necessarily mean we must dismiss offhand everyone who uses numbers as part of their world view. In order to make practical progress on some very real and pressing environmental issues, perhaps it is necessary to acknowledge that numbers or money *are* part of the way some people value the environment and recognise this when engaging in deliberation, working with these more numerical world views without compromising the ethical standpoints of others.

A good example of this comes from the interplay between the rally championship and the carbon offsetting charity in the participatory work I was involved with (see Section 4.3 for a fuller discussion of this). Whilst the very practice of motor sport does not sit perfectly with the charity's broader aims and message, the charity did not completely dismiss the championship's efforts to align themselves with them by joining a carbon offset scheme, and indeed already had strong links to other car-related events. Getting the championship organisers to realise that their activities have environmental impacts and take small measures to mitigate these effects acts as an important first step. Although ethical criticisms of carbon offsetting are widespread (for instance Hale and Grundy, 2009) and whilst broader disagreements between the charity and the motor sport participants continue to exist, the engagement between the two organizations at least gives the charity a platform to enhance motor sport participants' awareness of issues relating to the environment and social justice. In short, accepting that the motor sport view of the environment is

different and working with this rather than dismissing it as ‘wrong’ opens up opportunities for broader deliberation and engagement with social issues.

In any case, the question of perception raises a much bigger practical challenge for motor sport. If, as Tom and Greig claim, the physical environmental impacts of motor sport are relatively small on a global scale, then this hammers home the importance of thinking about *why* motor sport is objectionable more broadly if practically workable outcomes are to be reached. What does motor sport stand for, and how can this be changed so as to make motor sport more environmentally responsible and less ethically objectionable? As well as addressing the direct environmental impacts of motor sport through technological change and deliberation, changes in practice could even be a powerful force for good in making motor sport an exemplar for more sustainable futures for automobility. Linking back to the point I made earlier in this chapter about spatial proximity and its role in sensing environmental damage can also be helpful here. That is, although motor sport may not have great environmental impacts when one considers it at a global scale, at a local level its potential impacts can be huge. These can be direct impacts on the natural environment, or impacts in terms of making the experience of nature less valuable for other humans by restricting access or disturbing tranquillity. In short, if one is physically close to a place, then one is much more likely to notice and feel the negative effects of damage to that environment¹⁷.

7.1.3 Materiality

Although I have argued strongly for the significance of perception in understanding why motor sport might be viewed as ethically and environmentally objectionable, it is important not to lose sight of the materiality of environmental damage caused by motor sport and other mobilities. As well as illustrating the importance of calculation and ‘evidence’ in the motor sport world view, the actions taken by motor sport participants to mitigate their environmental impacts do also say something

¹⁷ My thanks go to Andrew Light for encouraging me to think through this idea of scale as a more robust response to the question of why motor sport participants should care for the environment if the impacts on a global scale are so small.

noteworthy about the materiality of environmental issues. Ranger Duncan and path designer Keith both speak about the erosion and damage to water courses caused by motorcycles, co-driver Martin discusses the way rally car tyres send gravel flying, and environmental scrutineer Geoff explains how special kits can be used to soak up the fluids leaked by rally cars. Flying rocks, chemical fluids and clouds of exhaust gas all demonstrate the very real and material ways in which motor sport directly damages the environment.

Outside of motor sport, trail designer Steve believes there is a “real science” to what he does in terms of understanding natural processes and making sustainable trails, whereas deer stalker Brian illustrates the complexity of environmental damage by justifying shooting in terms of the ecological damage deer can do. Whether this is ‘damage’ in terms of damage to the broader ecosystem or ‘damage’ that makes timber unfit for sale is open for debate, but it still shows physical damage that can be caused to nature. What I am getting at here is that when keeping the practical outcomes of environmental deliberation to the fore, alongside broader questions of environmental values and world views it is important to register that for many different groups of stakeholders, there is a certain materiality to the impacts human activities have on the environment. As well as being bound up by values and ecological identities, there is definitely a physical element to claims to environmental damage.

This acknowledgement of the materiality of environmental issues perhaps leads to re-visiting the question of technology. In much the same way as Abram (1996) does not directly rule out a role for technology in sustainable futures, I believe it is important not to dismiss the potential for technology to mitigate some of the more physical environmental impacts of motor sport and other mobilities. Rule maker Tom charts the technical changes to competition cars over the last few decades, pointing to the introduction of catalytic converters, improvements in silencing systems and developments in low-impact tyres as illustrations of technological efforts to mitigate the environmental impacts of motor sport or even stop pollution being produced in the first place. It may seem somewhat counter-productive to make these points about

technology not long after I have argued for the importance of thinking more widely about what motor sport stands for and how this makes it ethically objectionable, but the reason I make this point now is that I believe it is important not to rely solely on technological ‘fixes’. In other words, following Hale and Grundy’s (2009) concerns about restitutive technologies removing clear lines of responsibility and respect, I am concerned that purely technological outcomes or technological ‘fixes’ for environmental problems can allow stakeholders to continue their existing practices without critical reflection on the ethics of their practice. The use of technology to mitigate the material impacts of mobilities should be accompanied by both careful and sustained discussion on environmental values, and also the acknowledgement that technology is just one aspect of mobility. As long as this is done, I believe this research demonstrates that technology can have a useful and valuable role to play in responding to some of the more pressing and practical challenges posed by contemporary environmental issues.

7.1.4 Regulation

Very much related to the materiality of environmental issues are questions of regulation. Some of my data suggests that regulation can be both a force for good and also a frustrating factor in affecting practical environmental change. On one hand, Forestry Commission manager Alistair and retired researcher Peter discuss the potential for management to balance the diverse and often conflicting range of activities that go on in forests, suggesting that careful and sensible management can go some way to minimising environmental values conflict between different stakeholders. Sled dog racers Mike and Karen agree that this works in practice, praising Culbin Forest in Moray for splitting the forest in such a way that informal access takers are kept largely away from the area where dog sledding is practiced, thereby reducing the chances of conflict and producing a more valuable experience for Mike and Karen. Tom believes a similarly managerial outcome has reduced the potential for much motor sport-related conflict, timing races so that noisier cars do not run early in the morning. Spatial or temporal zoning can therefore do much to reduce conflicts between the values of different stakeholders, but does it really

reduce the physical impacts of different mobilities on the environment? Arguably, what the managerial solutions discussed above do is try to limit damage spatially or temporally, but given Pellizzoni's (2003) thoughts on the complexity of contemporary environmental debates, perhaps it is impossible to affect sustainable and genuine environmental responsibility through management alone. In much the same way as technology alone perhaps cannot address the complexity of contemporary environmental issues such as the one under study here, then, what managerial outcomes can do is reduce the short-term potential for conflict and limit the most immediate environmental impacts (such as damage to roads and noise pollution) spatially. In terms of attaining practical outcomes, management is one tool among many that are required.

On the other hand, there is the challenge of working within existing frameworks where there may be limited room to manoeuvre. This is particularly clear in the case of Forestry Commission land, both for Forestry Commission staff and users of the land. Employees Alistair, Duncan and Simon all make reference to the forestry strategies that they must work within, whereas co-driver turned rally organizer Martin, field archer Bob and sled dog racer Karen all discuss the conditions of access laid down by the Forestry Commission to which they must adhere. Bob in particular talks at great length about the dimensions for courses set out by the Forestry Commission and the strict insurance conditions that must be followed. Particularly given the difficulty of accessing privately owned forest in Scotland, this means that the guidelines laid down by the Forestry Commission are vital in shaping the type of experience that many recreational forest users have. This is not in itself a bad thing – especially if it encourages critical reflection from motor sport participants – but there is perhaps a danger that meeting these rules and regulations can become ends in themselves without deeper critical reflection on the environmental impacts of different practices. More generally but still practically, if the forest is to be a space where ethics of environmental responsibility can be shaped for a diverse range of stakeholders, it is maybe important that the access takers using the forest have a valuable, enriching and above all positive experience.

Forestry Commission aside, it is important to pay heed to the frameworks people must work within. Deer stalker Brian explains the, in his view, clear-cut nature of gun laws and deer management, where there are strict legal restraints on the type of practice deer stalkers can engage in. Document analysis shows that the organising committee of a popular Scottish rally have recently stepped down in light of the legal responsibilities placed on them as rally organisers to ensure the safety of competitors and spectators, noting that:

the world has become increasingly litigious. As a committee, whilst we absolutely make the best endeavours to ensure that we do everything possible to minimise risks and to cover ourselves, there is always the possibility of unforeseen mishaps. Under Scottish law there is a very real possibility that we could have a situation where members of the 2300 Club Committee could be facing serious criminal charges, which could result in custodial sentences. This is an incredibly high price to pay when you are doing your best to organise the event as a hobby and very difficult to fully mitigate for

(<http://www.2300club.org>, accessed 12/03/2010).

Stargazing facilitator Malcolm speaks about the responsibility he has to report to funding bodies on the uptake and impacts of the events he runs, albeit in terms of the number of people attending and the things they were ‘taught’ rather than in any broader sense of the cultural benefits or environmental understandings participants might gain from going stargazing. What these three examples illustrate is that if practical environmental change is to be shaped in a range of practices, one must also pay heed to the legal or managerial frameworks that stakeholders often have to work within in practice. Although I agree with Curry (2006) that one role of philosophers should be to imagine things beyond the realms of ordinary living, at the same time it is also my view that short-term environmental outcomes attainable within existing frameworks need to be imagined while deliberation over more substantive issues is ongoing. As Light (2005) puts it, pragmatic environmental philosophers need, as one branch of their thinking, to imagine what may be possible within the confines of existing frameworks.

A final point to note in terms of regulation is the prevalence of themes of Health and Safety, litigation and legal responsibility in stakeholders’ accounts. This is almost

exclusively spoken about as a constraining factor that detracts from the value of experience of nature the participants had, something that causes stakeholders to spend more time filling out paperwork, carrying out risk assessments and worrying about issues of liability and responsibility than actually engaging in the kind of mobility they valued. This is not necessarily to do with the environment, instead having more to do with protecting the safety of other humans, but it still raises an interesting point as regards regulation and embodied experience of the environment, where a 'safe' and regulated experience maybe takes precedence. I guess what I am getting at is that regulation is something of a double-edged sword with regard to 'genuine' environmental responsibility. On one hand, it can provide the impetus for stakeholders to act in more environmentally responsible ways by compelling them to do so if they wish to continue to access the places they value. On the other hand, though, regulations can also become ends in themselves that perhaps detract from the rich experiences of nature that are key to shaping an ethic of respect or care towards the natural environment. Again, this reinforces the idea that regulation is just one tool among many in informing environmentally responsible practice.

7.1.5 Knowledge

The final aspect to discuss is the place of knowledge in practical environmental action. Astronomer Malcolm makes interesting points about the role of social science research in environmental experience, seeing value in the way humanities can describe the experience people have and develop an understanding of how different activities fit into a broader cultural landscape. I would like to think this relates to what I am trying to do in terms of understanding the kind of embodied experience of the environment people have and the kind of values this may shape. I would, however, hope to go beyond 'just' describing the experience people have and instead, maybe through description, understand the experience people have and the environmental values that may arise out of this. The place for social science research in affecting practical outcomes can thus be one of – as Malcolm suggests – understanding the kind of experience people have, what they value in this and how environmental values can be shaped.

Cooperation and the sharing of knowledges is also key to enhancing understanding and shaping practical action. A good example of this is landscape architect Simon's belief that his job is to synchronise various expertises and produce ideas about how to manage forests through an iterative process of deliberation and discussion. He sees 'integration' as a key concept in his work, and believes university research can play a vital role in helping him and his colleagues to "do that integration better". Similarly, trail designer Steve is involved in setting up an information sharing network about access to natural environments. This network, centred around an online repository, allows various experts on public access to upload case studies to a website to share with others working in the field of access. In return for submitting information to this pool of knowledge, one can view the case studies produced by others, which cover topics as diverse as bridge building dimensions and path laying techniques. Steve's motivation for getting involved in this is to create a 'one-stop shop' for information on access in Scotland, noting that there is currently nowhere those working in access can go to get the practical information they need to carry out their jobs efficiently. With the information available being of a very practical nature, Steve's information sharing network stands as another fine example of how better change in practice can come about through the sharing of knowledges.

As well as the sharing of knowledge, the passing on of ideas and information is also important in making change in practice. This relates to O'Neill's (2007) argument that many citizens cannot be experts in every area, and while they have their own detailed knowledge, they may sometimes need experts to explain complex issues to them. One of the major barriers Tom sees to the adoption of alternative fuels and 'green' technology in motor sport is the lack of knowledge. Tom explains that whereas virtually every competitor knows how an internal combustion engine works because the knowledge has had over a century to accumulate, few understand engines powered by electricity. For new technologies to be taken up in motor sport, then, there is perhaps the need for knowledge to be passed on to participants, as this is not something they intuitively know or can teach themselves through trial and error. Indeed, shaping or teasing out environmental knowledge is something Lintott

(2006) sees as a key challenge in the emergence of eco-friendly aesthetics – that is, the development of an understanding of environmental processes is arguably a vital step in moving people to care for natural environments.

To make a practical difference, then, various knowledges can come together, and people with different expertises can help each other to make tangible changes to their relationship with the natural environment. I see this as extending Paavola's (2008) call for polyvocal environmental accounts beyond the academic sphere and into the public sphere as well. That is, how can different knowledges come together, or how can those with expert knowledge help others, to attain 'better' environmental outcomes in practice?

At this juncture, I want to reiterate the point that focusing on practical outcomes does not negate deliberation over broader questions of values and ecological identity. In line with the tradition of environmental pragmatism, it is my view that whilst the practical outcomes of very real and pressing environmental debates should be kept to the fore, there is room within this to think about why people feel the way they do towards the environment and what moves them to act in the way they do. Indeed, as I have argued repeatedly it is through engagement with these broader issues that more genuine and sustainable environmental responsibility may emerge. The practical issues I have flagged up in this situation are, as Andrew Light (1995) puts it, convenient stopping points in an ongoing dialogue about what a group of stakeholders value about moving through the natural environment in vehicles at speed.

7.2 On the reciprocal relationship between environmental values thinking and practice

7.2.1 Contribution to the motorised recreationalists from environmental values

From the outset, I approached the study with an approach rooted very much in environmental pragmatism, paying particular attention to Light's (1996) suggestion that pragmatists accept that at some time, their framework may not be appropriate for the protection and preservation of the environment. Following Weston (1985), I also tried to accept that different people hold perhaps irreconcilable visions of the ideal world, and that as such I needed to keep practical outcomes to the fore. In other words, whilst I was anxious to avoid wading into the communities I was researching with my own pre-conceived ideas about how they would perceive environmental responsibility (and how they would perceive me!), I had to remain aware of the possibility that some may be apathetic if not outright hostile to critical reflection on their practices.

As it happened, I did face some hostility towards environmental issues, particularly at the initial stage of the participatory project with the rally championship. When the possibility of paying to offset or rectify some of the environmental damage caused by competing cars was raised, an influential figure declared:

if we're going to be giving money to something, I'd personally prefer it went to a fund for marshals or something like that

Whereas another member of the group raised his opinion that:

this whole environmental thing is just the emperor's new clothes. Someone, somewhere is making a fortune out of this, I tell you

Similarly, during an interview with an organiser of historic rallies who had introduced carbon offsetting schemes to his events, promoted fuel efficiency over

outright speed and worked to form an alliance with a national park to minimize disruption, he reasoned that:

it's a voluntary thing [...] so we give it to, you know, to either, you know, buy lightbulbs or plant trees or something but it's that kind of idea, anything at all that kind of yeah, because its this is the new orthodoxy and you know we've got to go along with it, erm yeah I agree with it anyway

From these discussions, which all took place at an early stage of my fieldwork, it would have been easy to have become disheartened with the hostility and scepticism of environmental issues. After several days of considering whether it was worthwhile continuing this line of enquiry, I realised that what I had found was in itself data, and that it could provide useful insights into *why* those involved with rally driving may be so sceptical of environmental responsibility. For instance, the initial quote about a preference for giving money to volunteer marshals perhaps illustrates an anthropocentric world view in that care for other humans and their needs is prioritized over care for the natural environment and its needs – hardly an earth-shattering revelation, but one that could nonetheless prove important if I was not to alienate those I was working with. It also followed Massey's (2004) geographies of responsibility in that those that were cared for were those that were socially proximate, in this case other humans, and suggested that care for natural environments in which motor sports took place would perhaps be easier if there was social proximity to that space or some kind of value attached to it.

The throwaway remarks “buy lightbulbs or plant trees or something” and “this whole environmental thing”, meanwhile, suggested a sketchy awareness of what was actually meant by ‘environmental issues’ and an equally vague understanding of what might be done in practice to mitigate humans’ effects on their natural surroundings. A way of increasing awareness of what the groups I was working with could reasonably and practically do therefore seemed necessary if tangible outcomes were to be achieved. At the same time, however, I was keen to pursue deliberation in private over broader issues, so that any environmental outcomes achieved did not, as Henderson (2001) warns, become ends in themselves without critical reflection on why they are being done.

After Curry (2006) I kept in mind that alliances should be formed wherever common ground is possible, and following Norton (1995) I was looking for the possibility of agreement in practice, debate over principle. In other words, following some of the basic principles of environmental pragmatism, regardless of the outcomes of the deliberation it could be possible to reach agreement on practice without compromising ethical principles. As I was anxious not to impose my own views on what the participants 'ought' to be doing, I allowed them to lead the discussions on environmental responsibility and to make the vast majority of decisions about what they should do. The organisers discussed among themselves what if anything they thought an appropriate response might be to any environmental challenges that rallying faced, and as part of this their views on environmental issues in society more broadly came into play. The kinds of outcomes or 'results' that the organisers wanted to see were discussed, with a particular focus on tangible or traceable effects on the environment in return for the effort, time or money that was put in. With the championship co-ordinator taking the lead, a small carbon offset charity focusing on the production of renewable energy in less economically developed countries, thereby creating employment in these countries, was selected as a repository for money collected to 'offset' the emissions of competing cars.

Whilst I am aware of the debates and criticisms of carbon offsetting, this case study nonetheless raised a couple of very interesting points. The first is the manner through which the charity was selected. The co-ordinator became aware of the offsetters through another championship that already had an association with the charity. That championship, a much smaller and more sedate organisation set up for those that enjoyed driving historic cars, had in itself become involved with carbon offsetting and social justice because the hotel at which it held its club meetings had a large-scale partnership with Indonesia through the same charity. As a result of the presence of promotional material and photographs in the hotel, as well as informal discussions between the hotel management and the car club committee, the decision to become involved with the programme was taken. This, in a very small way, illustrates O'Neill's (2007) argument about the potential to care for the environment through

care for other people. O'Neill argues that whilst everyone many not care for the environment directly, they may still care for their friends and their friends' happiness. If their friends' happiness is satisfied by care for the environment, then, O'Neill suggests it is in the interests of those who do not care directly for the environment to act in a manner respectful to the environment so that their friends' happiness may be fulfilled. What seems to have happened in this case is that through care for the preferences of those spatially proximate to them (that is, the hotel owners), the car club committee have decided to engage in an environmental practice that they perhaps would not have otherwise chosen to engage in – and by publicizing their involvement, a further set of competitors have in turn become involved in something they otherwise might not even have known about.

The second point is the reception of the motor sport participants by the charity itself. I was intrigued as to how a charity with strong interests in both climate change and social justice would view an attempt at association from those Tompkins (2007:vii) describes as “people who wantonly disfigure landscapes in the pursuit of thoughtless, gas-guzzling ‘fun’.” For there was also the possibility those that motor sport communities might try to cooperate with in an attempt to reduce their environmental impact would be equally hostile to them, viewing their practices as outright objectionable. The view of the climate change volunteer I spoke to was not as strong as this:

it's not ideal. I think to say it's a problem is, is too negative [...] but like anything if we can work with those that sort of detract from our message a little then other messages will get through and er, who knows there might be a Formula One on green fuel one day! Erm but it, it's particular you could look at it that it's particularly important to get people that are involved in motor sports to, not see the error of their ways, that's, that's being too erm, that's not being unbiased, but to see that er just to make them have clarity on what they're doing, let's put it like that. And if they know that they can mitigate er some of the pollution then I think it's all, you know, strength to their elbows that they've, they've er done that and not sort of had their head in the sand

This response seems to illustrate very well the idea of agreement in practice and private deliberation over principle that Light, Weston and others aim for. On one

hand, the potential of mitigating pollution and the imagined future of motor racing running on green fuel illustrate areas of practical action that can be agreed on without either those participating in motor sport or some that may be opposed to it compromising their ethical principles. At the same time, however, “it’s not ideal” and “make them have clarity on what they’re doing” illustrates the importance of ongoing dialogue, for it suggests that broader disagreement over principle continues even after concrete outcomes have been agreed upon – an excellent illustration of Norton’s (1991) belief that agreement over practice can come before agreement or full deliberation over principle.

In a similar manner to Thomson (2003) with her study on lead-free petrol in the USA, then, I tried not to be over-cynical and overlook real progress as a result of focusing too much on the philosophical or ethical aspects of environmental actions. This does not mean I completely ignored the wider ideas behind why people were doing what they were doing, but I was careful to retain some level of focus on what was actually being achieved as a result of the deliberations. The practicalities have been discussed above, but an interchange during the participatory work suggested the wider value of the kind of work I was involved in:

Bill: Well if the earth’s supposed to be getting warmer and we’ve got all this climate change going on, then why have we had three feet of snow for the last six weeks?

Chris: That’s weather, not climate Bill, don’t you know? They’re two different things apparently.

Bill: I don’t know, the whole thing’s a load of rubbish.

Chris: It doesn’t matter anyway, we’re safe now, the Himalayan glaciers aren’t going to melt next Tuesday. They calculated wrong and they’re not going to melt for another three hundred years or something like that.

An interaction such as this is perhaps not the ideal example of Midgley’s (1989) target of publics able to actively engage with debates and be critical of ‘expert’ knowledge, however it does show a certain awareness of current environmental affairs and critical engagement with ‘expert’ knowledges. For instance, Bill

questions how a heavier than usual snowfall can dovetail with increasing global temperatures, and Chris corrects him by elaborating how (albeit in a somewhat mocking tone) extreme weather events can still occur under increasing temperatures. Chris then goes on to pick up on some uncertainties in scientific data and challenges the idea of science being a constantly correct, objective body of knowledge, a point he continues with reference to energy-saving lightbulbs:

if you break them you've to call out the army or something like that, open all the windows and not go back into your house for three weeks until it's made safe. That's the problem with all of these things, how do we get rid of them? And what they're finding now is that because these bulbs produce less heat, people are having to turn their heaters up more to keep their houses warm, so they're still using energy

There is a danger here that these uncertainties can be turned around and used as a justification for continuing current unsustainable practices, but at the very least the stakeholders involved in this small-scale participation were beginning to question environmental issues and engage with the science behind it in a way they may not have done before. The example of energy-efficient lightbulbs further illustrates an emerging understanding of the complexity of environmental issues, in that what may at first seem to be an environmentally beneficial action can have negative consequences elsewhere in space or time. Sagoff's (2004) study of deliberation over a forest near Quincy in California illustrates the tremendous amount of effort and pressure that is often needed to affect even very small-scale practical changes, however what I believe is equally important here is some of the less tangible benefits that may have resulted from the discussions. Burgess et al (2007) noted that participants in their work reflected on the issues discussed between sessions and found participants saying it affected the way they interacted with the media or with other people. In my studies too, participants who may not otherwise have engaged with debates on environmental issues were not only considering these issues and building on each other's knowledges, but also returning to subsequent meetings prepared to talk about things they had seen or read in the media and had formed their own opinions of after critical consideration.

By following some of the principles of environmental pragmatism in the case of rally driving in Scotland, a number of small but significant changes to practice were achieved. For the rally championship, this included the offsetting of carbon emissions (however debatable this is) through an organisation that promoted clear links to where trees were being planted and money spent, the increase in awareness through promotional material at events and articles on a website, and the opportunity to discuss environmental issues in a calm and supportive setting. For the single event, this took the form of increased engagement with the public through the establishment of a pre-event public relations day in association with local police, a public forum and the routing of the event away from other members of the public who may object. Whilst a number of debates over principle continue, not least the ongoing scepticism about environmental science and the challenge of changing practice in ways that range beyond offsetting emissions and increasing awareness, agreement over practice and deliberation over principle was to a certain extent possible.

7.2.2 Contribution to environmental values from this case study

The study also raised a number of interesting points that contributed to the current literature and thinking on environmental ethics and environmental pragmatism more generally. The first was the heterogeneity of views of nature displayed by rally driving participants – that is, nature was not always spoken about as something to be dominated. Indeed, Donald, a retired rally driver, recounted one of his favourite forests to drive in:

it, it was a flowing, it, it just, you could get the car moving and you could keep it flowing all the way and there was, there was when you know the forest then you know where all the little problem bits are and you take them easy but the rest of the forest really flowed

Compare this to the account of Martin, an international-level co-driver:

I mean some of the stages in Argyll where there's huge big drops, very often I, I just used to put something at the side window there so that I couldn't see

it, honestly because it does, it intimidates you and again if it's on the driver's side of the window it slows them down as well

I drew on this extract from Martin's discussion of forest rallying in Chapter 6 in order to illustrate the role of the physical properties of the landscape in making the rally experience valuable, but it is worth re-visiting it as it also flags up a key point about the relationship to nature in rallying. In both of these accounts, the environment surrounding the car is not portrayed as something to be dominated in the way Wuerthner (2007) talks about off-road vehicles as being marketed. In Donald's description, the environment is instead something that the driver, co-driver and car must cooperate with in order to achieve the fastest results, so that instead of flattening one's way through the terrain, the rally crew must work with the topographical features of the forest road to control their vehicle. When Martin talks about the surroundings of the rally car, by contrast, he seems to be discussing a landscape of fear that shapes feelings of awe, a landscape where, due to the steep drops off the side of the roads, the driver can end up slowing down through fear of crashing. In the case of Martin, what is also interesting to note is that to cope with this fear, he reduces his capability to see the landscape by blocking out the side window – although he already has knowledge of the topography due to past experience and the contour lines on his map, by removing the ability to see the features he is describing to the driver much of the fear is removed.

Having said that, it is important not to get too carried away with this idea of nature being capricious, dangerous or threatening to motor sport participants. When the skilled amateur crew of Lee and Scott describe a corner as a "bad right", for instance, what gives the corner its negative value is the potential it has to cause harm to either the humans in the car or their vehicle. That is, whilst the data I have looked at do suggest that the rally driving relationship with the natural environment is more complex than humans and their vehicles dominating nature outright, the respect for nature they do show and the understandings they have of the potential for natural processes to be destructive is perhaps grounded in their own interests of finishing the event and not sustaining physical injury rather than any broader respect for the natural environment.

Nonetheless, this does create a potentially useful opening in fostering environmental responsibility among motor sport participants. Whilst actions taken out of understanding of the consequences natural processes can have on humans – for instance slowing down, braking, changing the course of the vehicle to avoid rocks or logs - are carried out in the interests of success or survival, there is at the very least an awareness of the consequences reckless human behaviour can have. This moves beyond Holling's (1978) model of nature placid into other models of nature where human actions can be seen to have effects on nature, and may be a starting point for encouraging practitioners of motorised recreation or at least motor sports to think about the effects of their mobilities.

Second is the complexity of ecological identity formation and expression. This is perhaps encapsulated best by Hydén and Bülow's (2003) question 'who's talking?' which stemmed from their finding that focus group participants spoke with a number of different identities, both private and public, over the course of a single session. I talked about this at some length in Chapter 6, so rather than re-quoting extracts from participants' accounts let me simply reiterate the main points and focus on taking them further to demonstrate the challenges they pose for applied environmental ethics. Neither farmer and champion rally driver Bill nor mountain bike rider and trail designer Steve can view the environment in a recreational context away from their professional identities. For Bill, the way he views uncertainty over environmental impacts as a justification for motor sport organisers doing nothing with regard to environmental responsibility is informed by the mixed messages he has received from the EU over how to manage his farm. For Steve, the intimate and sustained engagement he has with particular locations while maintaining trails means he cannot go riding in those places without seeing the landscape as 'work' he will soon have to do.

Stakeholders' views of the environment, and of environmental issues, therefore, come as a result of experiences and conjectures they bring from both their private and personal lives – and, as Steve illustrates by referring to riding and designing in

the same sentence, these different voices can switch at short notice or even occur simultaneously. Related to this is the issue of identities changing over time, as seen in the way motor sport television programme producer Greig's personal and professional involvement changes over time. His participation progresses from driving to navigating to filming for pleasure, with garage management and the establishment of a filming company going on professionally. The ways in which Greig therefore engages with the environment whilst being involved in rallying change over time, and as identities change, then the type of embodied experience and thus the nature of values that may be shaped also has the potential to change.

In terms of my research and environmental values work more generally, this is an important point to bear in mind, for it ties in well with Light's (2000) suggestion that ecological identities can perhaps work most effectively when twinned with other identities. What I would also like to add in this regard is Hydén and Bülow's (2003) avocation of the importance of thinking how professional and private identities interplay to give rise to particular expressions, and also how a change in other identities over time may affect the kinds of ecological identities that are expressed and the way in which participants may subsequently value and act towards the environment.

Third is the importance of paying attention to the world views of stakeholders when thinking how outcomes of agreement on practice and deliberation over principle may be reached. This was alluded to in the previous section where ideas of environmental pragmatism and a plurality of views existing simultaneously was used as a means of getting past the initial hostility towards environmentalism among the rally organisers, however here I want to focus on the multisensual nature of environmental problems and environmental claims-making. A clear illustration of different views of spatially proximate places begins with sled dog racers Mike and Karen:

Karen: I don't know if it was the four-wheel drives or whatever but it was chewed up and what they did to actually just repair the forest was go up the back and excavate out some of the big chuckies, the big stones and put that down on the trail

Mike: [...] on what they reinstated it with last time, is just, you could not run the dogs over it, it was way, way too rough

Karen: Certainly not on a rig, that sort of, like that, because you just can't, you don't have the control

This is in contrast to motor sports rule maker Tom's perception of environmental issues relating to motor sport:

the most obvious environmental impact of motor sport is noise [...] we have a system of officials who are trained and licensed to monitor noise and so on, so that's been going on for a long time. And there's been a greater awareness and about fifteen years ago, erm, in the British Touring Car Championship, they made a requirement that catalytic converters had to be fitted

For Mike and Karen, damage to the surrounding environment is sensed largely through touch, in particular the 'roughness' of the forest road after an off-road rally several weekends previous. This roughness is not sensed by the riders themselves, rather it is something that is 'felt' by their dogs and also by the reduction of control on their riding rig. In other words, claims to environmental damage from within the dog sledding world view arise out of the effect physical damage to the terrain has on the teams' dogs and the effect it has on the control of their vehicles. On the other hand, Tom's description privileges noise as a cause for concern regarding motor sport and the environment. Tom's explanation also foregrounds the role of measurement and calculability in the motor sport world view, in that noise is seen as something that can be monitored and controlled at an appropriate level of decibels (Motor Sports Association, 2011), whereas emissions can similarly be reduced to an appropriate level through the installation of a catalytic converter.

The reason I see this as being important for literature on environmental values and the reaching of workable outcomes is that there is the continued need to pay attention to the different ways in which various stakeholders view the natural environment if one is to understand how conflicts occur and how certain practices come to be seen as ethically objectionable. Included in this must be stakeholders such as those involved with motor sports whose world views are based heavily on numbers and calculation. I am not trying to claim that numerical or monetary valuations of nature

have to be used in order to engage such stakeholders in environmental deliberation processes, only that if practical outcomes are to be achieved it may be necessary to think how agreements can be reached that satisfy the need for calculability of some stakeholders without compromising the more holistic world views and ethics of others. This ties in well with Lockwood's (1999) thoughts on 'appropriate' units of value expression and Irwin's (1995) suggestion that it is perhaps better to consider a plurality of cognitive frameworks rather than one 'right' one. It is, to put it differently, a reminder of Weston's (1985) urge to celebrate difference and accept that probably incompatible ways of viewing the world exist at the same time. Practical solutions in this vein could be just the kind of 'temporary stopping points' in an ongoing dialogue over environmental values to which Light (1996) refers.

Fourth is the potential for place values, in particular Holland and O'Neill's (2003) idea of narrative trajectory of place, as a way of working round wildly divergent world views and imagining sustainable futures for particular locations. This follows on from Norton and Hannon's (1998) belief in the role of place values in environmental pragmatism, but what is of interest here is the value participants in motor sport invest in space in spite of Augé's (1995) and Urry's (2006) critiques of the placelessness of automobility. During the in-depth interview and participant observation phases of the fieldwork, I encountered numerous references to the places that were valued by Scotland's rally driving communities, central in which was the role of memory in making places meaningful to rally competitors. This may be the memory of a strong result in the case of Donald's relationship with Devilla Forest in Fife, an exciting experience shared with a good friend on Drummond Hill in Perthshire for Martin, or simply satisfaction at having survived a high-speed journey through the undulating terrain of Glentool Forest in Galloway for others. Given that rally driving need not take place in the kind of decontextualised vacuum early critiques of automobility describe, (however, authors such as Merriman (2006) have more recently started to pay attention to the spaces through which automobility takes place) it is possible to imagine a narrative of rally driving in certain locations emerging over time, consisting of the various memories, results and stories of competitors on yearly events. This narrative of place over time seems to follow

closely Holland and O'Neill's idea of a narrative trajectory of place, where debates over the future management of places can be resolved by asking the question of what the most appropriate narrative trajectory for that place might be in light of what has gone before. For rally driving, then, this might involve thinking about the places rally driving communities value driving in the most, and what might need to be changed in order to allow these rich narratives to be continued. It is also important to stress here that although there is a cultural dimension to the values rally participants invest in certain locations, there is a strong sense that the physical properties of the natural environments in which rallying takes place play a vital role in making the experience a meaningful and valuable one. As Askins (2009) argues, the way the body translates physical sensations is an important part of emotional engagement – and as many of these physical sensations in rallying stem from the way the terrain rises, falls, twists and weaves, I believe it is impossible to understand the value of the rallying experience without taking seriously the relationship between the crew, their vehicle and the physical environment.

At the same time, however, it is vital to remain open to the possibility that the 'best' narrative trajectory may be one where rally driving stops in particular places. Path designer Keith gave an example of this from a conflict between off-road motorcycle riders and a local community in the west of Scotland, where a pattern of use of community forests by young motorcycle riders had emerged. The situation was resolved by the construction of a purpose-built riding centre nearby that contained all the topographical features – jumps, corners, high-speed straights – valued by the motorcycle riders, thereby eliminating the need for the riders to enter the community forest. Mountain bike trail designer Steve similarly spoke of areas of forest in Dumfries and Galloway where mountain biking is encouraged in order to provide better facilities whilst reducing the potential for conflict in other forest areas. It may well be the case, then, that for narrative trajectories of rally driving to continue sustainably in some locations, it may be that the appropriate narrative trajectory is for rally driving to stop in other places. In terms of how this links into environmental values and environmental pragmatism, it serves as an elaboration of Norton and Hannon's (1998) idea of place values in environmental ethics. By drawing on

Holland and O'Neill's (2003) 'narrative trajectory' concept, it may be possible to illuminate how a particular activity – in this case rally driving – has come to be established in an area and understand why that place is valued by a particular group of stakeholders. As long as this is accompanied with the acceptance that the most appropriate narrative trajectory may be for some activities to stop in some places, this may be an attractive way of allowing diverse practices to continue without compromise to the values of other stakeholders.

Fifth and final is a note of caution. The preceding points have all attempted to open up areas where real-world situations can benefit from the insights of environmental pragmatism and where environmental pragmatism can perhaps gain from the case study of rally driving in Scotland, however the difficulty of actually getting stakeholders to agree on common ground and deliberate should be reiterated. Sagoff (2004) alludes to this with reference to discussions over management of a forest in Quincy, California, where it took the impending danger of a forest fire to persuade the various actors to engage in dialogue and act in the commonly-held interest of the forest. In my participatory work, for example, after a prolonged engagement with organisers and competitors lasting over eighteen months, the planting of a small number of trees, a financial contribution from competitors, increased engagement with non-participating publics and some critical discussions on the science behind climate change were achieved, with further incremental changes in practice due to tighter regulation from the MSA. This may make my efforts, and the efforts of the organising committees that supported me, seem almost futile, but the reason I raise this is to highlight the importance for the environmental pragmatism literature of keeping in mind the challenges that face those wishing to alter human behaviour in practice, and keeping a continued appreciation of the slow and gradual nature of practical change.¹⁸

¹⁸ An example I like to use here as a concluding point is the issue of tobacco sponsorship in Formula One racing. Fifteen years ago, virtually every team was sponsored by a tobacco company, with cars and merchandising liveried accordingly. As of the start of the 2011 season not a single vehicle competing in the highest level of motor sport carries visible tobacco branding. Chapman (2002) discusses the slow and reluctant nature of this change, but what I believe is key here is that change *was* possible through a combination of changing social values, stricter governmental

7.2.3 Concluding remarks

I have argued that environmental values thinking and environmentally responsible practice should enjoy a close and reciprocal relationship if Rolston's (2007) challenge of an ethics of respect is to emerge. I have suggested that environmental pragmatism is a useful way of working towards this ethics of respect in practice, and I demonstrated how the tools and ideas of environmental pragmatism helped to understand some of the scepticism towards environmentalism among the stakeholders with whom I was working, thus allowing agreement over practice to emerge. It is important to note, however, that broader issues of humans' relationships to nature were not set aside as a result of this – indeed, discussion over these ethical points continued and helped to shape some of the practical agreements.

I also contested that engagement with those perhaps hostile to environmentalism can help to increase the practical applicability of environmental values work. I argued that dismissing activities such as motor sport offhand as a strongly anthropocentric activity may rule out potential areas of agreement on practice. I then highlighted the value of the concept of ecological identity in explaining the complex ways in which humans reason round their behaviours towards the environment. I looked at the ways in which place matters even to motor sport participants, and suggested that O'Neill, Holland and Light's (2008) idea of narrative trajectory of place may be used as a way of imagining more sustainable futures for the places stakeholders value. Finally, I pointed out the difficulty of making even small steps in practice.

It has not been my aim here to defend motor sport. Rather, I have tried to understand why people continue to take part in an activity that is fundamentally destructive towards the environment, considering what it is they value about the natural

regulation and the ethical conviction of several individuals, Despite arguments that motor sport could not continue without tobacco backing, it has proved to be possible. The concept of motor sport is thus not static, and just as moving on from tobacco sponsorship was able to happen, so a response to environmental challenges that allows motor sport to continue in a slightly different form may be possible.

environment in this kind of interaction and thinking how these values may be fulfilled whilst removing some of the more environmentally damaging aspects. I am a little concerned, however, that some of the arguments I make could be turned around and used as a defence or justification for the uncritical continuation of an activity such as this. Having said that, as was illustrated in the interaction between Bill and Chris in the participatory project, if this means that a group of people who otherwise would not consider environmental issues are engaging with academic work, critically evaluating arguments on their own terms and attempting to understand *why* others see their practices as so objectionable, then I would argue this is at the very least a step in the right direction.

If Rolston's (2007) idea of an ethics of respect for nature is to emerge, perhaps it needs to encompass the stakeholders not so amenable to environmental thinking as well – as landscape architect Simon so neatly put it in one of my research interviews, “not just the easy ones, but the difficult ones too”. Environmental values thinking has a key role to play in understanding why people explain and justify certain behaviours towards the environment, but at the same time paying attention to how people consider the environment in their daily lives can perhaps help to ensure the continued relevance of environmental values work to very pressing real-world issues.

8. OVERALL CONCLUSIONS IN BRIEF

8.1 Methodological conclusions

There are four broad methodological conclusions I want to flag up from this case study of research into environmental conflict and encouragement of environmental responsibility. Before I do, however, I would like to mention something about what this research says to ideas of environmental philosophy and how we ‘do’ practical philosophy and applied environmental ethics. I have argued that engagement with those perhaps hostile to environmentalism can help to increase the practical applicability of environmental values work. For instance, this case study illustrated the heterogeneity of world views that can exist even in a practice such as motorised recreation, and that dismissing this kind of mobility offhand as a strongly anthropocentric activity may rule out potential areas of agreement on practice. The complexity of ecological identity formation and expression has been highlighted as something environmental values thinking needs to continue to pay attention to, in particular the complex ways in which humans reason round their behaviours towards the environment. Similarly, rich narrative accounts of the places in which rallying takes place illustrate that motorised recreation does not happen within a decontextualised vacuum, and thus that the idea of narrative trajectory of place may be used as a way of imagining more sustainable futures for the places stakeholders value. Nevertheless, the difficulty of making even small steps in practice, and thus the importance of not raising expectations too high, has also been pointed out.

The first broad methodological conclusion, then, is the value of understanding the embodied experience of the environment in cases like this. As I have illustrated with the examples of observation of rally driving and field archery, consideration of embodied experience can illuminate the multisensual nature of different mobilities and help to form an understanding of what exactly different stakeholders mean by ‘the environment’. If practical and workable outcomes are to emerge, it is perhaps important for studies to pay attention to what the stakeholders in question mean when they refer to the environment, so that the outcomes are in keeping with the

perceptions of the environment the stakeholders in question hold. Close consideration of embodied experience can also aid in exploring where the value in different kinds of mobility may lie and thus help to understand why people continue with activities such as rally driving in spite of ethical and environmental criticisms. By looking carefully at the embodied experiences of the environment different groups of people have, I hope to start to move towards taking Berleant's (1992) thoughts on the phenomenology of environmental experience as a source of environmental value and operationalising this to imagine more sustainable futures.

Like Berleant, however, I am also a strong believer in the contextual nature of embodied environmental experience. The second methodological point I would like to make is therefore about the complex nature of ecological identity work, and the importance of a quiet, reflective setting where participants can be encouraged to talk in more depth about the values they hold and their actions within the environment. I have shown in this study that although much can be gleaned from participant observation and ethnography, reflection away from the field can bring a number of explanatory issues to the fore that may not be apparent during the regular course of activity. These broader contexts are thus vital if a full understanding of environmental values on which practical outcomes can be based is to be achieved. These can include memories of places or people, life histories and the bringing together of different environmental knowledges. In this case at least, in-depth interviewing has proven to be of great value. The narratives and stories elicited through the interviews have given significant additional information and afforded a great deal of analytical purchase on the different kinds of mobilities I have been exploring.

The third methodological point is the challenge of acknowledging and representing the complexity of contemporary environmental debates, which is where I see the transferability of my work lying. I hope to have sketched out in this research a portable methodology that brings together some of the different strands that contribute to the way people value and act towards nature. The questions of ecological identity work that I have looked at illustrate the complexities

underpinning people's behaviour towards the environment. If attainable outcomes are to emerge for very real and pressing environmental issues, then perhaps a nuanced understanding of how different knowledges are evaluated and world views are developed is required in an increasing number of situations. In other words, acting in a more responsible manner towards the environment perhaps requires us to think what the environment means to different stakeholders, how divergent actors value it and how they can be encouraged to be responsible in a way that is in the first instance compatible with their way of valuing the environments they inhabit. Furthermore, affording consideration to how stakeholders understand their relationship to the environment can illuminate perhaps unconsciously held understandings of environmental processes.

The final methodological point concerns the role of the researcher. As Midgley (1989) believes, we must situate ourselves within debates and cannot 'sneer from the sidelines'. I make no secret of the fact that I am enthusiastic, passionate even, about motor sport and that my motivation for doing this kind of research came in the first instance from my own concerns about how something so arguably destructive to the environment could square with the academic work on environmental ethics that also interested me. As long as this kind of proximity to the research topic is kept in check by making the researcher's feelings explicit and by regularly discussing the researcher's relationship to the field with colleagues and supervisors, I have argued that close proximity to the research can afford valuable analytical purchase – as I demonstrated in Chapter 5 when interpreting the co-drivers' commands from the video recordings of crews driving through rally stages. Particularly for work with a pragmatic focus such as this, an understanding gained through practical experience of what is likely to be engaging and what is realistically achievable is helpful. Being close, or getting close, to the research is therefore nothing to be apologetic about, and many of the issues it raises are simply magnifications of the questions all qualitative researchers ought to be asking themselves.

8.2 On the reciprocal relationship between theory and practice: conclusions

I wish to conclude by returning to my grounding in environmental pragmatism and applied environmental ethics, understood as a form of environmental ethics where theory and practice enjoy a reciprocal relationship. What this means is that central to the outcomes of my research should be the practical implications of the research, and also the contributions the study can make to existing theory on environmental pragmatism and environmental ethics more broadly.

8.2.1 Environmental problems can be multisensual

What I mean by this is that the ways in which claims to environmental damage are made, and the evidence on which these claims are based, draw on a wide range of senses. For instance, Motor Sports Association rule maker Tom identifies noise as a key environmental issue motor sport has to tackle, pointing to the responsibility of event organisers and regulators to reduce the amount of noise emitted, or to ‘manage’ this noise in such a way as to minimize potential for conflict with other stakeholders. Sled dog racers Mike and Karen, by contrast, bring up the tactile as evidence for environmental damage from motor sport, citing the rutting of a forest track from competing off-road vehicles as something that made the road impassable to their dogs and riding rigs. Climate change volunteer Brenda, on the other hand, uses a more complex combination of her experiences of sound, sight and smell to explain why she feels Formula One races are bad for the environment. For stakeholders experiencing the environment, and the ways it is damaged, through embodied mobility, a range of different senses are drawn on to make claims to environmental damage or potential sources of conflict.

In comparison, analysis of landscape guidelines for forests and a discussion with a forest landscape architect focus almost exclusively on the visual as a source of conflict. Landscape character assessments appear to concentrate largely on the effects forest plantation or clearing will have on the visual properties of the landscape, seemingly without so much consideration for the other sensual effects (for

instance, on a walk through the woods with my video camera I was startled by the sounds of timber extractors working away in the distance producing a whole range of clunks and bangs).

Within this there is also the role of what Ingold (2005) might term weather worlds in shaping environmental values. Weather perhaps plays a vital role in whether or not particular environmental experiences are memorable or valuable to stakeholders. This fits in well with current debates within human geography on atmospheres, emotion and affect (Anderson, 2009) and further demonstrates the importance of paying attention to how the environment is sensed and engaged with if one is to understand how environmental values are shaped and performed.

Evaluations of environmental conflict – or attempts to pre-empt conflict through engagement and deliberation - need to pay attention to the different ways in which environmental damage can be sensed, in particular how things sensed in non-visual ways can be used as the basis for claims to environmental damage. The challenge therefore becomes one of ensuring appropriate fora are provided for these very different methods of sensing and gauging environmental damage to be deliberated. I believe this is important so that Spash's (2009) concerns about 'new environmental pragmatists' privileging monetary valuations of nature are addressed, instead (re)framing environmental pragmatism in the terms Light (1995) sets out, where environmental pragmatists accept that one world view alone is perhaps not enough for an appropriate environmental ethic.

8.2.2 The risk of assuming opposition

The participatory phase of the research has been, if nothing else, a useful exercise in understanding how opposition to motor sports is perceived by practitioners of this kind of motorised recreation. Perceptions of environmentalists based on popular media stereotypes are common, for instance the idea that nearly all climate change protestors are students 'funded by the taxpayer' or a rally driver mockingly attaching a free sticker from *The Guardian* newspaper to the boot of his car (see Figure 8.1).

Figure 8.1 – free sticker from *The Guardian* newspaper attached to the rear of a rally car.



Source: photo by author.

Whilst motor sport participants are often very keen to make their scepticism or hostility towards environmentalism known, however, I have encountered very few people who have actually spoken to other users of the same spaces, let alone come into conflict with them.

Discussions with those involved in other kinds of forest recreation indicate a stronger opposition to unregulated access takers, in particular mountain bikers and 'dirt' motorbike riders. These bike riders are seen as a nuisance due to the unregulated nature of their access, which means they often encroach on the activities of others, cause conflict over access and allegedly intimidate other users with 'aggressive' bike designs and clothing (especially so for motorbike riders). Rally driving is seen as being of limited concern due to its highly regulated and well-publicised nature – in other words, other stakeholders know well in advance where rally events will be and when they will be held, giving them plenty of time to seek alternative locations or reschedule their planned activities. Several participants do flag up damage to roads and carbon emissions as causes for concern in relation to rallying, but also concede that these problems are not limited to this kind of recreation alone.

In terms of the practical implications of the research, this suggests that much of the hostility towards environmentalist thinking within motor sport is based on *perceived* opposition from an amorphous ‘green lobby’ (Collins (2009) and Saward (2010) stand as fine examples of this) rather than any more careful consideration of what precisely other stakeholders may find practically or ethically objectionable about motor sport practices. Stricter environmental regulations passed down from the Forestry Commission or the MSA seem to be conflated with the idea that there is a constant and ever-increasing objection to motor sport. More broadly, this links in well to Sagoff’s (1992) warning of the danger of assuming polarised positions from the outset and illustrates very well Sagoff’s point that much common ground may be found in practice between divergent stakeholder groups. At the same time, of course, this case study suggests there is value in unpacking why stakeholders more hostile to ideas of environmental responsibility come to assume that other groups find their practices objectionable and thus adopt a defensive attitude when dealing with environmental issues. Understanding what it is about the way environmental issues are framed that makes some stakeholders more defensive can perhaps help to inform different ways of engaging with such groups, without running the risk of alienating them or making them feel further disenfranchised.

8.2.3 What motor sport stands for

Perhaps *the* key argument laid down by motor sport participants in response to environmental issues is that in relation to the total environmental impacts of humans on the natural environment, the impact of motor sport is minimal. Rule maker Tom encapsulates this so neatly that I will repeat his words again here, saying “if you stopped every competitive engine tomorrow it wouldn’t even cause a blip on the overall graph.” Although as an environmental pragmatist I am of course concerned with the practical dimensions of environmental debates, I do not take this to mean that the continuation of motor sport in its present form is acceptable. Rather, I use the very valid and reasonable point made by Tom, and many others like him, as an illustration of the importance of thinking beyond the carbon emissions and considering what motor sport stands for, what environmental values it might shape

and why it may be objectionable to those with different world views. After all, I have argued that the kind of ethic of respect for nature that Rolston (2007) believes we should aim for also entails a certain degree of respect to the environmental values of other groups of humans.

Further, this raises questions of scale. At odds with the assertions of Tom, Greig and others who see the environmental impacts of motor sport as ‘minimal’ at a global level, at a more local scale the effects of motor sport on the environment – and the other users of the environment – can perhaps be felt more strongly. The noise Brenda heard at the Monaco Grand Prix, the rough forest tracks Mike and Karen battled through and Duncan’s concern about gravel flying into watercourses all stand as good examples of the environmental damage even seemingly minor pursuits can cause at a local or small ecosystem level.

There is also the issue of perception here. This follows on from my point above about how motor sport participants perceive other people and considers how other people might perceive motor sport. Regardless of whether or not an entire season of Formula 1 racing burns less fuel than a single trans-Atlantic passenger flight, for instance, grand prix racing arguably symbolises the ruthless use of natural resources in pursuit of the entertainment of a largely white, male and middle-class audience. I would argue – and I hope my study has shown that this could be applied to many kinds of human activity that have an effect on the natural environment beyond motor sport – that reflection is required on what exactly makes motor sport a valuable experience for so many people. If the rich narratives of place, powerful relationships with humans, landscapes and machines, and long life histories that motivate some to participate in motor sports can be captured, then perhaps more sustainable forms of motor sport that remove the more environmentally damaging and objectionable elements can be imagined. In turn, by reflecting carefully and critically on what is valuable in the embodied and emotional experience of driving a car at speed for pleasure, and acting accordingly to preserve what is valued whilst minimising the more environmentally damaging aspects, then perhaps motor sport can set an example for imagining more sustainable systems of automobility.

GLOSSARY OF RALLY DRIVING TERMS

Class – cars competing on a stage rally are divided up into a number of different categories based on their performance characteristics. As it would be very difficult for a car with a very small engine to complete the course quicker than a much more powerful vehicle, competitors' vehicles are divided into classes in order to give crews throughout the field something to compete for. At the end of the rally or championship, prizes are awarded to the most successful crew within each 'class', however any class of car can win the event outright.

Typically, classes are divided according to the engine capacity of the car, however the number of driven wheels (four-wheel drive, front-wheel drive or rear-wheel drive) or the presence of a turbocharger may also be used as criteria to separate classes.

Crest – a slight incline in the road surface, not great enough to cause the car to leave the ground if it crosses the incline at speed. A crest may obscure visibility of the road ahead, with only sky or trees being visible beyond the summit of the road.

Cut – a command meaning the driver may drive over the vegetation on the inside of an upcoming bend. If no stones, ditches or logs are present that may damage the car, the co-driver may instruct the driver to 'cut' the corner and drive on the area on the inside of the bend, thereby saving time.

Co-driver/Navigator – the member of the rally car's two-person crew who sits in the passenger seat. The primary job of the co-driver is to give the driver instructions on the nature of the upcoming road, in particular the severity of corners and information on any severe hazards. In addition, the co-driver is also responsible for ensuring the crew follows a strict timing schedule, arriving at the different sections of the event at the correct time so as to avoid penalty.

n.b. in this study the terms ‘co-driver’ and ‘navigator’ are used interchangeably, however there is a subtle difference between the two phrases. Use of the term ‘co-driver’ implies the passenger’s duties are primarily concerned with informing the driver of the nature of the road ahead, whereas ‘navigator’ suggests the passenger’s duties are more concerned with reading Ordnance Survey maps and preparing their own descriptions of the route from previous experience. For some rally competitors, the word ‘navigator’ carries connotations of higher skill and mental dexterity.

Crew – the two-person crew consists of a driver and a co-driver/navigator. They work together to ensure they avoid accidents on stage, drive as quickly and safely as possible, and reach the end of the rally.

Driver – the member of the rally car’s two-person crew who sits in the driving seat. The driver has ultimate command of the instruments used to control the vehicle by virtue of being in close proximity to these wheels, dials, pedals and levers. The driver’s main responsibility is to drive the vehicle as quickly as possible through the competitive sections of the rally whilst avoiding accidents.

Flat – the command ‘flat’ means that it is possible for the driver to tackle the upcoming section of road whilst keeping his or her foot completely on the accelerator. That is, the corner or incline is benign enough that it can be driven at full speed or full acceleration without any need to reduce engine power or apply the brakes.

Flying finish – the time a crew takes to complete a competitive rally stage is measured from the time the countdown clock reaches zero (usually at the start of a minute) to the time the crew’s vehicle reaches the end of the stage. As it would be dangerous to time the crews until the vehicle comes to a complete standstill (drivers could try to brake too late, putting officials’ lives at risk), the point at which the stage timing stops is instead marked by a line that the cars cross at full speed. At this point, an electronic timing beam is stationed, and when this beam is broken the crew’s time for the stage is recorded. After the flying finish, the crew then have 500 metres to

slow down and come to a standstill. The flying finish is marked by two white boards featuring red circles at either side of the road.

Group A – a classification of rally car used on many stage rallies. Group A cars are those whose mechanical components have been modified significantly from a road-going production car to increase performance. Nonetheless, in Group A the only modifications that may be carried out are those that have been sanctioned by the international governing body for motor sport – for each model of car, the governing body has a list of modifications that may be permitted if the car is to run in Group A class.

Group N – a classification of rally car used on many stage rallies. Group N cars are those that differ little from standard road cars, with the only major modifications being the addition of safety equipment. That is, engine, suspension or transmission modifications that increase power are generally outlawed. The attraction of Group N for many is that it leads to closer competition between crews with lower costs, as expensive performance-enhancing measures are prohibited. Group N cars' specifications are strictly policed, with cars being checked by officials before and after events to ensure compliance.

Hairpin – an extremely tight corner that doubles back on itself. Named after curved metal hair pins due to the similar appearance of both from above.

Handbrake turn – a turn executed by using the vehicle's handbrake. The handbrake is normally used for securing a stationary vehicle, something achieved by locking either the car's front or rear two wheels depending on the model. By keeping the handbrake button depressed and briefly pulling on the handbrake lever, however, a competition driver can achieve the effect of locking two of the car's wheels and thus allowing the car to pivot on the spot. This permits extremely sharp turns to be made without the need to reverse or follow a wider (and thus slower) trajectory.

Jump – an incline in the road of sufficient height and steepness to allow a rally car to become airborne if traversed with enough speed. The road beyond the jump may or may not be visible, and damage to the car from a heavy landing is a serious risk if jumps are taken at too high a speed.

Notes/Route notes – these are the written descriptions of the route that the co-driver reads out to inform the driver of the nature of the road ahead. These explain whether the road is going left or right, and also give some indication as to the severity of the bend. Some crews prefer more qualitative notes that explain the difficulty of the corner (such as ‘easy’, ‘medium’ or ‘tight’) whereas others prefer more quantitative descriptions (for example the angle of the corner in degrees or the gear the car ought to be in in order to be at the appropriate speed for the corner).

Route notes are printed in large-scale typeface one-sided on portrait A4 paper, and are spiral bound to make route note books. On lower level events (such as the Scottish rally championship), route notes for all crews are produced by a single supplier who drives the stages several weeks before the event and produces a description of the stages. This description is then translated into a number of different qualitative and quantitative formats depending on crews’ preferences. The main purpose of route notes is safety as opposed to outright speed.

Pace notes – pace notes are similar to route notes in that they describe the nature of the road ahead, alerting the driver to any major hazards and giving him or her information about upcoming corners. The main difference between pace notes and route notes, however, is that pace notes are made by each individual crew themselves rather than by a central supplier. The crew will drive each section of the rally in the week leading up to the event, judging the severity of each corner and refining their descriptions with each passage (typically, three runs are required to adequately revise the descriptions). Unlike route notes, the principal aim of pace notes is speed.

Penalty – a rally crew may be given a time penalty for several reasons over the course of an event. The most common of these reasons is for entering a time control

either too early or too late. Over the course of a rally, each crew has to follow a strict time schedule where they have to enter checkpoints at auspicious locations (for instance, the holding area at the start of a stage or the exit of the service park where the car is maintained) at the correct time to the nearest minute. This is to ensure that the event runs to time and that cars do not travel too quickly on non-competitive public road sections.

The crew will have extra time added to the times they set on the competitive stages if they arrive at these locations either too early or too late – but the penalty for arriving earlier is much greater (one minute for every minute early) than for late arrival (ten seconds for every minute late). Penalties may also be applied for starting the stage before the countdown clock has reached zero, or for striking objects designed to slow cars down in-stage.

Rally – a rally is a type of motor sport event in which two-person crews strive to drive along a pre-determined course in the fastest possible time. Crews set off at preset time intervals (usually thirty seconds, one minute or two minutes depending on conditions) and are therefore driving alone as opposed to directly racing other vehicles. The winning crew is the crew who has completed the competitive elements of the course in the shortest time.

There are two main types of rally in Scotland:

1. Stage rally

A stage rally takes place on either gravel forest tracks or closed tarmac roads, usually during daylight. Not every section of the stage rally route counts towards the final result. The competitive sections of the route are always closed to traffic, and these sections may be linked to each other by sections of public road. On the sections of public highway, crews' times do not count towards the overall result and normal traffic rules apply as public vehicles will be present. The aim of these sections of the

public highway is merely to allow crews to access the closed, competitive sections of the rally.

In a stage rally, the co-driver reads out descriptions of the landscape features ahead to the driver in order to allow fast and safe progress, and follows a book of maps and junction diagrams to guide the driver through the non-competitive sections. On the competitive sections, times are measured to the nearest second or tenth of a second.

In a stage rally, as speeds are higher a range of safety equipment is required. Cars must be fitted with a tubular steel roll cage inside the passenger compartment to protect the crew in the event of an accident, and fire extinguishers must be carried. The crew must wear fireproof overalls and crash helmets, and stronger seatbelts are required.

2. Road rally

A road rally takes place on open public roads. Speeds are much lower than in a stage rally, and the emphasis is on navigational skill rather than outright speed. As road rallies take place on open roads, traffic rules apply and speed limits must be adhered to. Nonetheless, such rallies are held at night so that the headlights of oncoming cars can be viewed from further away and so that members of the public can see competing cars approaching from a greater distance.

In a road rally, virtually all sections of the route count towards the final result. The navigator uses Ordnance Survey maps to follow the route, and the crew must visit a series of checkpoints in succession. At each checkpoint, the navigator receives a cryptic clue that he or she must decipher in order to follow the correct route to the next checkpoint (these clues may take the form of, say, passing through certain spot heights on the map, crossing grid lines in a particular order or travelling a certain distance between junctions). To ensure the correct route has been followed, crews must note down the letters written on large wooden boards placed along the route –

time penalties apply for failing to note one of these boards. Time penalties also apply for early or late arrival at checkpoints.

As speeds on road rallies are lower, cars tend not to carry safety equipment and the crew members do not have to wear specialised safety clothing. Vehicles are rarely modified from standard specification.

Recce – short for ‘reconnaissance run’, a recce is carried out by crews on higher-level events in the week leading up to the rally. Reconnaissance runs are carried out at lower speeds (around 50 miles per hour) and allow the driver and co-driver to familiarise themselves with the route and refine their route descriptions. Typically, on the first pass the driver will call out his or her judgments of the landscape and the co-driver will write them down, on the second run the co-driver will read these descriptions out to the driver with the driver modifying accordingly, and the third run will be used for fine tuning. On Scottish championship events, reconnaissance runs are prohibited.

Road section – a non-competitive section of the rally route that runs between two timed sections of a stage rally. On a road section, national speed limits and traffic laws apply, and the road is open to the public. The time taken to traverse road sections does not count towards a crews’ overall rally result, but if the crew pass through the section too quickly (due to speeding) or too slowly (due to a breakdown) they will incur a time penalty. The purpose of road sections is to allow crews to travel between the competitive sections of the rally, as these are often in different forests or parts of the countryside many miles apart.

Service – this is a chance for the team’s mechanics to repair the car. Typically, service halts last around half an hour and take place in a centrally-located service park located equidistant from all areas the rally takes place in. The crew usually tackle two or three stages in between service halts, returning to the service park in between times to refuel/repair the vehicle/crew (!) and change tyres. The kind of work done here ranges from routine (tyre changes, refuelling) to more serious

mechanical and damage repairs. This work is carried out by a service crew of three or four members who do not compete on the rally, however with smaller teams the driver and navigator may assist with the tasks of servicing the car.

Square – a ‘square’ corner is used to describe a situation where the road ahead either goes left or right at a ninety-degree angle, thus giving the impression of the corner of a square if viewed from above. Often a square corner occurs when the rally route crosses or turns off at a junction between two roads.

Stage – a stage is the name given to a section of a stage rally route that counts towards a crew’s overall time for the rally. Stages are closed to traffic, and strict safety measures are put in place with doctors, ambulances, emergency rescue units, radio operators and trained rally officials required for each stage. The time a crew takes to drive through a stage is timed to the nearest second or tenth of a second, with electronic timing devices used to record the time the crew enters and exits the stage. The distance of stages can vary from less than one mile to fifteen miles, however on international rallies they may be significantly longer (up to thirty miles). On Scottish championship events, rallies feature forty five miles of stage, from which the results are calculated.

Time control – on both stage and road rallies, time controls are used to structure crews’ passage through the event. Various time controls are stationed along the rally route, and crews must enter these at the correct time, to the nearest minute, in order to ensure they remain on schedule throughout the rally. When the crew enters a time control, an official will make a note of the time on the navigator’s time card, and on a road rally the official will also hand the navigator the cryptic clue for the next section. On road rallies and road sections of stage rallies, the time distance between controls is sufficient to allow an average speed of 30mph, well within national speed limits. Crews are penalised for entering time controls either earlier or later than their time schedule permits.

World Rally Car – a class of rally car used on some stage rallies. World Rally Cars are vehicles developed by car manufacturers exclusively for use on rounds of the World Rally Championship. Unlike Group N or Group A cars, which start out as ordinary road-going cars and are then modified, World Rally Cars are designed from the outset for competition and not for normal road use. Their parts are thus designed for speed as opposed to longevity or practicality. As World Rally Cars are constantly being developed, older models soon stop being competitive at the highest level and are thus sold to wealthy private or amateur competitors for use for pleasure on smaller rallies around the world. The newest World Rally Cars cost around £300,000 to purchase, however ten year-old versions are typically worth around £90,000.

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IMAGE SOURCES

n.b. unless listed here, all images are property of the author.

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Figure 5.1 – Stoke-on-Trent City Council (2010) *Green Space Access Protection* Stoke on Trent City Council: Stoke-on-Trent p18 (Motorcycle Inhibitor Barrier).

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APPENDIX I – FULL LIST OF ALL DATA SOURCES USED

(a) video recordings – rally

File code	Title	Description	People featured	Date	Length (mins:secs)
ric001	Border Counties Rally 2008	Leading skilled crew pushing on for strong result	Rory/Patrick	5 April 2008 2.30pm	09:00
ric002	Border Counties Rally 2008 - 2	Another leading skilled crew tackle chicanes	Jordan/Graeme	5 April 2008 11.30am	06:27
ric003	Jim Clark National Rally 2008	Stuck behind a slower car	Anthony/Luke	24 May 2008 2.00pm	00:30
ric004	Jim Clark National Rally 2008 - 2	Frontrunning crew in world-specification car	Anthony/Luke	24 May 2008 10.00am	04:46
ric005	RSAC Scottish Rally 2009	Novice crew on fast and challenging stage	Danny/Niall	27 June 2008 11.00am	08:17
ric006	Speyside Stages 2008	Young amateur crew learning on forest stage	Ruaridh/Susie	9 August 2008 3.30pm	06:48
ric007	Granite City Rally 2008	Experienced crew deal with technical fault	Lee/Scott	26 April 2008 11.15am	02:13
ric008	Scottish Rally (Historic) 2008	Young crew in historic car contend with dust	Finlay/David	28 June 2008 3.15pm	09:34
ric009	Pirelli International 2008	Professional crew developing a new car	Ryan/Gary	19 April 2008 9.30am	08:17

ric010	Granite City Rally 2008 - 2	Top Scottish crew on a trouble-free stage	Jordan/Graeme	26 April 2008 2.30pm	07:29
ric011	Snowman Rally 2009	Leading skilled crew pushing on for strong result	Rory/Patrick	14 Feb 2009 3.30pm	09:54
ric012	Scottish Borders Hillrally 2007	Different type of rally featuring SUV-type cars	Matt/Adam	25 Nov 2007 10.45am	08:50
ric013	Colin McRae Forest Stages 2009 - Drummond Hill	Leading skilled amateur crew fight for championship	Lee/Scott	3 Oct 2009 4.45pm	08:10
ric014	Snowman Rally 2009 - 2	Experienced driver and novice co-driver crash	Jimmy/Iain	14 Feb 2009 9.15am	01:11
ric015	Jim Clark Reivers 2009	Tarmac specialists on a tarmac rally (including spin)	Robbie/Emma	24 May 2009 1.15pm	12:08
ric016	Speyside Stages 2009	Crash following co-driver error	Laurie/Tom	8 Aug 2009 3.00pm	04:52
roc001	Waiting for the cars	Spectators waiting for the first rally cars to arrive	LM, spectators	20 Feb 2010 9.30am	02:18
roc002	The first car	The first car passes the spectator point	LM, spectators	20 Feb 2010 9.30am	00:57
roc003	The second car	Second car passes the spectators	LM, spectators	20 Feb 2010 9.30am	00:24
roc004	Walking in	Walking alongside the rally stage	LM, spectators	20 Feb 2010 9.45am	21:15
roc005	At a junction	Spectating at a junction	LM, spectators	20 Feb 2010 9.30am	22:30

roc006	Revising the notes	Co-driver altering route notes	Colin	9 April 2010 5.15pm	03:38
roc007	Signing on	Discussions of environmental issues at signing-on	Competitors	9 April 2010 5.30pm	00:49
roc008	Signing on - part 2	Discussions of environmental issues at signing-on - 2	Competitors	9 April 2010 6.15pm	19:21
ric017	Navigational rallying	A different kind of rallying - navigational rallying	Callum, LM	22 Oct 2010 10.30pm	19:35
ric018	Navigational rallying - part 2	A different kind of rallying - navigational rallying	Callum, LM	22 Oct 2010 10.30pm	00:50
ric019	Navigational rallying - part 3	A different kind of rallying - navigational rallying	Callum, LM	22 Oct 2010 10.45pm	09:45

(b) video recordings – non-rally

File code	Title	Description	People featured	Date	Length (minutes:seconds)
mtb001	Ae - The Omega Man	Downhill on mountain bike in Forest of Ae, Dumfries and Galloway	Unknown cyclist 1	Approx June 2007	01:58
mtb002	Cycopath	Short clip of riders using features in Glentress forest	Unknown cyclist 2	Approx July 2007	02:09

mtb003	Final two downhill on Glentress Red Route	Downhill on mountain bike in Glentress, Dumfries and Galloway	Unknown cyclist 3	Approx July 2007	07:51
mtb004	Mountain biking Scotland	Short clips of forest mountain biking	Unknown cyclist 4	Approx September 2008	00:55
mtb005	Walking a trail	Trail designer Steve shows features on a trail	Steve, LM, volunteers	10 Mar 2010 10.00am	24.43.
mtb006	A fourcross bike	Fourcross rider Dave explains the features on his bike	Dave, LM	15 Mar 2010 2.30pm	12:09
fw001	Day before the rally	A walk through a forest before a rally	LM	19 Feb 2010 2.00pm	07:21
fw002	Day before the rally - part 2	A walk through a forest before a rally	LM	19 Feb 2010 2.15pm	20:07
fw003	The day after	Walking the same route the day after the rally	LM	21 Feb 2010 11.00am	20:00
mtb007	Cycling in the snow	On a bike in the forest in snow - how weather affects mobility	LM	22 Feb 2010 11.45am	12:12
oth001	Target shooting	Field archers training indoors	Bob, John, archers	17 Mar 2010 7.45pm	03:04
oth002	The deer hunter	Brian demonstrates how to use a shooting rifle	Brian	26 Mar 2010 11.45am	04:38
oth003	Dog sleds	Karen and Mike explain the kinds of equipment needed for dog sledding	Karen, Mike	14 Apr 2010 6.00pm	07:23

(c) in-depth interviews carried out

Transcript Number	Name	Approx Age	Date	Length (m:s)	Reason for interviewing	Occupation	Other interests raised in interview
LM001	Geoff	50	26 Apr 2008 5.30pm	1,000 words notes	Motor sport environmental scrutineer	Local authority environmental warden	Long-distance running
LM002	Robert	60	9 May 2008 11.00am	36:37	Carbon neutral rallying	Retired university lecturer	Restoring and driving classic cars, history, theology, philosophy
LM003	Donald	65	9 May 2008 1.45pm	25:09	Retired rally driver	Retired stockbroker	Driving rally cars (retired), organising rally championship
LM004	Alistair	50	12 May 2008 10.30am	20:24	Forestry Commission Manager	Forestry Commission manager	
LM005	Laura	20	15 May 2008 3.30pm	27:44	Orienteer	Student	Orienteering, fell walking, navigational rally navigation
LM006	Duncan	35	1 July 2008 2.30pm	42:53	Forestry Commission ranger	Forestry Commission ranger	Bird watching, rock climbing
LM007	Greig	60	3 Feb 2010 12.00 Noon	26:51	Motor sport film maker	Motor sport television programme producer	Rally driving (retired), rally navigating (retired), former garage owner, engineer
LM008	Brenda	45	17 Feb 2010 9.30am	42:14	Carbon offset charity volunteer	Climate change officer	Environmental issues

LM009	Steve	40	10 Mar 2010 12.30pm	46:36	Mountain bike trail designer	Forestry Commission bespoke path builder	Mountain biking, outdoor craft
LM010	Dave	30	15 Mar 2010 2.00pm	56:57	Fourcross rider	Fourcross event organiser	Motorbiking
LM011	Bob	70	17 Mar 2010 7.00pm	48:27	Field archery	Retired fisher	Fishing, hill walking, cycling
LM011	John	60	17 Mar 2010 7.00pm	48:27	Field archery	Archery instructor	Field archery
LM012	Brian	50	26 Mar 2010 11.00am	27:14	Deer stalking	Official for shooting organisation	Fishing, deer stalking, public access
LM013	Peter	65	14 Apr 2010 3.30pm	1,500 words notes	Forest researcher	Retired forest researcher	Social forest research
LM014	Martin	50	7 Apr 2010 11.00am	72:15	Rally co-driver	Electrical goods store manager	Rally navigation, organising rally championship, rally senior official
LM015	Keith	45	13 Apr 2010 11.00am	50:20	Path designer	Path designer	Conservation volunteer
LM016	Karen	40	14 Apr 2010 5.30pm	77:01	Dog sledding	Press officer	Dog sledding, dog breeding
LM016	Mike	40	14 Apr 2010 5.30pm	77:01	Dog sledding	Oil engineer	Dog sledding, dog breeding, sports cars

LM017	Malcolm	45	20 Apr 2010 10.30am	34:52	Forest star gazing	Star gazing facilitator	Environmental interpreter
LM018	Simon	45	22 Apr 2010 10.00am	41:54	Landscape architect	Forestry Commission landscape architect	
LM019	Tom	55	29 May 2010 10.00am	22:34	Motor sport rule maker	UK motor sport environmental regulator	Motor sport organiser and competitor (retired)

(d) participants involved in participatory projects

Name	Approximate Age	Role
Championship		
Donald	60	Co-Ordinator
Bill	50	Chairman
Martin	50	Secretary
Chris	55	Assistant Co-Ordinator
Jim	55	Treasurer
Stuart	30	Drivers' Representative
Leslie	25	Facilitator
Event		
William	55	Clerk of the Course
Martin	55	Deputy Clerk of the Course
Charlie	45	Assistant Clerk of the Course
Stephen	45	Forestry Commission Manager
Heather	35	Local Authority Representative
Leslie	25	Facilitator

(e) field diary entries

Date	Key themes
26/4/08	Thoughts on writing documents for rallying and possible conflicts with research
5/5/08	Challenges of rising to environmental responsibility in rallying, especially working past 'carbon neutral' thinking
13/5/08	Meeting with rally event committee, planting of oak trees to offset emissions
15/5/08	Thoughts on informal conversation with rally organiser, frustration at seeing environmental programme mainly as PR exercise
5/6/08	Possible conflict between environmental agenda and receiving sponsorship from sports car dealership (which nobody else seems to have noticed)
1/3/09	Visit to historic car rally, thoughts on place value and memories of old cars
5/9/09	Visit to famous rallying location to watch an event with recently retired driver
9/7/09	Response to letter in Sunday Herald about stopping events such as car rallies that produce 'frivolous' emissions
5/11/09	On teaching an undergraduate class about environmental pragmatism
18/2/10	Getting out into the forest in a non-rally context - cycling and walking
25/8/10	Last meeting with rally championship on environmental issues, notes on participants' views of climate protestors and environmentalists

(f) documents and publications consulted for contextual information

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APPENDIX II – CONSENT FORM AND PLAIN LANGUAGE STATEMENT



THE UNIVERSITY OF EDINBURGH
SCHOOL OF GEOSCIENCES

Consent Form for Persons Participating in Research Projects: Motorised recreation and the challenge of ‘genuine’ environmental responsibility

Name of participant:

Name of investigator(s):

I would like to thank you for participating in the research project. During the research I have made video or audio recordings of you. I now need you to give permission for me to use the material I have recorded. The answers you give to the following questions will tell me what uses of these records you are willing to consent to. This is completely up to you and you may withdraw from the research at this point if you wish, even if the recordings have already been archived. The records will only be used in ways you indicate to me. When I work on, publish and archive the records I will always use pseudonyms and – if you request – avoid statements or data extracts that make your identity apparent. Please read the information sheet before you circle your answer to the questions below. If you have any further questions you should feel free to raise them with me.

Audio Recordings

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 1 (a) Audio recordings can be studied by the researcher for use in the research project? | Yes No |
| 1 (b) Transcriptions of audio recordings can be studied by the researcher for use in the research project? | Yes No |
| 2 (a) Audio recordings can be used in scientific publications? | Yes No |
| 2 (b) Transcriptions of audio recordings can be used in scientific publications? | Yes No |
| 3 (a) Other members of the Human Geography Research Group in the School of GeoSciences can study audio recordings? | Yes No |
| 3 (b) Other members of the Human Geography Research Group in the School of GeoSciences can study transcriptions of audio recordings? | Yes No |
| 4 (a) Audio recordings can be played at meetings of other scientists interested in the study of environmental issues and recreation in nature? | Yes No |
| 4 (b) Transcriptions of audio recordings can be shown at meetings of other scientists interested in the study of environmental issues and recreation in nature? | Yes No |
| 5 (a) Audio recordings can be used for teaching purposes? | Yes No |
| 5 (b) Transcriptions of audio recordings can be used for teaching purposes? | Yes No |
| 6 (a) Audio recordings can be used in an exhibition? | Yes No |

- | | |
|-----------------------------------------------------------------------------------|--------|
| 6 (b) Transcriptions of audio recordings can be used in an exhibition? | Yes No |
| 7 (a) Audio recordings can be used on television and radio? | Yes No |
| 7 (b) Transcriptions of audio recordings can be used on television and radio? | Yes No |
| 8 (a) Audio recordings can be used on the researcher's website? | Yes No |
| 8 (b) Transcriptions of audio recordings can be used on the researcher's website? | Yes No |

Video Recordings (where applicable)

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 1 (a) Visual recordings can be studied by the researcher for use in the research project? | Yes No |
| 1 (b) Frames from visual recordings can be studied by the researcher for use in the research project? | Yes No |
| 2 (a) Visual recordings can be used in scientific publications? | Yes No |
| 2 (b) Frames from visual recordings can be used in scientific publications? | Yes No |
| 3 (a) Other members of the Human Geography Research Group in the School of GeoSciences can study visual recordings? | Yes No |
| 3 (b) Other members of the Human Geography Research Group in the School of GeoSciences can study frames from visual recordings? | Yes No |
| 4 (a) Visual recordings can be played at meetings of other scientists interested in the study of environmental issues and recreation in nature? | Yes No |
| 4 (b) Frames from visual recordings can be shown at meetings of other scientists interested in the study of environmental issues and recreation in nature? | Yes No |
| 5 (a) Visual recordings can be used for teaching purposes? | Yes No |
| 5 (b) Frames from visual recordings can be used for teaching purposes? | Yes No |
| 6 (a) Visual recordings can be used in an exhibition? | Yes No |
| 6 (b) Frames from visual recordings can be used in an exhibition? | Yes No |
| 7 (a) Visual recordings can be used on television and radio? | Yes No |
| 7 (b) Frames from visual recordings can be used on television and radio? | Yes No |
| 8 (a) Visual recordings can be used on the researcher's website? | Yes No |
| 8 (b) Frames from visual recordings can be used on the researcher's website? | Yes No |

Please feel free to write any additional requests regarding data usage in the space below:

Participant signature:

Date:

Witness signature (if applicable):

Date:

Investigator signature:

Date:

If you have any further queries or require any further information, please contact Leslie Mabon at: Benbecula Suite (Room 1.09), University of Edinburgh, School of GeoSciences (Geography), Drummond Street, EDINBURGH EH8 9XP. E: L.J.Mabon@sms.ed.ac.uk, T: 07864 006 762.

Alternatively you may also contact Leslie's principal supervisor Dr Emily Brady at: University of Edinburgh, School of GeoSciences (Geography), Drummond Street, EDINBURGH EH8 9XP. E: emily.brady@ed.ac.uk, T: 0131 650 9137.



**University of Edinburgh
School of GeoSciences**

Motorised recreation and the challenge of ‘genuine’ environmental responsibility - information sheet

What is this study about?

This research aims to look at the ways in which the Scottish motor sport community thinks about the natural environments it works with, and about possible ways in which awareness of environmental issues may be increased. Whilst the study does not necessarily seek to justify or defend motor racing, the Scottish motor sport framework is an interesting test case for beginning to think about how different groups can be made aware of issues relating to the environment. The topic also hopes to uncover a little more about how universities can work with different groups to develop understanding of what environmentally responsible practice means in different contexts.

The research is being carried out by Leslie Mabon, a postgraduate research student in the School of GeoSciences at the University of Edinburgh.

How does Leslie want you to help him?

There are three parts to the research that Leslie would like help with. Leslie will explain to you which of these parts he is interested in doing with you when he first makes contact, however please bear in mind at all times that you should only participate to the extent you feel comfortable with:

1. Leslie may work with you on a small-scale project to do with motor sport and the natural environment. This typically will last no longer than six weeks with no more than five hours' work, and you are under no obligation to take any action should you not wish to. Leslie will record your group's discussions on environmental issues, and where possible work with you on implementing some small-scale activity. All discussions and work will take place at a time and place convenient to you;
2. Leslie may interview you for no more than one hour (unless you wish to speak for longer!). The interview will take the form of a semi-structured 'conversation' style interview, in which Leslie will discuss your views on the natural environment and on humans working with the environment. The type of questions he will be asking you will be to do with how you think about the natural environment and about how you interact with this environment, what your own views on environmental issues are and what you think the academic community could be doing with respect to environmental issues within a group such as the Scottish motor sport framework. Leslie may also ask you to comment on some pictures or descriptions of natural landscapes. The interview will take place at a time and in a location convenient to you.
3. Leslie may be interested in filming you doing your usual activity on a motor sport or other recreation event. This will be done in an unobtrusive manner, where the camera and filming will not obstruct your normal course of activity. Typically, no

more than half an hour's worth of footage will be taken.

These methods of evaluating how people think about environmental issues, and how they act in a natural environment, have been used successfully in the USA and in Europe. By looking at these different forms of interaction with the environment and environmental issues, the aim is to get a better understanding of what different users see as being valuable in their natural surroundings.

Are there any risks involved?

This is not intended to be 'controversial' research, rather it is about how people experience their natural surroundings and how they think about environmental issues. However, considerable attention has still been given to the ethical implications of this research. You will not be identified by your own name or job title in any analysis or publication. Rather, you will be assigned a pseudonym (which you may select yourself if you wish) that will be used if you are referred to at any point after the fieldwork.

Nevertheless, there is a potential risk that the nature of what you say or do, or an idea you put forward, could make your identity apparent, and persons known or unknown to you may form negative opinions of you based on the observations. If you feel this could be a problem, there are several safeguards:

1. Your participation in the research is voluntary, and you have the right to terminate the process or withdraw consent at any time before, during or after the research. At any time, you can ask the researcher to stop recording. If you are to be left alone with the recording equipment, for instance during an observation, Leslie will show you how to start and stop the recording yourself beforehand;
2. You may request that no direct quotations be used from your transcript or that no statements are made about you or sections of video shown that make your identity apparent;
3. To this end, you will be given an opportunity to review the transcripts and edit, remove or add your comments as you see fit. If you have been filmed, you will be given a recording of the footage Leslie wishes to use in a format suitable for you and Leslie will ask you to tell him if you are happy with it. If not, you may request that certain sections be deleted.

How will the information about you be stored?

If you give permission, the fieldwork will be digitally recorded, so that it can be analysed afterwards by the researcher. Only Leslie will hear or see the recording in the first instance. The transcripts or videos will then be sent to you for checking and unless a longer timeframe is agreed beforehand, you will be given 28 days in which to make any alterations or suggestions after which time it will be assumed that you are satisfied with the material Leslie wishes to use. Once this has been done, the raw digital files will be archived in an encrypted folder accessible only to the researcher, and transcripts will be stored in paper format for two years and then shredded.

If you give permission, Leslie may wish to use some audio or video material

containing you for presentation purposes, either to teach university students or to present to academic peers. You will be given the opportunity to define precisely with whom the material can be shared.

Any personal details, such as name, addresses, telephone numbers, will be securely stored and will be accessible to the researcher only. If you give permission, Leslie may retain your details so that he can contact you with any follow-up questions he may have. This is entirely at your own discretion.

Are there any benefits in taking part?

Participation in the study is entirely voluntary. Although no incentives can be offered, it is hoped that participation will give you a useful opportunity to reflect on your own practices, thinking about what exactly it is you enjoy doing in the natural environment and how you might continue this into the future whilst reducing any negative impacts on the environment.

Furthermore, the research aims to contribute something to understandings of how different people think about the environment, and also contribute something practical to motorsport's understandings of environmental responsibility. In the longer term, it is also hoped that research like this can help to give different key stakeholders a voice and work towards outcomes beneficial to both humans and the natural environment. If you would like to know more about the analysis of your recordings, or about the more general findings from the research, then please get in touch with Leslie Mabon at the address below.

Who can you contact to find out more?

This research is being carried out by Leslie Mabon at the University of Edinburgh's School of GeoSciences. Leslie can be contacted at any time in several ways:

By email: L.J.Mabon@sms.ed.ac.uk;

By telephone: 07864 006 762;

By post: c/o Benbecula Suite (Room 1.09),
University of Edinburgh,
School of GeoSciences (Geography),
Drummond Street,
EDINBURGH
EH8 9XP.

Alternatively, if you have any concerns you may also contact Leslie's principal supervisor, Dr Emily Brady:

By email: emily.brady@ed.ac.uk

By telephone: 0131 650 9137;

By post: University of Edinburgh,
School of GeoSciences (Geography),
Drummond Street,
EDINBURGH
EH8 9XP.

If you have any additional ethical concerns then please contact: Chair of Ethics Committee, University of Edinburgh, School of GeoSciences (Geography), Drummond Street, EDINBURGH EH8 9XP.

APPENDIX III – SAMPLE INTERVIEW SCHEDULE

I. Identity

- (a) Tell me about your job/hobby
- (b) Tell me about the places you do it in
- (c) Tell me about the people you do it with

II. Narrative

- (a) What's the story of your involvement with rallying/occupation/other sport?
- (b) Tell me one of your favourite memories relating to
 - 1. place
 - 2. person
- (c) What has changed over time in your relationship with the environment?

III. Machinery and tools

- (a) Explain the kind of equipment you use (car, bike, camera etc.);
- (b) Talk me through how you operate it
- (c) Say a little more about your car/bike/etc
 - 1. How you came to buy it
 - 2. What you like about it
 - 3. Your most successful outing with it
- (d) What else have you used in the past, and how has that been different?

IV. Responsibility

- (a) How do you see the relationship (if at all!) between motor sport and environmental issues?
- (b) Environmental conflicts
 - 1. Experienced first-hand?
 - 2. Know of through others?
- (c) Value of academic research – what do you think universities and academics can be doing practically in the field of environmental issues
 - 1. In the context of motor sport
 - 2. More broadly



205 Ecosse Challenge and the Environment – Working Paper

Aim:

To develop a workable, tangible and marketable environmental programme for the Brick and Steel 205 Ecosse Challenge for 2009 and beyond.

Decisions to be made:

Should we offer competitors the chance to 'offset' their carbon emissions, and if so, how should this be approached?

What long-term environmental goals can the Challenge realistically work towards?

Context:

Whether we like it or not we will have to face up to environmental issues sooner or later, whether it's in the form of pressure from other users/Forestry Commission/government or via tighter regulations via the MSA. 'Being seen to be doing something' is no longer sufficient – we actually need to think critically about what we are doing and what we can do realistically.

Where we stand just now:

-205s are actually – I think – a pretty good model of what more responsible rallying could look like! Old cars and parts are re-used, low power, no grey drums of fuel, minimal impact on forest roads, low noise and yet still a lot of fun to compete in!

-The SRC have signed up to the Energy Efficient Motorsport scheme, but it is largely focussed on alternative fuelling and doing more or less the same thing with a different propellant...

-There is a gap in motorsport thinking about the environment that I think we can fill and shout about. Namely, actually thinking about what we are doing and taking small but significant steps to reduce the negative impacts of our sport whilst still retaining the elements that our competitors value.

What can we do then?

-Working through everything that goes on in the process of a rally and looking for openings where small things can be changed here and there. I should say at this point I am prepared to put the hours in to make these things happen – I don't want any of this to be dumped on anyone! For instance:

-Tyres. What happens to old tyres when our crews are finished with them? Is there any way we can dispose of them safely, or somewhere we can give them too for recycling? Is there perhaps a gap in the market for merchandise made out of old rally car parts!?!

-Distances travelled. I did some maths with a guy from the Forestry Commission last year on where the 'carbon footprint' of a rally comes from, and the vast majority of it comes from service barges, management cars and travel to/from the event. Reducing the mileage vehicles travel between stages is beyond our control, but in the future might we look towards events with lower road miles (the Merrick and the Autumn being two excellent examples)?

-Also, could competitors be encouraged to sit out the rounds furthest from home if they are planning to sit some out anyway? For instance, if someone from Inverness has budgeted for six rounds, can we encourage them to

avoid the long trip to somewhere in the south? E.g. small rebate on registration fee? (We can also tie this one into current economic conditions as a further incentive to keep costs down!)

-Reducing 'official' miles where possible – car sharing, less manpower on smaller events;

-Doing as much as possible 'on event' – reducing the miles competitors have to travel between events for whatever reason by coordinating logistics as much as possible.

Planting trees: the tangible, visible bit

With Forestry Commission or Woodland Trust, we 'buy' the requisite amount of trees to offset the carbon emissions for each crew who have signed up to the scheme. These trees should be planted somewhere in Scotland.



At a very conservative estimate, over the season the average 205 team puts out the following amount of CO2:

Car

Assume 2,000 miles at 5mpg 4.21 tonnes

Service Van

Assume 3,000 miles at 20mpg 1.58 tonnes

Management Car

Assume 5,000 miles at 20mpg 2.63 tonnes

Total 8.42 tonnes

Around 5 trees are needed to offset 1 tonne of CO2, so for one '205' to offset its emissions for the entire season – again being conservative – 45 trees would be needed. The cost of planting these trees seems to vary greatly depending on where you look, but I suggest that if we go ahead with this scheme we approach the Forestry Commission direct rather than going through any carbon offsetting company who may be out to skim profits. This will keep the costs down for those signing up to the scheme.

At each event, competitors can choose to buy back some of their emissions to offset the impact of the day's rallying. In return they will get some kind of graphic they can put on the car (maybe we can get a rally driver who is also into graphic design to help us with this) and we at the Challenge will do our bit to promote those who are offsetting emissions through a section on the website.

For the longer term



-Think about the type of events we are going to and how far our competitors are having to travel;

-Keep abreast of new technological developments that 205s may be able to benefit from;

-When the time comes to think of a replacement for the 205, take into account potential to

run alternative fuel, possibility of re-using parts from older cars and for environmentally-friendly disposal of broken cars (i.e. do the manufacturers offer any schemes for taking back old parts and disposing of them safely?)

-If anything we propose is to be successful, it must be demonstrated to competitors that it is in their interests to reduce the impact on the environment. Whether this is couched in terms of pre-empting legislation (look at the effect the NIMBY lobby are having on racing/rallying at Croft) or saving cash, it has to be attractive to crews...

APPENDIX V – SAMPLE EXTRACTS FROM FIELD DIARY

5 September 2009

Everyone seems to have a story to tell about Glentool. Ask any driver what their top five favourite stages are, and at least one of them will involve the Glentool complex. Driving through a section of forest earlier in the day to get to our spectating point, I can begin to understand why. We are travelling in Scott's road car, but he is making progress along the forest roads at a fairly rapid rate. "It's as close to tarmac as you'll get on gravel," someone told me the day before. What this means, as I understand now, is that the tracks built to carry heavy forest machinery through the woods are undulating and sinuous. This is in stark contrast to the flat, geometric forest roads I've seen elsewhere in Scotland, and adds a dimension of the unknown thanks to the sharp, sudden inclines in the road that only sky and tree-tops are visible over. "Just because you can't see doesn't mean you have to back off," comments Scott later in the day as he hears a car lowering its speed just before it appears in our field of vision. For now, his little car is smashing through puddles, dodging rocks and ploughing a lonely furrow over the dark grey gravel track.

It's lashing rain when we arrive at Arroch Hill, the first stage of the day. Muddy cars coast down the hill at one-minute intervals, coming to a stop somewhere out of sight to our right to get their time cards signed by the marshals. To get to where we want to be – where the action is – we need to walk up the stage against the flow of traffic. This necessitates jumping off into the undergrowth at irregular intervals when we hear a car coming. At this point, the cars have crossed the finish line and are slowing down, but as we get further upstream things could get a little more interesting. I've been to dozens of rallies before, but strangely enough I could count on one hand the number of times I've actually been out in the forests watching cars in action. I have to admit I really don't like walking through the stage, there are just too many unknowns and too many things that could go wrong.

My point is proven just a few moments later, as a hissing and popping Subaru flies over the finish at a thirty degree angle to the road, taking out a big yellow sign with its tail before the driver flicks it back to the direction it's supposed to be going and applies the brakes. Whoops and cheers rise from the damp spectators. "He was pushing it there," declares one. "A man on a mission today," calls another across the road from where we are standing. We're moving through some tall, dark trees at the moment, the thick canopy barely sheltering us from the rain. Muddy water bubbles up through the moss underfoot, licking at the soles of my boots. My shoes are thankfully waterproof, but I don't fancy standing still for too long lest the water-resistant layer is penetrated...

18 February 2010

Fieldwork was never supposed to be this hard. That's why I chose human geography, after all. You got to study cafes and gentrification and parks and architecture rather

than going off up glaciers for weeks on end or traipsing through woods to strip bits of bark off trees. There was nothing in the undergraduate options handbook that said a human geographer was ever going to be at any risk of having to cycle up a one in three gradient hill on a bike with dodgy gears.

I pressed on uphill as the gears under me clicked away, indicating that they were aware that I wished to change down a gear but that they had no intention of doing so any time soon. Zigzagging from right to left on the single-track road so as to moderate the gradient, I quickly forgot about the bitter cold and instead concentrated on the pain coming from both of my knees. I like to think I'm a fairly fit person, but years of pounding the concrete of Edinburgh on jogging routes had taken its toll on my joints, and now I was suffering. I stood up out of the narrow seat and began pumping.

Eventually I made it over the crest of the brae and the incline became more moderate. My knees ached, but I refused to stop and tried to make as speedy progress as possible. On a relatively flat section of the road I began experimenting with gear-changing techniques in the hope of having more gear choices at my disposal for the next incline I would be tackling. After forcing the levers repeatedly and stamping on the cogs with my trainer, I came to the conclusion that pedalling briefly backward was the most efficient way to select another gear given the recalcitrant mechanisms.

Twenty minutes or so later I arrived at my field site, a forest right in the middle of the Black Isle. Although the area had seen recent heavy snowfall and the temperature remained low, a combination of sunlight and grit meant the public roads were mercifully free of ice. Not so the forest tracks. I turned off the tarred road into the dark lane of trees that marked the entrance to the forest and immediately felt the traction go from under me. The skinny bicycle wheels wobbled around as they searched for grip among the loose stones and patches of ice that covered the dirt track. I tentatively edged forwards, constantly sticking to a speed at which I could safely throw my feet out or jump overboard should my bike lose control. Whenever the trees parted and the sun shone through, the ice disappeared – but as soon as the treeline returned on my left, so the ice came back....

25 August 2010

The last meeting took place at the same time climate protestors had set up camp at the Royal Bank of Scotland headquarters in Edinburgh, and their actions occupied a significant portion of our discussion. What was particularly interesting to me was the way the protestors were perceived – namely, as being 'students', 'wasting the taxpayer's money' with the damage caused and 'tossers'. As one group member put it, "when they've finished university, grown up and got a real job they'll look back and think how stupid they've been". There was also some discussion about the damage to property alleged to have been caused by the protestors, in particular who was going to foot the bill to repair the damage and who would be liable or responsible should a car accident arise from oil poured on the road. Again, the perception of climate protestors as students came to the fore, someone declaring that

“it definitely won’t be the protestors that pay, because none of them pay any bloody tax anyway!”

The group generally seemed to favour heavy-handed responses to the protestors, however everyone acknowledged the right to peaceful protest. What seemed to upset the group was the idea that the police had allowed the protest to go ahead and had even carried water and so on to aid the establishment of a camp, and yet the protesting group ‘repaid’ the police by causing damage to the bank headquarters. Things seen as appropriate responses included storming the camp, holding the protestors liable for criminal damage and – rather less seriously one hopes – setting fire to the objects protestors had superglued themselves to.

Perhaps unsurprisingly, this discussion informed the section of the meeting where carbon offsetting and climate change was discussed. The possibility was raised of forming a partnership with an association with clearer links to Scotland and Scottish woodlands so as to give a clearer ‘audit trail’ from environmental damage from rallying to ‘repair work’ in the environment. The logic behind this was met with universal agreement, but familiar arguments about scepticism towards climate change resurfaced from some members. For instance, a member questioned “how can it be global warming when someone told me the other day we’re getting snow in September? How can there be more snow if there’s global warming?” In response to this, other members highlighted the difference between climate and weather, one in particular pointing out “that’s why they call it climate change now instead of global warming”.

APPENDIX VI – SAMPLE VIDEO TRANSCRIPT

Hunting Rifles

Deer stalker Brian explains the intricacies of rifles suitable for deer stalking as well as explaining the additional equipment necessary for deer stalking. The material used to construct the gun, the additional technologies added to the gun and the potential effects of weather are discussed.

Friday, 26 March 2010, 11.00am, Perthshire.

1 ((B in gun cupboard selecting guns))
2
3 B: °Take the one, what one would be best°. (8.0) °Here we
4 go° (1.0) [so these are the sort of
5
6 [((B emerges from cupboard carrying rifle))
7
8 LM: Okay
9
10 B: The firearms that we use, the >shotgun's obviously for
11 shotgun shooting< but rifles as well erm °do you want to
12 go outside and do this we'll show it to you there°
13 ((walks away from cupboard towards main door))
14
15 LM: Okay
16
17 [((B pauses in corridor before turning back to cupboard))
18
19 B: [Erm (1.5) no, that's not, [I'll show you that one and
20 al:so
21
22 [((B rests rifle against wall outside cupboard and enters
23 cupboard to collect second gun))
24
25 [...]
26
27 [((B holding rifle in both hands pointing at window))
28
29 B: [Do you want me to just explain what this is
30
31 LM: Yes, aye
32
33 B: Okay so this is a er modern rather expensive er German
34 or Austrian deerstalking rifle, [obviously in camouflage
35 >doesn't have the bolt in, there's no ammunition in it,
36 it's perfectly safe<
37
38 [((B gestures at butt of rifle and points out trigger and
39 scope with right hand))
40
41 B: [This=is just to give you an indication of the kind of
42 kit that's used quite commonly.
43

44 [((B returns right hand to butt of rifle))
45
46 B: Erm so this rifle's >probably worth about two
47 thousand< and [this scope on it
48
49 [((B moves right hand onto scope))
50
51 B: Is also worth about two thousand, very fancy bit of
52 kit. Erm [so <this is>
53
54 [((B returns right hand to butt and points rifle at
55 floor))
56
57 B: (.) °don't know which caliber it is° erm ((looks at
58 sides of rifle to find caliber marking)) (8.5) °it's a
59 thir-° it's oh its thirty o six caliber ((picks rifle up
60 in both hands and points out window)) which is more of an
61 American caliber than a European caliber, it's=quite
62 popular a:nd this caliber of rifle would be more than
63 capable of taking red deer, roe deer, fallow deer, any of
64 the deer in, in Scotland. Erm (.) it would have=an
65 effective range of well over a mile or two but obviously
66 as I said >everyone that's using it will be making sure
67 that there's a safe backstop< erm (.) [you probably carry
68 four or five rounds of ammunition (.) in it
69
70 [((B moves right hand up to near trigger on rifle))
71
72 LM: [°Right°
73
74 B: [So it's bolt action it's not semi-automatic, it's
75 just use- [work the bolt every time to (.) feed another
76 round into the, into the magazine
77
78 [((B makes up and down gesture with right hand before
79 returning hand to butt of rifle))
80
81 B: But state of the art type stuff the only (.) thing
82 which this one doesn't have which most rifles do have is
83 a sound moderator
84
85 LM: Right, right
86
87 B: [Which I said befo:re significantly reduces (.) the
88 muzzle noise
89
90 [((B places rifle on floor and picks up second gun and
91 sound moderator from chair, holding gun in left hand and
92 moderator in right hand))
93
94 LM: U-huh, right
95
96 B: You still get the crack of the high velocity bullet
97 and a sound moderator is bes- basically a tube like this

98 that (.) [goes over the barrel and then screws on like
99 that
100
101 [((B screws moderator onto end of second rifle))
102
103 B: And so it=it reduces the the noise quite considerably
104 ((holds gun with both hands and points gun at ceiling))
105 increases the weight but >the majority of rifles in use
106 in Scotland these days will be using sound moderators<.
107 And it's a (.) it improves your deer management
108 opportunities because you might be able to shoot more
109 than one deer at any one time because they aren't
110 disturbed so much by the noise erm but it also [reduces
111 disturbance to the general public
112
113 [((B holds gun vertically with left hand and unscrews
114 sound moderator with right hand)
115
116 B: And protects the (.) the shooter's ears as well,
117 because they are being exposed to such a lot of noise. So
118 modern, modern rifle ((holds rifle in left hand and
119 moderator in right hand)) camouflage, synthetic stock,
120 more traditional rifle with a wooden stock ((touches butt
121 of rifle with right hand)) (.) but they all basically do
122 the same thing ((lowers rifle to vertical position))
123
124 LM: Right, so is there any sort of difference between
125 wooden stock and synthetic?
126
127 [((B turns round and places sound moderator on desk
128 before turning back round holding rifle with both hands))
129
130 B: [Erm (.) yeah there is a difference in that er (.) a
131 synthetic-stocked rifle erm <is less prone to distortion>
132
133 LM: Right, [right m-hm
134
135 B: [Erm in in bad weather. So if you're out on a really
136 wet day you could find that this wood although it's
137 treated with oil absorbs a bit of moisture, swells up,
138 and it can <affect erm the the> ((gestures to end of
139 barrel with right hand and returns right hand to rifle
140 butt)) positioning of a bullet from the barrel just by a
141 mere flexing in the barrel itself. So they are (.) pretty
142 robust bits of kit ((slides left hand down and up
143 barrel)) but they have to be treated quite, quite
144 sensitively because they're, you know precision,
145 precision shooting, you're loo:king an ensuring that
146 you're you know within an inch or two at most of your
147 point of aim (.) at a hundred even at=out to two hundred
148 yards
149
150 LM: Great so the, are the, are more expensive ones are
151 they all synthetic stock now or
152

153 B: No=not at all >some of the more expensive ones are
154 made from really nice wood< but you'll pick up a standard
155 rifle like this=at=maybe eight hundred a thousand pounds
156 without a scope. So you're tal:king, your average deer
157 stalker will have a re:asonable investment on his back
158 when he's out stalking, he'll have (.) a good rifle
159 ((touches barrel of gun with left hand)) he'll have a
160 good scope on it ((gestures to scope with left hand))
161 which could be worth as much as the rifle >so you could
162 be talking fifteen hundred two thousand pounds<, he'll
163 also have a pair of binoculars >probably a thousand
164 pounds' worth< ((points out window with left hand)). So
165 it's a, it's a serious investment.
166

APPENDIX VII – SAMPLE IN-DEPTH INTERVIEW TRANSCRIPT

Tuesday, 20 April 2010, 10.30am, Edinburgh.

LM: So what, er, what exactly is Dark Sky Scotland?

MALCOLM: Erm it's a, a programme of public and educational astronomy events, erm, and it's been running since 2006, erm and the idea is, is to run astronomy events in communities and places that wouldn't otherwise have the chance to experience them, mainly because they don't have a, a public observatory on their doorstep, or a science centre or the expertise that is needed run that sort of event. Erm, and we run them in the first year, a lot of them were in very rural and remote locations, and Forestry Commission as a partner in that and there is this tie in that the more rural and remote you get the darker the sky, and that drew a lot of sort of attention to the programme and funding, media coverage, erm but at the same time that, as the programme has evolved it's also about urban locations, and that really wherever you live there is something you can see in the sky. There's always the darkest place in your community or your neighbourhood, and so we do things in urban and rural areas, but erm Forestry Commission was involved from the very outset in sort recognising there was this untapped resource, and Scotland has some of the largest areas of dark sky in western Europe, you see these sort of, erm, satellite images of light pollution, Scotland has very large areas of dark sky in the north and south of Scotland. Erm, and it's partly, so it's about events but it's also about us doing a lot of training with other teachers, outdoor educators to show them how they can do their own thing, their own groups, their own flying groups or whatever they call it, so that they can incorporate the sky in, into their work, erm and included in that most recently is tourism businesses too, because the Dark Sky Park has been set up in Galloway Forest as something the tourism businesses can make the most of. So we recently ran a workshop for tourism businesses down there, giving them a sort of starter pack for people who want to make the most of the, the local night sky.

LM: So Galloway, I'm quite interested in what it is that makes Galloway such a, such a good place for a Dark Sky Park. What is it about Galloway, if, if most of Scotland has areas of dark sky, what in particular makes Galloway so exemplary?

MALCOLM: Okay, well, the reason for dark skies is quite simple anywhere really, it's erm, a, a lack of artificial lighting and there are, there are at least two types of artificial lighting effects that you need to avoid. One is being away from any direct light, you know, so that's a security light or street light, and even if you just block, shield that with your hand, use your hand to shield that direct glare, you can improve what you can see quite significantly. So that's one local thing but then there's also the sort of ambient glow of lots of local streetlights, it's not direct glare but the light goes up into the atmosphere and gets scattered and you, and you create, it creates a sort of orange glow and that's er an effect that er sort of like a light pollution shadow that cities cast in their sort of regions, and you want to be away from any towns or cities to, to see the best dark skies. Now what causes good, good dark skies then, is basically anywhere with a low population basically, that's really quite a sim- simple

mapping correlation between level population densities and light pollution levels, and Galloway Forest Park is I think the, the largest forest in single ownership in, in the UK, and because of that land usage, and that land ownership, this combination of factors means it's in a position to control, reduce the light pollution to the very smallest level. And, erm, you know, there, there probably are other bits of northern Scotland that are rivalling it for having dark skies, but it's this particular sort of land usage, land ownership means that they were able to go for Dark Sky Park status in that area

LM: I had a look actually, erm, you were mentioning the lighting, the different types of things. I had a look at the proposal that was submitted, and er I was quite amazed at the sort of depth of the investigation that had gone into it, about. It seemed to be every single light in the area was mapped

MALCOLM: That's right yeah

LM: To sort of gauge how much, how much light pollution there was

MALCOLM: I mean the light pollution, I mean the whole Dark Sky Scheme has its origins in America, where they have areas where almost, you know, where no-one lives and therefore, therefore, you know, al- no, almost no lighting, so it was set up with those sort of places in mind. Erm in the UK it's very hard to find that sort of area, so they actually have different tiers within the Dark Sky Park family if you like of being, I forget the actual terminology, but I think it's Dark Sky Reserve is the darkest where you have no lighting at all, Dark Sky Park is places that have small numbers but it's all erm, er using best practice in terms of technology and those policies to make sure it doesn't get any worse, these sort of things. So in, anywhere in the UK is not going to be quite the same as the darkest Dark Sky Reserves, but to, to anyone but the most expert astronomer you wouldn't, you wouldn't notice the difference on a clear night

LM: Right, so you say there best practices using technology to preserve the darkness. What does that kind of, what does that mean?

MALCOLM: Well I'm not a complete expert on that myself, but it's, in principle it's very simple that you don't want light going upwards or out to the sides, certainly. You want the light pointing where it's needed, and anything that's going up in the sky is wasted light, you know, just even from an energy conservation point of view it's not, not needed. And it is just having the right shape, erm hood or, or shade on the light fitting so that the light is not being kind of spread upwards or outwards

LM: Right, great, I see, so what's, er, what's your role within the Royal Observatory?

MALCOLM: Well I, I'm the Visitor Centre Manager, we have the visitor centre that, it's not open every day and all year like, say, a typical museum but open for special events and pro- group bookings, and over the last six or so years we've got more involved in running programmes and events across the country with lots of different

partner organizations. As I kind of said earlier offer something similar to what we're able to offer here to communities throughout Scotland and doing that through sort of working with a lot of partner organizations, and a lot of training work to show other people how they do stuff locally themselves

LM: Right, so I take it your er, your background is in astronomy, or?

MALCOLM: No, my, no, my background is in, actually in, do you know environmental interpretation?

LM: Interpretation, no

MALCOLM: You might have come across it in forestry type settings where they have like visitor centres and information boards and guided walks programmes, all those activities and things that help people understand the place that they're visiting. The family name for that is interpretation and that again actually comes from North America and their national parks they have, they're very big on using that whole term and that whole approach, planning and offering interpretative facilities for visitors to national parks. So my origins are, are working in that, and then I sort of professionally got trained in museums, because museums sort of do interpretative type work, erm and then I came to the observatory as a, kind of just a job opportunity that looked interesting to me, erm but I don't have a, a science or astronomy background.

LM: That's very interesting, the environmental interpretations stuff is very interesting, that correlates quite closely to my, my research, so that's fascinating. This is erm sort of signs, panels

MALCOLM: Yes, yeah

LM: Anything one might find or one might be given to help one interpret the

MALCOLM: Yeah, where you are, sense of place, understanding of significance of the place, why it's protected, why it's interesting, those sorts of things yeah

LM: Is there, is there much scope for drawing on that in your current role?

MALCOLM: A lot. I mean I don't tend to use the language that people working in interpretation use because people here have a slightly different, er, way of doing things. But basically in a way what we're doing is interpreting the night sky, and everything that we do is, is little ways that we've cooked up of doing that (laughs). Erm, but yes it's er environmental interpretation, is easily a very sort of straightforward way of describing what it's about

LM: Fantastic, that's a really, really interesting, I hadn't quite thought of that angle, so

MALCOLM: I mean I think, I think what's worth reiterating is we call it Dark Sky Scotland, and we could have called it something else like Astronomy Scotland, or

Stargazing Scotland, or Cosmos Scotland, but calling it Dark Sky really has been a major factor in the success we've had because it's opened up, I think the whole thing, it opens up the whole idea of, you know, the content is, of what we're about, is stars, the night sky and all that stuff and astronomy. But calling it Dark Sky opens it up to organizations like the Forestry Commission, outdoor organisations you see, see the direct connection with them as land managers and the sky as part of the wider environment. It has a sort of appeal and mystique, I think, for lots of different audiences who might not be drawn to astronomy seeing it as a, maybe as a sort of difficult science or something. But Dark Skies, it hints at something that's on your doorstep, doorstep, it's in your environment, it just seems to work at lots of different, and the media interest is very big, you know, for a lot of the same reasons, so it's just a way of, as a concept, around which we've been able hang things and has really sort of helped the programme

LM: I think it definitely, I mean that's the, that's really the reason that I found about it as well, if the guy at the Forestry Commission said there's people doing astronomy, well yeah that's interesting but not so relevant, but then he says well dark skies, well okay there's something about dark sky, there's something that's valued about maybe the aesthetics or the value of it, that sounds interesting, how does one preserve that is, it definitely seems a very er, a very good move to make

MALCOLM: Yeah, it was er, t was inspired, I can't really remember the day it happened, I think I can remember the, I can actually remember the day, I can't remember the though process, why we just suddenly felt like it had a ring to it, but anyway, there we are.

LM: So the parks down in Galloway, obviously you work with the Forestry Commission, what kind of support do they provide you with?

MALCOLM: The, erm, what we look for in general terms is er for local events is an organisation that can provide a venue, I mean they may not be able to be able provide this directly themselves but they know how to find one, you know source it, okay, a venue, they can involve local community groups or schools if that's the sort of approach they require, and they can do local marketing to make sure, you know, people come to the event. So they're kind of what I call the host, and we come along to do the, to do the astronomy side. In terms of the venue, erm a, probably worth, what's worth highlighting is we're not looking for people, we're rarely looking to take people to the darkest place in that area. That's, the planning of the event is much more about erm having, putting in place all the right customer care and home comforts for family audiences that are going to be visiting, so we're always looking for locations that have a building that provides a warm space in which we can do introductory or backup cloudy weather activities erm but which there's a short walk, maybe less than a hundred yards, where you can get a way from the lights of that building and, and still see something of the night sky. So yeah it's, it's rarely if ever about going to the darkest place, part of the site, darkest location in that area, it's more about the facilities of running a comfortable event.

LM: What kind of, what kind of uptake have you had from the, from the public?

MALCOLM: Erm it's been very good, I mean I think it er, the most successful events we've had, I don't know whether this is anything to do with Dark Skies or just the nature of, of running events in rural areas, but when we, when we set up events, we've got three options for the types of organisation we can ask to lead it. Erm we've got the visitor attractions, who might, you know, they've got a lot of facilities, and so we could go to a historic house or a Historic Scotland property or somewhere like that that's can, or it can be the base for an event, or we can go to a school so it might be a primary school or a secondary school that is particularly keen on getting their kids involved and that's another way to a community to, to run an event, or we can erm find a community organisation that would like to host an event. And we've done all those three routes, and the best events are where you end up with all of those three things coming together so you've got the school involved, it's an event that is publicised and open to visitors and tourists, but it's also got a community feel to it. And the best way to get that mix is to start with the community groups, they are the ones that can create that type of event. Schools and visitor attractions, either they have a different inclination or they're not as plugged into the community. The best community events, the best Dark Sky events have been led by a community group, the best, the most obvious examples of that are the community woodlands associations

LM: Yes, I know them

MALCOLM: Yep, okay, so we've run probably events at half a dozen, with half a dozen community woodland groups, they stand out as a very obviously strong set of events where they've been able to get a very wide range of people from their community involved and I'm not sure if this is anything to do with Dark Skies, a little bit maybe, I think it's just that those groups are well plugged in and they're good community organizations so they make things happen. Where it does fit with Dark Skies, I think is that one of the strengths of Dark Skies is it appeals to people of different ages, and so as an event for a community woodland group it's, it's an attractive way of getting the whole community involved, doesn't, it doesn't look like it's just for children or just for adults or anything like that, or just for arty people or just for sciencey people it's, it's got a very broad appeal in different, ways, and I think that's why it's working for them as well so

LM: Right. What er kind of reasons, motivations, do people have for getting involved, for communities coming along? Is it an interest in seeing what's in the sky or is there, is it more just to be with people, or is it a mixture of both?

MALCOLM: Erm, it's a mixture of all those things, it's like er some of it is community woodland group's got another event on, let's go to it and go to it whatever it was, sort of thing. A lot of kids are very sort of switched on to space and astronomy and so parents are keen to erm support that, foster that, and maybe they don't get too many opportunities for, well, I know a lot of those communities in rural areas are very active and there's a lot going on in them, but they, you know, they won't have astronomers coming along very often so they seize that opportunity. And then at the same time a lot of adults, you find this all the time at events, you know

we've had this in the feedback from our team members about the events, and one member last year highlighted, erm, was the, the, the appreciation of adults at the events for us being there, that it, you know a lot of people have a, harbour a, sort of an interest in the night sky that's un, untapped and er and they'll come along to the event, maybe they'll bring their kids because they know the kids are going to like it, but they've got their own questions and their own curiosity that's being met by the event. So I think there's a whole, a whole mesh of things, but I think the, the appeal to the adults is very important, because that's, I think that's why you get, you know, it's the same curiosity that you've got for coming to do this interview, is we're striking that chord with lots of adults. Lots of people involved in the outdoors, is very strong, but even just, you know, reasonably informed, intelligent adults are interested and curious in the night sky and they will come along for that reason, so

LM: So on a typical kind of evening, on a typical Dark Sky event, what would you do with people?

MALCOLM: Okay, well the, the sort of, we've got a, a version of it which is an evening event, but I just thought I'd tell you what the, a fuller version is a two-day event, and I'll just explain how that works. It's as much to do with making things work well in a rural community where we, we'd arrive on the Friday afternoon and run a workshop for teachers who like to have things during the working week, and a Friday afternoon, or late Friday afternoon is a good slot to do a couple of hour workshop with them. Then in the evening we do a family session and I'll explain that in a bit more detail, Saturday morning we'd run a training workshop again but this time for more, more for tourism people and community group people. Friday afternoon some family activities and then Saturday afternoon, evening, sorry Saturday afternoon family activities and then Saturday evening stargazing again. Erm and that whole package is a way of trying to make sure that if we're travelling a reasonably long distance from the Central Belt to run this, we're not there for just one short window and if people miss it they can't get to it, or if they miss, miss the advertising but hear by word of mouth that it's exciting they, they've missed the whole thing, and it also gives us this chance to run two training workshops to leave a bit of a legacy in the community of being able to do things themselves. So that's why we have often that sort of two-day programme, but as an individual chunk of that, during an evening session, what we would run on a Friday or Saturday evening, we have five main activities that are, we based things around. So we do stargazing, and I'll say a bit more about that in a minute, we have an inflatable planetarium, so this is like a, it's like an inflatable igloo and you crawl inside, you get 25, 30 people inside and you project the stars onto the inside, now it needs a room of a certain size to be in, but it's, you know it's popular with everyone and it's a real sort of banker for, you now, if it's cloudy you can still go and do the planetarium show. Other things that are also bankers for indoor activities are short talks, so astronomy is just blessed with fantastic images, and so we do fifteen, twenty minutes, short talks, just skip through some of the amazing images on what we know about the night sky so that's, er, always goes down very well, erm we have what we call comet making, there's an activity using dry ice and a few other sort of simple ingredients which you can use to replicate the, the makeup of a real comet, comet, so that can be done in 20 minutes, 20-30 minutes as a sort of family show, and then we've got something called rocket

launching which is people make their, a little rocket using a cone, plastic tube, and put some fins on it and then you have a pressurized air pump, we go outside and blast these things sort 50 feet in the air. So everything's very, those things have been chosen, out of all the things that we could do it's absolutely proven each one is always popular with the audience, and so there's no doubt that the audience is going to come away from the whole thing and have a positive experience definitely a, er tried and tested activities. Erm and a lot of them are designed to be able to be done whatever the weather, we market the events as this will go ahead whatever the weather. But obviously the stargazing is the lynch, you know, the heart of it and there's different ways of looking at the sky in terms of whether you use binoculars or telescopes, but we have a big emphasis on naked eye stargazing. We will have binoculars and sometimes telescopes there, but the fancier the equipment, the more complicated they get to set up and the trickier they are for people to use, and one of the things that we have with the whole approach that we've got is to try and show people and give people things they can use and, and apply themselves, and if you have a stargazing session based around a telescope, at its worst you have people queuing in the cold, for a telescope which when they get there they're not sure what they're meant to be looking for, they can't always be clear what they're seeing through the telescope, they might kick the tripod and it takes five minutes to get it lined up again, they just bring with them a lot of issues which naked eye stargazing doesn't. Now it's not saying you can't run a good telescope session, but we base it much more around, you know, getting to know the night sky. In fact I've got one of these, this is a bit crumpled, you can get some more of these. This is a pocket star chart, it's a bit like a business card for the project but it shows the, it's got eight panels on it, and it shows the northern sky and the southern sky and the four different seasons. So one of the things we're about getting across is helping people to realise and know how and maybe why the sky changes through the seasons, I mean this is a, you know, a basic piece of knowledge that people would have had thousands of years ago, but for most of us we're a bit sketchy about it, and although we've got a bit of an idea about it we're a bit hazy. But the pocket star charts pick out just the very main constellations and they show, you know, they reveal or show how the sky changes erm, you know, during the seasons. So the, the naked eye stargazing is, is, fits with these as giving something that can use to go home to tell their brothers and sisters, their mum and dad, grandparents, friends, and they've learned something that, I mean when you understand how the sky works from one of these star charts this is good for life, you've, it's perm- you know, the sky does not change on the timescales that we're, we're working on

Both: (laugh)

MALCOLM: So, so you know that's a, I wouldn't, wouldn't quite call it a life skill because I'm not sure you need it to survive, but it's good for life, and that's a, it's kind of quite a fundamental thing about people feeling connected to the sky that they know how the sky works

LM: Yeah, so it's more a kind of, rather than using telescopes or binoculars or some kind of technology, it's more about you know getting to know the sky, getting to know what you can see and getting to know it rather than looking

MALCOLM: Yeah and we would have, binoculars are, binoculars are, sit somewhere in-between because they're a lot easier for people to use than telescopes and they're, you can find objects more easily with a telescope with a wider field of view which is why you'll struggle with a telescope, so we'll often have binoculars at events. But that's the next step up, and if people are hooked by the naked eye thing, erm, then they'll go and get a telescope or binoculars and work it out for themselves

LM: What kind of levels of knowledge do the pub- the publics that come to your events usually have of the night sky?

MALCOLM: Well, erm another piece of feedback one of our team members gave which I always thing really hit the nail on the head for me, is what's good about the Dark Sky events is they're both simple and, the simplicity and depth at the same time, where you go from introducing people to the most basic constellations to having a question about dark matter and black holes and then going back to the simple stuff and it, and the, that's I think works for everyone, everyone has this sort of, erm, everyone's got a slightly different, erm, prior knowledge where we've, where we've got sort of some understanding one or two things but big gaps, and so everyone is erm I think you find in the question and answer sessions that everyone's fitting together their own jigsaw in their own way, where they've got different things that they, they know and trying to piece it together with the new things that you're introducing. But the, the typical things would be if you go to the, to the, erm, to the constellations is that most people can recognize the Plough and the Orion, they know those ones, so when we're introducing the night sky, those are the, the landmarks or the, or the sky marks that we, we don't have to explain those as from fresh, but what we can help people do is know why those two constellations are particularly valuable and useful for building up how what the rest of the sky is and how the sky changes. So those are probably the two crucial bits of prior knowledge that we're able to build on, erm people also have a, many people have a pretty good idea about the planets and what the different planets are like, and it's the sort of thing that kids learn a bit by their age anyway, erm, erm so they tend to have those answers ready, one of them, you know. And then for most people they, I personally think where people, where people are very hazy is about things like the depth of the sky, so if you look at the sky it, you can, it can appear as if everything you're looking at is the same distance from you, and it's almost as if everything is flat, a sort of hemisphere, and this is a sort of ancient model of the sky, that it is a hemisphere. And very few people have a sense even that the stars are significantly different distances, or that the things that we can see with the naked eye are, are basically limited to bits of our own galaxy and that there are other galaxies out there way beyond that. That, that sort of mental map of the night sky is something that people would learn at the event rather than that they'd bring to the event, you know.

LM: As I say this is all really interesting stuff for me. Part of one of the broader things that I look at is how people sort of read the environment, how people read the landscape, how they form knowledges of different environments, this fits in, this fits in really well. That's pretty much everything, there's not too much more I think I had to ask. I was just wanting to find out a bit about the, oh, that was, that was the last

thing, the images that you show people, the er, I guess there's something to be said as well for sort of the aesthetics and the aesthetic value of just seeing these erm, these, these pictures. Is it something you find really helps to engage people?

MALCOLM: Absolutely, I think the thing about these short talks is, and different, the way we do these short talks is we don't have a standard one that we give all the time, we tend, at an event we would have three, four or five team members there helping the people, and the talks would, team members would take it in turns and they would all give their own talk about something they were personally interested in. The one that I think is particularly good is this team member whose talk, has this this talk called 'My Favourite Images' so she's a scientist and she tells them that she's a, a research astronomer, but she's simply saying these are my favourite images, and it's, it's partly aesthetic, they are all fantastically beautiful images. She's also interested in them because they're, there's some science within there that you can talk about, I mean why does it, why is, why does it look like this, so I think that used, used well like that the images are a, a brilliant erm way in for people. I mean you could say that they're, you could sat that Dark Sky and the night sky is one way into the sort of deeper knowledge of the universe, fantastic images is completely different. I mean some people could get into this online just through the images, and they wouldn't go anywhere near a star chart or er any of that side of it, erm but for us at the events they provide one of those indoor activities that everyone wants to sit in front of a few, you know, a dozen fantastic images and hear someone explain them for fifteen minutes or so, you know, it always works

LM: Great, the last question is, this is probably something that's based quite heavily in, in science, I come from a humanities background. For an organisation like this, for what you're trying to do, how might humanities research be useful if at all?

MALCOLM: Erm well we did, we did have someone doing a piece of work as part of a Country Manage- Countryside Management post-MSc project, and I think basically it is probably the main area where, well it's one thing is to try and describe the experience that people are having. Erm I mean in the world of research councils where I'm based everyone's interested in impact, you know, and the same thing in any research fund, you know, what's the impact of this activity? And of course we're interested in that, but what we're doing is, it's not, it's not entirely new, people have been shown the night sky in all sorts of ways, but erm the particularly the sort of excitement we get out of our events, we wanted to try and get some one to describe that put it against a sort of conceptual model of learning about the environment. So that was the first stab at that, and it was quite a small piece of work, you know just a project for a postgraduate qualification, but you know I think that, sort of just articulating what's happening at these events is one thing, erm from the point of view of the experience of the public there, that side of it. There's another bit of, er, this which I think erm would be of interest and again it is to do with heading down the impact thing but there's, what's, one of the things that's been very successful about this is it's brought a new, we've had partnerships now with the Forestry Commission, Scottish Natural Heritage, Scottish Arts Council, Historic Scotland and Learning and Teaching Scotland. I mean, any, bas- just about every Scottish agency that might be involved with this now has been involved, and what I think about that

is that it's shown that dark skies and astronomy is part of a broader cultural landscape, erm, and I, I think, you know, someone from a research background and from a social sciences background could perhaps explain that. You know, if I was looking to tell my research council the impact of our work they might want to know number of people who come along to the events and the number of, you know the bums on seats sort of thing, but there's an impact we're having in the, in the cultural sphere and the way Scotland thinks, sees itself and its natural environment, and I think someone from the social sciences could describe that in a way that we haven't really put together yet

LM: U-huh, I see what you mean, so kind of moving away from the, you have x number of visitors coming to see it, you have y number of pounds, but then there's also this bigger picture as well, what people do when they go away from it, what, how they might think about it, how it might affect them afterwards

MALCOLM: Yeah, and it's, I suppose it's, it's, four years ago Scotland wasn't even aware that they had dark skies, now it has, and it, it, it's becoming, for example through tourism marketing it's becoming part of the identity of Scotland. So it's gone from being nowhere to part of its identity that it promotes, you know and that, how far there are, you know what, to me that's a form of impact and I think someone from a research background could articulate that better than I would or at least more neatly, more succinctly. So that's another area, I mean the whole, this whole thing in science education more formally within the curriculum, that we're always interested in knowing how you stimulate children to be more interested in science generally, erm, that's more perhaps more of an educationalist line than a humanities side of things but, yep.

APPENDIX VIII – SAMPLE OF DOCUMENTS CONSULTED FOR CONTEXTUAL INFORMATION

(Scottish Rally Championship response to Scottish Climate Change Bill Consultation)



SCOTTISH CLIMATE CHANGE BILL: CONSULTATION PAPER

Response from the Scottish Rally Championship (SRC)

1. SRC Car Club Ltd are the current organising body of the Scottish Rally Championship, and along with its predecessors have promoted the sport of rallying in the Scottish forests for over 40 years
2. The SRC is the national series of events sanctioned by the Motor Sports Association, the governing body of motor sport in the United Kingdom. This consists of 8 events the length and breadth of the country, 7 of which are run primarily on Forestry Commission roads. These events encompass most of the Forest Districts in Scotland.
3. Over the years, the contribution of rallies to the local economy in various parts of Scotland has been hugely significant. The influx of competitors, officials, media and spectators to remote areas, often outside the main tourist season, has contributed millions to the economy and been acknowledged by local and national government with financial support. Examples of this are:
 - a) The significant financial support of the SRC over the last 2 years from Event Scotland;
 - b) The support for the RSAC Scottish Rally by Dumfries and Galloway Council every year since 1997;
 - c) The Colin McRae Forest Stages, receives similar support from Perth and Kinross Council and in 2008 boasted 6 ex-world Champions on its entry list and attracted record crowds of 45,000 to view the spectacle in the Perthshire forests;
 - d) The forthcoming inaugural RAC MSA Rally of Scotland, which was recently launched by the First Minister and showcased as one of the 'Jewels in the Crown' of the Homecoming Scotland celebrations.
4. None of these events could take place without the support of Forestry Commission Scotland, which makes its network of forest roads available for the competitive sections of each event in accordance with the terms of a Master Agreement negotiated every three years by the Motor Sports Association. Under this Agreement, a payment is made for the use of forest roads: for 2009 this is £573 per mile, meaning that the organisers of a typical one-day rally will pay FCS over £25,000 for the right to exclusive use of the roads on the day of the event.
5. The SRC is fully supportive of the principle of renewable energy programmes as outlined in the Scottish Climate Change Bill. Over the last twenty years motor sport has been to the fore in approaching environmental matters in a responsible manner. We are campaign partners in the Energy Efficient Motorsport programme (EEMS), whose Charter promotes active support for the development of energy efficient technologies in order to further reduce the environmental impact of motorsport. It also takes a pro-active stance in encouraging collaboration on appropriate development initiatives in this field.



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6. We are concerned, however, that the proposal contained in the Bill to offer long-term leases and cutting rights over part of the national forest estate, with a view to allowing the creation of renewable energy programmes, may have an adverse effect on the recreational use of Forestry Commission land by a large and diverse section of the population, and by motor sport users in particular. The agreement between the Motor Sports Association and the Forestry Commission has worked well over almost half a century. It is subject to review every three years to ensure that both parties respond to changing conditions: for example, increased attention is now paid to health and safety matters as well as to environmental concerns. The use of a flat rate charging system allows event organisers to plan and budget for events with some degree of confidence, while the Commission is under an obligation to provide alternative roads as far as is reasonably practicable when operational requirements dictate that roads regularly used for rallying are temporarily unavailable.
7. The consultation paper contains only very general references to public access to the tenanted forests being preserved and/or enhanced, so this will remain a doubt until the full details of the policies behind the proposals emerge. Our particular concerns are as expressed below:
 - Commercial factors may dictate that recreational use is incompatible with the interests of the leaseholders, with the result that individual forest areas may be lost to rallying.
 - There may no longer be a centrally-negotiated charging structure for the use of forests
 - Forests may be withdrawn from rally routes at short notice, with no realistic alternatives being made available, leading to the cancellation of events.
8. Historically, rallying is a sport at which Scotland has excelled, producing four World Champions in the form of the late Colin McRae, Derek Ringer, Robert Reid and Louise Aitken-Walker. The native talent exists to allow this number to increase in the future, but for it to be developed in Scotland, and for foreign drivers to come here to increase the level of competition, the facilities need to be there to enable organisers to continue to organise quality events in the Scottish forests. The financial benefits that the sport brings to rural areas and their economies is substantial and should not be under estimated, especially in the current economic climate

Conclusion

If the proposal is approved to hive off large tracts of the Scottish Forestry assets on long term leases, we would submit that appropriate clauses be embedded within these leases to protect and guarantee the continued access to these areas for the leisure uses that are currently undertaken in the forests in question.



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(Source: [http://www.forestry.gov.uk/pdf/cc399.pdf/\\$FILE/cc399.pdf](http://www.forestry.gov.uk/pdf/cc399.pdf/$FILE/cc399.pdf), accessed 03/03/2011).

APPENDIX IX – SAMPLE OF WIDER DISSEMINATION OF RESEARCH

Letter published in Sunday Herald newspaper, Sunday 12 July 2009

I am at a loss to understand whether William Flood's letter in the Sunday Herald regarding 'frivolous emissions' (dated 5/7/09) is genuine or a wind-up, but either way he does raise some pertinent points about climatic change that are worth considering in more depth.

Firstly, there is the idea of setting targets for reducing carbon emissions. Whilst I do not for a second doubt that our earth's climate is changing at a frightening rate as a result of human activity, as we all know numbers can be manipulated to produce any kind of 'fact' one requires. How can we therefore be certain that we have met the Scottish Executive's targets, and is 'tonnes of carbon' a suitable unit for measuring all human impacts in any case? Surely a much easier starting point would be for us to accept that we make an impact on the natural environment as we go about our daily lives, and that many of these effects are negative. The goal then becomes one of trying to eliminate these impacts in every area of our lives.

Second is the issue of banning everything deemed frivolous from motor sports to power boats to rock concerts. Attempting to outlaw all emissions non-essential to human survival overlooks the issue of why people persist in such activities in the first instance. As well as drawing up charts of the number of tonnes of carbon put into the atmosphere by every single human activity, then, what is perhaps needed is an open and reflective discussion on the values we as humans invest in the ways we interact with our surroundings. Engaging in discussion with those who continue with activities fundamentally destructive to the planet despite ethical criticisms may reveal areas where their ecological footprint can be greatly reduced, whilst still allowing them to interact with their surroundings in a way they value.

I have worked with the RSAC Scottish Rally for the last few years as part of my university research, and have never failed to be impressed by how seriously the event takes environmental issues. This is not a question of 'greenwashing', though - through careful consultation with the Forestry Commission, landowners and other forest users, the rally is striving to become an event that continues the rich Scottish tradition of success and innovation in motor sport in an environmentally sound manner. I do not believe that anyone involved in rallying actually derives pleasure from damaging the planet, and simply dismissing activities such as rally driving offhand may serve only to alienate groups of people otherwise willing to carefully and critically engage with the effects their lifestyles have on the environment.

Leslie Mabon
Edinburgh

APPENDIX X: ABSTRACTS OF WORK ACCEPTED FOR PUBLICATION

(a) Mabon L (forthcoming) 'Pragmatism, powersliding and participation: linking environmental ethics theory with practice' in S Majima (ed) *Applied Ethics? Old Wine in New Bottles?* University of Hokkaido: Sapporo.

This paper explores the potential of ideas from environmental ethics in engaging with stakeholders perhaps more hostile to the concept of respect for nature. The example of rally driving in Scotland is drawn on to discuss how ideas and concepts from environmental ethics – in this case environmental pragmatism – can help to shape environmental thinking in practice, and also how insights from stakeholders can enhance the applicability of theoretical ideas. In particular, the heterogeneity of embodied experiences of the environment, the dynamic nature of ecological identities and the role of narrative trajectory of place at a local scale are explored as areas of reciprocity between theory and practice.

The paper is grounded in debates in the environmental values literature concerning the social contribution of environmental ethics. A view of practical philosophy as beginning with real-world dilemmas and introducing environmental ethics as and when necessary is used as a starting point. I also argue, however, that ideas from environmental philosophy can in themselves play a key role in affecting practical change by illuminating how actors come to adopt particular viewpoints and reason round behaviours. At the same time, I draw on the concept of ecological identity work to consider how practical action may feed back into environmental ethics ideas.

Keywords: ecological identity; environmental ethics; environmental pragmatism; narrative; place values.

(b) Mabon L (forthcoming) 'Respect for nature at 200 km/h? Exploring the role of lifestyle mobilities in environmental responsibility' in Duncan T, S Cohen and M Thulemark (eds) *Lifestyle Mobilities and Corporealities* Ashgate: Farnham.

In this paper, I explore the potential of the idea of lifestyle mobilities in rising to some of the challenges posed by contemporary environmental issues. I argue that developing a nuanced, contextualized understanding of how mobilities fit into people's lifestyles can play a pivotal role in imagining more sustainable mobility futures. What I mean by this is that – particularly with more destructive means of mobility such as air travel and automobility – getting under how particular kinds of mobility fit into broader life narratives might help to explain why people continue with seemingly environmentally destructive practices.

I consider this idea of lifestyle mobilities in practice through empirical work carried out with rally drivers in Scotland. Drawing on data constructed through ethnographic participant observation, in-depth interviewing, field notes and participatory action research, I look at the role life narratives play in shaping rally competitors' continuation of an arguably environmentally damaging practice. I focus on place values, relationships to other humans and non-rallying identities as broader factors moving participants to continue rallying. I also bring in data constructed with non-participants – other recreational lifestyle mobilities including mountain biking and dog sledding – to consider what makes the rallying lifestyle unique.

By place values, what I mean is the way particular locations come to be seen as meaningful or valuable to practitioners of recreational mobilities. I look at the way the physical sensations generated by topographical features translate themselves into emotional experiences, and I explore the role of narratives of place in helping certain spaces to acquire reverence for particular lifestyle mobility communities. Following on from this, I discuss how relationships to other humans can make the recreational lifestyle mobility experience more valuable and shape particular views towards practice and place. Finally, by exploring the other identities a person may hold, I discuss the idea of lifestyle mobilities as an 'escape' from professional life. I also

argue, however, that if one is to understand why people persist with environmentally harmful mobilities, then one needs to pay attention to the other identities a person may hold and think through the way these wider lifestyle contexts can inform their views of the environmental impacts of their mobility. All of these points are illustrated with reference to empirical examples from both rally participants and non-participants.

I contend that thinking about environmentally damaging mobilities as part of people's broader lifestyles can help to illuminate what precisely is valued in different mobilities. In turn, it might be possible to imagine more sustainable futures that preserve the aspects stakeholders value whilst mitigating some of the more environmentally harmful aspects. Furthermore, I also suggest that thinking through the ways in which lifestyle mobilities fit into stakeholders' world views can aid understanding of why some stakeholders may be hostile to critical reflection on the environmental effects of their mobility, and can give pointers as to the kind of engagement or information to which such stakeholders are more likely to be amenable.

Keywords: automobility; deliberation; environmental ethics; lifestyle mobilities; qualitative research.