Unremarkable and Uncontroversial? Climate Change Actions in Advertising and Public Discourse

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Acknowledgments

Abstract

Despite widespread public awareness, climate change remains a low priority compared to other public issues. This study's starting point is the normative importance of public discourse about climate change in representing and legitimising public actions as responses to climate change. The study also explores public connection, how and to what extent the public engage with public discourse about climate change. The study has two main elements: (i) a discursive content analysis of 55 corporate, governmental and NGO websites, based on advertising, a widely consumed form of media discourse that has received relatively little attention in this context; and (ii) 23 semi-structured public interviews. A small number of individual domestic emissions reduction actions, often framed as unremarkable and uncontroversial, dominated the media sample, reflecting corporate communicators domination of this discourse. The same actions were integral to interviewees' understanding of climate change, not due to acceptance of their efficacy, but a lack of awareness of alternative forms of action. Five linguistic repertoires used to frame these actions in the media sample are described in detail. Public connection to climate change reflected the strength of people's wider public connection, both their talk about public issues and the quality and quantity of their news use. Overall, public connection to climate change was weak, reflecting low media coverage and norms of 'climate silence' in everyday life, resulting in a lack of opportunities for climate talk or deliberation about climate actions. The study identifies the need for both greater opportunities for public involvement in agenda setting, and more public interest content, in both the media and academia. These weaknesses of public connection to climate change reflect many wider concerns about public connection to democratic politics. The study highlights the crucial role that the construction of public opinion plays in legitimising both specific climate actions and a wider shift to a low-carbon society.

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1 Introduction

Increasing scientific consensus about climate change, outlined in a series of International Panel on Climate Change (IPCC) reports (e.g. IPCC 2013), has led to growing recognition that climate change is an urgent public issue with major societal implications. In the UK context, the Climate Change Act 2008 sets out legally binding targets to reduce carbon emissions by 80% by 2050, compared to 1990 levels. The shift to a low carbon society that these targets require is in stark contrast to ongoing rises in levels of global atmospheric Carbon Dioxide (CO_2), which are tied to both emissions embedded in existing societal systems and rising consumer aspirations (Druckman & Jackson 2009). Despite near universal levels of awareness of climate change in the UK (Leiserowitz 2007, p.3), it remains a low public priority for action compared to many other public issues (Rowson 2013, p.31).

The focus of my study on public discourse about climate change is informed by a normative commitment to deliberative democracy; in this context it looks at the role of public discourse in giving people the opportunity to deliberate about public issues, such as climate change, leading to the formation of public opinion (Habermas 1989). The media are an important source of information about climate change for the public (Whitmarsh 2009a, p.405) and they also play a role in shaping and articulating public opinion through the reproduction and transformation of claims about climate change (Carvalho & Burgess 2005). In particular, my study is interested in climate actions as public actions, actions that are constructed as potential responses to public issues, such as climate change, that are of common concern for society (Couldry et al. 2007). The importance of representations of climate actions as public actions extends beyond promoting the specific action represented, they have a wider significance as a central element in the construction of climate change as a whole in public discourse.

The main focus of research into climate change in the media has been news coverage, in particular newspapers (67.5% of all studies; Schäfer & Schlichting 2014, p.151). Although there is increasing attention towards online coverage of climate change, these studies remain a small minority and their most common subject is newspapers' websites (Schäfer & Schlichting 2014, p.151). News coverage of climate change tends to focus on impacts and climate science, rather than potential actions (Anderson 2009, pp.174-5). Likewise, the focus of research into public opinion on climate change is belief in (59% of studies), and concern about (51%), climate change, rather than intention to take climate actions (8%) (McCright et al 2016, p.181). In this context, we know relatively little about the types of actions represented in public discourse or the role they play in public understandings of climate change.

My research addresses these understudied areas by looking at advertising, a pervasive form of action oriented media discourse, through a sample of organisational websites. Advertising is an important part of public discourse about many common products and actions related to climate change (for example in the energy and mobile sectors which are focuses of this study), due not only to its prevalence, but also because, unlike news, its reception requires little attention to public issues. Past studies of green advertising have primarily looked at consumer responses to the use of climate and other environmental claims to promote specific products and/or firms (Leonidou & Leonidou 2011, p.85). Analysis of the content of green advertising has often focused on the accuracy of environmental claims and greenwashing (for example Futerra 2008; TerraChoice 2010; Baum 2012), while the choice and framing of actions to address environmental issues had received much less attention. More broadly, increasing levels of advertising are closely associated with increasing consumption which drives carbon emissions (Brulle & Young 2007). The pervasiveness of advertising, and its economic importance to our media system, also contributes to the domination of a set of values and assumptions that may work against environmental action (Schudson 1984; Jhally 2006); including the assumption that people act as consumers not citizens (Rumpala 2011).

In addition to this type of consumer advertising, research has also looked at the growing role of public relations (PR) techniques, which have a more explicitly public role in advocating for action(s) and seeking to manage the flow of information in public discourse (Hansen 2011, p.13). By engaging in this contest for public visibility PR may undermine the normative function of public discourse, replacing deliberation with the strategic pursuit of communicators' interests (Greenberg et al 2007, p.77). The primary focus of research into online climate communication has been on environmental NGOs, finding they often use it as a way to generate news media attention in this contest for public visibility (Schäfer 2012). There has been comparatively little attention paid to online messaging from governmental and corporate communicators, with research often focusing on sceptical messages and/or organisations, rather than those promoting action (Schäfer 2012).

Public reception of media coverage of climate change takes place in the context of wider public connection, a shared orientation towards public issues and public discourse, including through media use. Media coverage of, and public concern about, climate change are driven by wider public factors, in particular the level of elite actors' discussion about climate change, and also general economic conditions (Carmichael & Brulle 2017). Findings on the effects of general media usage are more mixed; greater levels of general media connection have been linked with greater levels of self-reported knowledge about climate change (Zhao 2009, p.713). Links to the adoption of specific actions are far more difficult to establish, and are not the focus of my study. Public connection as a general orientation towards public discourse takes place through a range of specific civic practices, which include both media usage habits and participation in public life, that create the context for talk and deliberation about public issues (Eliasoph 1998, p.22). Talk has been shown to be an important predictor of climate actions (Roser-Renouf et al. 2014, p.175), current generally low levels of climate talk have been characterised as 'climate silence' (Rowson 2013, p.8). Climate change also needs to be set in the context of wider concerns about declining public connection; both falling levels of public participation in, and decreasing perceptions of the legitimacy of, political processes, and also shifting patterns of media use destabilising longstanding

patterns of news consumption that have been central to public connection (Couldry et al 2007, p.180).

The focus of research on news media and public belief in, and concern about, climate change, means that there has been relatively little attention paid to the types of climate actions found in public discourse or the role they play in making climate change meaningful. Therefore, my research looks in detail at the types of actions a broad range of advertisers and the public associate with climate change, and the ways in which they frame these actions as responses to climate change. Past research has demonstrated the role media and public connection play in public perceptions of climate change, but relatively little is known about the specific details of how and when this connection takes place. The study addresses the following **research questions**:

> *What types of climate actions are most common in advertising and public discourse?*

> *What role do these actions play in the construction of climate change as a public issue?*

> *What forms do public connection to climate change take?*

> *How are these related to wider forms of public connection?*

The study takes an exploratory methodological approach to look in depth at public discourse about climate actions. The first phase of the research explores the range of public actions promoted in response to climate change through a discursive content analysis of organisational websites from a range of communicators.   This approach enables exploration of a wide range of different communicators' framings of climate actions. The second phase of the research explores in detail how and when public connection to climate change takes place through semi-structured interviews, and self-completion questionnaires, with a sample of the Welsh public. The interviews also enabled comparisons between media and public framings of climate actions, including detailed analysis of the most prominent linguistic

repertoires, specific framings of climate change found in the media sample discourse.

The next chapter reviews the existing literature and is structured around four key topics: public action; public discourse; public connection; and advertising and public relations.   Chapter 3 outlines my methodological approach in more detail. The following five chapters present and discuss the study findings: from the media phase (chapter 4), the five main linguistic repertoires identified in the media sample (chapter 5), findings from the public interviews are presented in chapters 6 and 7, and public understandings of the main linguistic repertoires in chapter 8. Finally, chapter 9 brings together the main conclusions, and discusses their implications and links with the wider literature.

2 Literature Review

2.1 Introduction

This review explores the rationale for my research by discussing key concepts and literature. It will explore the types of climate actions that are prominent in public discourse, and the role they play in constructing climate change as a public issue, focusing in particular on the types of actions promoted in advertising and PR. It places climate change in the context of wider trends in public discourse. The review also places my study in the context of current research findings and methodological approaches.

After briefly introducing the concept of the public, the review is divided into four main sections. The first section relates trends in forms of public action generally to current research about action on climate change specifically. Then the role that public discourse plays in the construction of public issues is outlined. How these discourses are translated into action, or not, is then explored through the concept of public connection. The final section examines the role of advertising and PR in public discourse and relates this to climate change.

2.1.1 The Public

The public is a central concept in my study, providing the analytical lens through which I examine climate actions. The public is most commonly contrasted to the private. Two related, but distinct, common conceptual differentiations of public and private are identified by Couldry et al. (2007, p.7). Firstly, the difference between public issues that are recognised as being of common concern for society, and private issues that are seen as affecting only individuals and/or close personal acquaintances. Secondly, the difference between public spaces which are open to all, and the private spaces of individuals or families. The difference between the two can be illustrated with a climate related example, home energy saving actions. These are private under the second criteria because they take place at home, in the

private sphere. Whether they are public under the first criteria depends on the person taking them; home energy saving may be a response to the public issue of climate change, or alternatively a private action to save money; in reality a mix of motivations is likely (Whitmarsh 2009). This highlights the contestability of whether or not an issue is public or private, or indeed whether it is seen as an issue requiring action at all. These are not inherent properties of that issue, but emerge through public discourse. The increasing recognition of public issues within private spaces is a significant trend (Schudson 2006) summed up by the phrase 'the personal is political.' The division between public and private actions and how this relates to climate actions is explored in more detail in the next section of this literature review. For the purposes of my study the decisive factor in determining an action's publicness is people's awareness of claims of their publicness; not their motivations for (in)action, or their views on the validity of these claims of publicness (although both are of relevance to the analysis).   This reflects the focus of my study on one particular element of climate actions, how they are understood as responses to issues of public concern.

2.2 Public Action

The range of types of public actions studied has widened in recent years. In part this has been driven by concern about declining levels of traditional forms of political participation in many Western countries, including Wales. Putnam (2000) placed these declines in a wider context by identifying long term declines in participation across a range of forms of public engagement. Some scholars, such as Berger (2009), have argued that the range of actions included in public engagement is so wide as to make the term analytically meaningless. However, Putnam included within his analysis many forms of collective engagement (including the famous bowling leagues) that help to build social capital, which he argued make an important contribution to people's level of participation, but are not themselves forms of public action. By limiting analysis to forms of action that are taken in response to public concerns, it is possible to construct a typology of public actions

that makes analytically useful distinctions between different types of public action. For this study I adopted Ekman and Amna's (2012) typology, outlined in detail in the methodology chapter.

A key distinction in this typology is between individual and collective forms of public action (Ekman and Amna 2012, p.10). A shift from collective public action to more single issue based forms of individual public action is central to the trends in public engagement identified by Putnam. There has undoubtedly been a decline in many traditional forms of political participation such as voter turnout and membership of political parties (PostNote, 2015), but wider trends in public action and what these mean for the health of public life as a whole have been the subject of considerable debate. Those taking a negative view have identified the weakening of the basis for collective action, both political parties and the third sector have shifted from being mass membership organisations to structures based on professional staff and subscriptions (Putnam 2000, p.49-62). There has also been concern about the increasing importance attached to individual consumer choice as a method of securing public goods at the expense of collective deliberation by citizens (Clarke & Newman 2007). More positive interpretations emphasise the shift to less deferential forms of citizenship based on individual rights; challenging exclusionary elements of community based politics and politicising many personal issues not previously seen as public concerns (Schudson 2006, pp.600-4). Individualism can also drive personalised political commitment, rather than inevitably leading to disengagement with public issues (Lichterman 1996). Opinion remains mixed on whether these shifts represent an absolute decline in overall levels of public action, or if people are participating in new, possibly more individualised, forms of public action, that are not recognised by traditional measures of participation. One thing that appears clear is that there is not a significant group of people who have abandoned traditional political participation for newer forms of single issue public action; studies consistently show that the same people are most heavily involved in both types of action (Putnam 2000, p.133; Bromley et al. 2004, p.11).

The rise of the modern environmental movement since the 1960s has coincided, and been closely associated, with many of these trends in public action away from

traditional political participation. There have, however, also been a series of significant new pieces of environmental legislation associated with this movement. Putnam (2000) looked at environmentalism as a prototypical case of these trends to see if new forms of public action were replacing more traditional forms of political involvement. He concluded that environmental organisations were often not vehicles of participatory democracy, but reflected a larger trend towards bureaucratisation of social discontent, with professional staff increasingly dominating leadership roles (Putnam 2000, p.159). Competition for membership fees may keep these organisations responsive to public concerns, but this model significantly curtails the range of public actions most members take (Putnam 2000, p.160). Others have expressed similar concerns about the lack of popular participation in major environmental organisations (Brulle 2010, p.91). Studies of climate actions have paid far less attention to placing these actions in the context of wider trends in public action, something that my study seeks to help address.

Climate actions have frequently been studied through the lens of domestic emission reductions. There is significant scope for climate action in and around the home, with residential (31%) and domestic transport (24%) accounting for over half of total UK emissions (Preston et al. 2013, pp.20-22). The emphasis on domestic emissions reflects a strong focus on mitigation over adaptation actions in much of climate discourse (Adger et al. 2009). A range of familiar home and transport related actions have become closely associated with tackling climate change in both expert and public discourse, some of which are quite widely adopted, for example home energy saving (76%), recycling (91%) and reducing driving for short journeys (62%; DEFRA 2009). People may have a variety of different intentions and be motivated by a range of other factors beyond public concern about climate change in taking these common climate actions (Whitmarsh 2009b, p.15). These other, often non-public, motivations are also part of the construction of climate change in public discourse. To be a public action in the context of this study requires people recognise the action as relating to climate change as a public issue; however, people taking the action may still be primarily (or even solely) motivated by other non-public factors.

The prominence of domestic emissions reduction actions in public discourse means it is important for my study to further subdivide them for analysis. An important distinction that relates directly to the public aspect of these actions is between intent and impact. The actions with the largest potential carbon reduction impact are often not those taken with the intention of addressing climate change. For example, purchasing decisions for household appliances are one of the most significant actions in terms of impact, but are frequently motivated by finances rather than environmental intent (Stern 2000, p.410). In contrast, the most common actions taken with the intent of addressing climate change, such as recycling, may have relatively little impact. It has been suggested that this green intent may have a catalyst or spillover effect, leading to 'going green' and taking further actions. Conversely, taking action for financial reasons or taking a limited number of actions for green reasons may be seen as sufficient to 'do your bit', or even lead to moral licensing and rebound in other areas (Lacasse 2015, p.757). Whitmarsh and O'Neill (2010, p. 310) identified groups of similar, in terms of context and frequency, actions that appear to be taken together. Intent and impact may be more explicitly public features of climate actions; however, it seems likely that public actions which are more frequently taken together (whether for public or non-public reasons) will also occur together in public discourse. My study, therefore, adopted the categories identified by Whitmarsh and O'Neill (2010), outlined in detail in the methodology chapter, to further analyse these actions.

Structural factors often have a greater influence than individual factors (e.g. climate change attitudes) on whether or not people take climate actions; these factors are important elements in the construction of climate actions in public discourse. Demographic factors have been shown to affect levels of household carbon emissions; for example, higher emissions are closely linked to higher levels of income (Druckman & Jackson 2009). Attitudes towards climate change involve both cognitive and affective (i.e. emotional) elements (Whitmarsh et al. 2011, p.26), attitudes are more important when structural and social factors are less significant barriers to behaviour change (Stern & Oskamp 1987). Therefore, it is possible to identify and target specific actions where individual decision-making has a

significant influence (Wolf & Moser 2011, p.563). An important distinction can be made between one-off actions, for example the purchase of appliances, and habitual behaviours, such as home energy use, which involve less conscious decision making (Whitmarsh et al. 2011, p.10). Social norms can be a limitation as holding beliefs and undertaking actions on climate change that are out of line with your peer group can impose significant penalties (Kahan et al. 2011, p.12). Conversely, where climate actions become the majority behaviour then social norms will encourage people to take action, particularly in cases such as kerbside recycling where the action is publicly visible (Rettie et al. 2012, p.421). Both individual and structural factors are often framed as a range of barriers limiting climate action (for example, Lorenzoni et al. 2007). This identification of barriers reflects a tendency to treat not taking action as the default response to climate change, it is important to note that inaction, like action, requires explanation (Norgaard 2006, p.390).

Rather than being a defensive reaction to the complexity and magnitude of the problem, public inaction may instead be the result of a realistic assessment of the likely efficacy of individual actions alone, in the context of ossified structural factors (Wolf & Moser 2011, p.563). Furthermore, people may also modify their beliefs about climate change in order to justify inaction. For example, public opinion surveys have consistently shown that worsening economic conditions not only decrease levels of concern about climate change, but also decrease levels of belief that climate change is occurring, making reduced concern more justifiable (Scruggs & Benegal 2012 p.511). These structural constraints highlight the importance of looking at collective action and policy support as well as individual actions. For some actions that are unpopular at the individual level, a compulsory legislative approach may be seen as legitimate, if they are perceived as necessary (Horton & Dorn 2011, p.73). For example, banning smoking in public spaces and compulsory seat belts were widely accepted as legitimate uses of compulsion where individual action had failed (Horton & Dorn 2011, p.58). In this context, the ability of government to take action on climate change has been the source of some concern; climate change takes place on a far longer timescale than electoral cycles, and

governments are also subject to many of the same concerns as individuals, for example, about free riders in the absence of international agreement. These concerns also relate to debates about the boundaries and nature of public action, particularly in relation to current understandings of the idea of the citizen consumer, where more collective responses may increasingly be seen as undermining people's legitimate public autonomy (Ockwell et al. 2009, p.315). The publicness of climate actions needs to be placed in the context of this range of other factors in order to gain a full picture of how climate actions are constructed in public discourse.

In sum, there has been considerable research into climate actions, which has revealed a range of factors effecting what climate actions people do or do not take. However, much less attention has been paid to these actions as forms of public action. By studying them as forms of public action we can place them in the context of wider trends in public participation and also enhance our understanding of how these actions are understood by the public, in particular through their construction in public discourse.

2.3 Public Discourse

The function of public discourse is to form public opinion about taking action on public issues, such as climate change; as such, it is based on a normative commitment to deliberative democracy. Habermas' (1989) conceptualisation of the public sphere, informed by this commitment, remains the foundation for many current theories about public discourse. Habermas' (2006, p.413) account of the creation of the public sphere emphasised the importance of the production of public opinion in an inclusive and transparent manner, where, in contrast to the past, status was not important and deliberation took place between equals, which serves to legitimise political actions. Critics have pointed out a number of ways in which the bourgeois public sphere that Habermas described falls short of this normative ideal, particularly in regards to concealing inequality and the ways in which issues are, or are not, accepted as public concerns in the first place (Fraser

1990). Many of these critiques have come from the perspective of feminism and other forms of identity politics, which have also been closely associated with the rise of alternative forms of individual public action outlined in the previous section. These trends highlight that public actions do not pre-exist public discourse, but are created within it, as part of the construction of public issues such as climate change; reflecting that discourse 'is a set of practices that systematically form the objects of which they speak' (Foucault 1972, p.49). It is for this reason that my study explores the specific civic practices through which public discourse about climate change takes place. (The discursive approach of my study is discussed in more detail in the methodology chapter).

The central role of the media in contemporary public discourse has important consequences for how this normative commitment to democracy is realised through civic practices. Thompson (1995) argues that the shift to mediated forms of communication in the public sphere presents a challenge for many conceptions of democracy that take as their ideal face-to-face deliberation. As a result, assessments of the health of public discourse which search for evidence of this type of dialogue are likely to be unfavourable. Instead, he proposes that attention should be paid to the struggles for media visibility that have characterised the politicisation of everyday life associated with the rise of social movements (Thompson 1995, p.243-9). Concerns about the potential damage the increasing power of the media may do to this normative function of public discourse have been widespread; particularly the importance of advertising to the media's financial model, explored below in more detail in the section on advertising and PR. Media coverage is the public's most common source of information about climate change (Whitmarsh 2009a, p.405), and levels of media coverage have been shown to be an important driver of public concern about climate change (Brulle et al. 2012, p.185). Struggles for visibility and legitimisation have played an important role in Green politics. The environmental movement, including perhaps most famously Greenpeace, have oriented many of their campaign tactics around the struggle for media visibility, by attempting to 'infiltrate popular culture through a media presence by making environmental issues culturally meaningful and symbolically

recognisable' (Doyle 2007, p.135). My study explores the legitimisation of climate actions in the context of these links between mediated visibility, the rise of social movements and the politicisation of everyday life.

Scientific discourse has played an important role in establishing the legitimacy of climate change in public discourse. When climate change first gained widespread public prominence in the late 1980s it came soon after the hole in the ozone layer, a similar issue (both atmospheric problems caused by human emissions) which had been successfully resolved through the Montreal Protocol. As a result climate change was also conceptualised in public discourse as being amenable to similar technical solutions, based on the provision of expert information about the need to reduce emissions. However, unlike ozone, climate change did not involve a set of chemicals with limited uses, carbon emissions come from a far wider range of sources making it far less amenable to technical solutions (Bierman 2000, p.5-6). In this context, debates about climate science can frequently become proxies for debates about wider political and social issues that proposed actions would affect (Oreskes 2005, p.954). The limitations of climate messages based solely on science-based information provision are now widely recognised, although they still retain an intuitive appeal (Burgess et al. 1998, p.1447). Scientific information about climate change has an important role in public discourse, including assessing the potential efficacy of different actions, but this information cannot answer wider questions about these actions' public legitimacy. The rest of this section looks at the existing literature on public discourse about climate change, particularly in relation to public legitimacy.

The news has been a focus for much of the research on media coverage of climate change. Levels of coverage of climate change, like other environmental issues, are not closely related to overall trends in physical environmental conditions (Hansen 2010, p.38). Studies tracking climate reporting have shown spikes in coverage around major climate events, such as political, scientific or extreme weather events (Boykoff & Roberts 2007, p.4-5). Concepts from more specialist discourses associated with these events, such as the idea of tipping points from international climate policy discourse, may then enter into wider public discourse (Liverman

2009). While news coverage driven by climate events may provide compelling content, it often contains little contextual information about these events' overall significance (Hargreaves et al. 2003), and in the absence of such events climate change tends to drop down the news agenda (Boykoff & Roberts 2007, p.5). In relation to the news agenda as a whole, even these peak levels of coverage of climate change remain very low in comparison to baseline levels for 'bread and butter' issues such as the economy and health care (Gavin 2009, p.769). Part of the reason for this may be that climate change as an issue fits poorly with journalistic norms and news values. Its long-term impacts lack the immediacy of issues that tend to dominate the news agenda, such as the economy or war (Anderson 2009, p.172). Also, the complexity of climate change's potential economic, social and political impacts means that even when it does achieve prominence the focus on climate change can be lost and coverage become diffused (Smith 2005). Specialist environmental correspondents, who can build up the knowledge and contacts to develop stories, are particularly vulnerable to a combination of financial pressures and technological change that have greatly increased journalists' reliance on pre-packaged information from external PR sources at the expense of their own reporting (Lewis et al. 2008), making this an unstable role in many news organisations (Gaber 2000). The prominence of climate change in the wider news agenda plays an important role in perceptions of its legitimacy as a public issue.

Turning from levels of news coverage to its content, one of the most well-known features of climate coverage is 'balance as bias'. The increasing politicisation of climate change after 1990 led to the widespread use of the journalistic balancing norm, giving equal coverage to both sides, and as a result news coverage failed to reflect the level of scientific consensus about anthropogenic climate change (Boykoff & Boykoff 2004). There has been some evidence that the use of this type of false balancing is reducing (Boykoff 2007), or being displaced from news to opinion stories (Painter & Gavin 2015); it has also been more common in the Anglophone media than in other parts of the world (Painter & Ashe 2012). A well-funded campaign by fossil-fuel interests has played an important part in the promotion of doubt about climate change (Oreskes & Conway 2010). More broadly

media coverage of climate change has been shown to be framed along ideological lines, particularly in newspaper coverage, which has been the most commonly studied media type. Coverage in the UK press has shown clear divisions in framing along left/right ideological lines, with cues from elite politicians, particularly those in the governing party, having a strong influence on this framing (Carvalho & Burgess 2005, Carvalho 2007).

Both climate change and wider environmental content are relatively rare in non-news media. Despite this low prominence there is a widespread implicit assumption within non-news media that protecting the environment is a good thing (Howard-Williams 2011). A few high-profile media texts, such as Al Gore's *An Inconvenient Truth*, have achieved high enough public prominence to cause spikes in public concern about climate change. Like other such climate content these high-profile texts have tended to include alarming content (Lowe 2006), have short term effects (Howell 2011, p.181) and are often primarily consumed by the already concerned (Howell 2011, p.179). Beyond these high profile examples, researchers have also been interested in the increasing quantity of green lifestyle content. This content often primarily situates climate action in the context of purchasing consumer goods (Howard-Williams 2011, p.36), but it is also part of a wider rise in lifestyle content associated with the politicisation of previously private everyday practices (Lewis 2012, p.324). That heavy television viewers take less action on climate change has been a frequent finding of cultivation analysis examining the combined effects of all media content over time on viewers' beliefs and perspectives (Morgan & Shanahan 2010, p.347). One potential explanation for this is the lack of representation of the environment on television. Good (2007) suggests that it is also due to television's cultivation of materialism. Holbert et al. (2003) found people who are already environmentally concerned, are more likely to access factual television content about the environment, which has a small additional positive effect on their level of action. Ahern (2012) combines these results to suggest that while in most countries increased media availability is associated with decreased environmental support, beyond a certain, quite high level of GDP, this trend reverses and media availability leads to the cultivation of

post-materialist values. The focus of this study reflects the important role non-news media can play in legitimising climate change as a subject of public discourse.

A number of studies have examined how the legitimacy of climate change as a topic in public discourse is established. Public discourse is not just a simplified version of scientific or policy discourse with the same concepts carried across unproblematically (Pearce et al. 2015, p.619). It also draws on other domains to legitimise climate action, including long standing cultural understandings of the environment and nature (Hansen 2010, p.100). The meanings attached to climate change in public discourse are constituted through the communication process, rather than pre-existing it (Ballantyne 2016). In this context, how the sources of claims are represented plays an important role in their legitimacy. Maier (2011) examined how a range of different speakers were represented on screen using a number of different legitimising techniques (such as whether they were named on screen or spoke directly to camera), and how these techniques enhanced or reduced the credibility of the meanings they attached to climate change. One of the most powerful techniques used was to conceal the source of claims behind legitimising phrases such as 'many think that...'. Elite politicians' public statements have a powerful legitimising effect, Brulle et al. (2012) found they were the strongest predictor of public perceptions of climate threat and also generated news coverage further reinforcing this trend. The use of non-human claim makers, such as iconic species (for example polar bears) and graphical information (the famous 'hockey stick' graph), can bolster the legitimacy of calls for action, due to perceptions of them as found objects, rather than constructed human representations of the natural world (Hamblyn 2009, p.232). My study is interested in the role of these legitimising devices as important elements in constructing the extent, and limits, of the general pro-environmental stance of non-news media.

Visual representations of climate change play an important role in the struggle for visibility in mediated public discourse. Sets of stock visuals that symbolically represent the causes (e.g., smokestacks) and impacts (e.g., collapsing ice shelves) of climate change in news media play an important role in making climate change visible in public discourse (Lester & Cottle 2009, p.928). Images of climate change

also draw on older visual repertoires about nature and the environment, for example representations of nature as either a pristine wildernesses or a resource for human use (Remillard 2009). Visual representation can create a greater affective response and increase the saliency of information in memory (Smith & Joffe 2009, p.660). The visual can make climate change more real, but could also reinforce the idea that elements of climate change that cannot be seen are not important (Doyle 2007). Images can make climate more relevant to audiences by tailoring it to their interests and through understanding how particular audiences relate to climate imagery (Slocum 2004, Nicholson-Cole 2005, O'Neill & Hume 2009). Visual elements of public discourse of climate change have been relatively under studied. In particular my study is interested in how advertisers use them to legitimise climate actions in the contest for public visibility.

Another important element in the legitimacy attached to public actions is the representation of public opinion, which can affect what action is considered possible by both government and the public themselves (Gavin 2009, p.765). Research is moving away from verifying that public has the 'correct' understanding of climate messages (Nerlich et al. 2010, p.106), however, these types of one-way models of communication continue to inform a common construction of public opinion in terms of science and risk, rather than capacity and efficacy (Wolf & Moser 2011, p.563). Opinion polls are one of the most common and powerful devices used to construct public opinion, but typically standards for reporting the details of climate polls in the media (such as precise question wording and response options), which would enable clear understanding of the poll's findings are not met (Höppner 2010, p.985). Instead, the construction of the public begins prior to the reporting of polls with their strategic commissioning and design, often timed to tie in with major events, to support a pre-determined framing of climate change (Höppner 2010, p.995). A number of green NGOs have produced opinion polls to support constructions of the public as increasingly engaging in ethical consumption (Clarke et al. 2007). However, the majority of polls are produced as part of the political debate about climate change and climate science and the overall effect of this use of polls in the UK press has been to create 'largely unproven images of a

denying, apathetic and hypocritical public' (Höppner 2010, p 978). This is part of a larger trend in which public opinion on climate change has commonly been conceptualised as a series of constraints on public action that need to be modified or overcome (Horton & Doron 2011, p.75). Analysing the strategic construction and use of public opinion to legitimise (in)action on climate change is an important part of my study.

In sum, the central role that the news media plays in constructing climate change as a public issue has been widely studied. However, there has been limited attention paid to how the representation of public actions contributes to the construction of climate change in public discourse, particularly as actions are more commonly found in non-news media, a gap which this study aims to address by focusing in particular on the role of the struggle for visibility and the legitimisation of actions in the construction of climate change in public discourse.

2.4 Public Connection

Public connection is the shared orientation of citizens towards public issues that is necessary for public discourse to fulfil its normative democratic function (Couldry et al. 2007, p.3). Public connection is formed through specific civic practices, including both media usage habits and participation in public life, that create the context for talk and deliberation about public issues (Eliasoph 1998, p.22). A model of public connection that rests on full attention for a large proportion of the time, or anything approaching this, asks an unrealistic amount from people, and cannot, therefore, serve as a realistic basis for a functioning democracy (Schudson 1999, p.310-1). Public connection rests on the quality and quantity of opportunities available for deliberation and decision making but does not require widespread levels of political expertise. In this context, it is important to consider what level of public connection is necessary for a healthy democracy, and whether the types and quality of current civic practices provide people with a meaningful public connection. Couldry et al. (2007) identified two significant gaps that have weakened public connection in the UK. Firstly, a gap between everyday talk about

public issues and public action that was primarily the result of limited opportunities for action rather than people's motivation to participate; although a significant majority engaged in opinion forming talk, this talk was rarely linked to opportunities for action, limiting its deliberative character (Couldry et al. 2007, p.183). Secondly, many people who were heavily involved in civic action (i.e. non-political forms of public action), did not see any connection between the public world they engaged with 'on the ground' and the world of politics; for example the disconnection between their everyday experience of the court system and politicians presentation of criminal justice as a public issue in the media (Couldry et al. 2007, p.127).

More positively, Schudson (1999, p.299) identifies the growth of public connection through the micro-processes of social life. Processes which in the past were confined to the private realm, are now based on talk in households and elsewhere that is premised on the moral equality of publicness; for example, decisions about caring and work roles that were previously taken for granted along gender lines. The media's increasingly important role in public connection has significantly widened the range of issues and events within the public domain, particularly those such as climate change that are not readily accessible to direct experience (Thompson 2005, p.49). In modern mediated societies attempts to strengthen public connections based solely on dialogical deliberation run into both practical problems of feasibility and moral problems around the inclusion of future generations and non-human nature (Thompson 1995, p.262). The quality of public connection needs to be assessed in the context of understandings of publicness that interpret the normative commitment to deliberative democracy of Habermas' account of the public sphere, these need not be dialogical (Thompson 1995, p.256). Looking at media connection specifically, Couldry et al. (2007, p.157) found that in the UK keeping up with the news was a widely shared social norm (80%), that far exceeded feeling that politics was relevant to your life (44%). However, the quality of news engagement was highly variable, creating virtuous cycles of engagement for the more engaged and vicious cycles for the less engaged (Couldry et al. 2007, p.170). Levels of news engagement were also subject to changing social contexts that could either support or undermine them, for example a change of job,

disrupting daily routines, might create or destroy time for news consumption (Couldry et al. 2007, p.180). My study seeks to provide another perspective on climate actions by placing them in the context of these wider trends in public connection.

In terms of public connection to climate change, in Western countries there has been near universal public awareness since the early 1990s (Leiserowitz 2007, p.3). However, studies have consistently found that climate change is perceived to be a distant threat which is more likely to affect people far away and/or in the future (Leiserowitz 2005, p.1437). Levels of concern or perceptions of the seriousness of climate change can vary significantly depending on how the question is phrased (Leiserowitz 2007, p.9), as well as various contextual factors, such as economic conditions (Capstick et al. 2015). One of the most common conceptions of public connection to climate change is the 'value-action gap' (Blake 1999). Indeed, a variety of individual and social factors constrain peoples' ability to translate awareness or concern about climate change into action (Whitmarsh et al. 2011, p.57). These highlight that public connection is more multi-faceted than a single gap between concern and action. Climate change consistently rates among peoples' lowest priorities when ranked against other major public issues (Rowson 2013, p.31). Also public concern often falls when concern about other higher profile issues, such as war or recession, rises (Scruggs & Benegal 2012). More generally Macnaghten (2003) found a disconnection between the storyline of 'global nature' that most people were familiar with from public discourse, and both their daily lives and their own (localised) experiences of the environment. Public connection to climate change is primarily as spectators to an elite debate, rather than as active participants (Brulle et al. 2012). Polling has found widespread support for policies to tackle climate change that do not impose direct costs on people, but support declines sharply for policies that would impose such costs (Leiserowitz 2007, p.27). Reflecting the low priority attached to climate change and a weak public connection that means that for most people climate change is ''a 'back burner' issue, a risk 'un-situated' in present circumstances: most laypeople perceive it as a threat (and therefore potential danger) to others, those more

vulnerable and/or future generations'' (Lorenzoni & Pidgeon 2006, p.87). Research needs to be aware that public opinion about climate change is formed in the context of wider public connection.

The depth of public understanding of the details of climate science has consistently been found to be limited (Reynolds et al. 2010). There is a tendency for people to use information short cuts, such as converting thematic links in media coverage of climate change into causal ones, for example believing the hole in the ozone layer is a cause of climate change; exacerbated by how rarely media coverage explains the basic science of climate change (Hargreaves et al. 2003). However, higher levels of scientific knowledge, can polarise levels of risk perception, when, as in the US context there are high levels of ideological polarisation. Those with a greater level of scientific literacy are better able to construct arguments compatible with their cultural worldview, which is a stronger predictor of their position in this context than their level of knowledge (Kahan et al. 2011). Low levels of scientific understanding are not unique to climate change; people cannot be experts on the science relevant to all public issues and instead usually rely on identifying what the expert position is (Kahan 2016, p.9). In this context, it has been suggested that raising awareness of the scientific consensus can increase public acceptance of climate change by helping the public to recognise this expert position (Lewandowsky et al. 2013). However, Kahan (2015, p.2) believes that the current contested nature of public discourse in the US about climate change forces people to choose between a connection based on collective-knowledge-acquisition and one based on cultural-identity-protection. Thus, social pressures will lead people to use the latter type of connection rendering further information about scientific consensus ineffectual. Public understanding of climate science does not take place solely at the personal level; public connection also plays an important role.

Public reception of climate discourse is far more complicated than gaining the 'correct' understanding of climate science; therefore, public connection must be understood as a more participative and transformative process than simply understanding the intended meaning of climate messages (Nerlich et al. 2010, p.106). The media provides a reservoir of different meanings and representations

of climate change from which the public can actively select, although this is not a free selection amongst equal options (Hansen 2011, p.20). The reception of media messages does not take place in one undifferentiated way either. Many of the public do not actively seek them out, but instead absorb them as peripheral information (Wolf & Moser 2011, p.561). The public also have their own existing knowledge frameworks (Whitmarsh et al. 2011, p.57), values and cultural worldviews (Wolf & Moser 2011, p.552) that will actively inform how they understand media content and integrate it with their existing identities (Thompson 1995, p.233).   Values have consistently been shown to be one of the strongest predictors of public engagement with climate change. Self-transcendent values (such as altruism and loyalty) are associated with acceptance of climate change and support for action, while self-enhancement values (such as ambition and hedonism) are associated with the reverse (Corner et al. 2014, p.413). Similarly, egalitarian and communitarian worldviews have been associated with greater concern about climate change, while individualistic and hierarchical worldviews lead to less concern (Corner et al. 2014, p. 414). There is a related strong partisan political divide over climate change between Democrats and Republicans in the US, left-right divides exist in other Western, particularly Anglophone, countries, including the UK, but levels of polarisation are not as strong (Stokes 2015), perhaps because climate change has not become such a crucial marker of political identity. The details of how public connection to climate change takes place have been understudied compared to the content of climate communications.

Another important element in public connection is a sense of efficacy that it is possible to do something about climate change. Roser-Renouf et al. (2014, p.174-176) found in the US that belief in collective efficacy to tackle climate change was low, both in general (just 6% felt society can and will do something about climate change), and in relation to specific actions (74% said that none of three common forms of political activism (contacting officials, donating time/money and attending rallies/meetings) would be effective for climate change). Such low levels of perceived efficacy are likely to significantly weaken public connection to climate change. Talk with others about climate change was the most important direct

predictor of climate activism (Roser-Renouf et al. 2014, p.175), reflecting the important role that public connection can play in strengthening perceptions of efficacy. The lack of public talk about climate change has been a common concern; 40% of the UK public have never talked about climate change, and the majority of conversations that do take place are brief (Rowson 2013, p.8). This avoidance of political talk can be framed as a pragmatic response to implicit limits on public talk Lorenzen (2014) found green activists talked about climate change strategically, focusing on individual lifestyle change and avoiding potentially polarising discussions of environmental politics, but it has negative effects on public connection. This relationship between public connection and perceptions of climate actions efficacy is something my study will explore further.

This link between efficacy and public talk relates to wider questions about the role of public connection in generating public action. Shaw et al. (2015) found that expert participants in the Climate Change Act rarely saw a role for public input in climate policy debate, often on the basis of avoiding angering public opinion, which, like the media polling described above, they conceptualised as unengaged and hypocritical. In the context of climate change, Dietz et al. (2009) found that taking part in deliberation increased the willingness of people to pay for emissions reduction policies. Similarly, Hobson and Niemeyer (2011, p.966) found that taking part in deliberative forums changed people's views on climate change, finding afterwards 'less scepticism, more desire for action, and a greater willingness to act'. However, these specially constructed deliberative exercises can tend to be structured in a top-down manner restricting the ability of participants to actively contribute to alternative framings of climate change as a public issue (Blue & Medlock 2014, p.575). Even when forums are more open to participant reframing of climate change, people can become frustrated afterwards when they find there are limited opportunities to pursue action on the basis of their new understandings of climate change (Hobson & Niemeyer 2011, p.968). These limitations highlight embedding deliberation in the context of public connection is necessary to provide opportunities for action. Public connection is made up of civic practices (how and when issues can be talked about in public), which create, or not, the contexts for

public deliberation that are available in civic society (Eliasoph 1998, p.22). Questions of how public connection affects the types of climate actions deliberated about in public discourse have received relatively little attention.

Public connection to climate change appears to be low due to both limited public attention and limited opportunities for meaningful deliberation. By examining public connection and the civic practices that constitute it, this study aims to contribute to building a more complete picture of the specific ways in which public connection to climate change takes place, or not, in public life.

2.5 Advertising and Public Relations

The rise of advertising and PR is one of the most prominent features of contemporary public discourse. Advertising can take a variety of forms, but this review will be concentrating on the most high profile form, national consumer advertising. PR techniques extend beyond the contents of individual paid for advertising messages to include management of which information does, or does not, enter public discourse (Hansen 2011, p.13). Recent years have seen a massive expansion in the range of organisations making significant use of PR (Davis 2002). Habermas' (1989, p.201) fears that the combined effect of these techniques would transform the public sphere into a stage for the display of power, rather than a forum for critical debate, are reflected in popular concerns about the dominance of spin in public life and the pervasive effects of advertising. There has been considerable debate about the extent to which advertising and PR are effective in terms of their persuasive intent. While many individual advertising campaigns fail, or have limited effects, in terms of their own objectives, collectively advertising clearly does more than just respond to the pre-existing needs of consumers or shift market share, not least because it is far more responsive to the profitable desires of wealthy consumers (Schudson 1984, pp.234-8). It also tends to define agents and actions in relation to decisions about individual consumption, making it more difficult to conceive of action in different ways (Myers 1994, p.168), creating a pervasive symbolic system that makes related values more available and easily

expressed (Schudson 1984, p.233), and encouraging identity construction through consumer choice (Dittmar 2007, p.199-200). These effects are particularly pronounced as people require little public connection to consume large volumes of advertising and PR due to their pervasiveness in contemporary media.

The increasing use of PR gives a distinct advantage to well-resourced government and corporate PR machines, although it is possible for smaller organisations to use PR techniques to influence public discourse (Greenberg et al. 2011, p.76). The widespread adoption of PR techniques also threatens Habermas' normative ideal, as communicators may pursue strategic priorities and promote their own interests at the expense of reciprocity and open dialogue (Greenberg et al. 2011, p.69). However, there are ways in which PR can potentially contribute to a democratic public discourse. Public discourse requires multiple voices and ideas to be heard, which will not simply emerge spontaneously; advocacy can play an important part in publicising these (Sommerfeldt 2013, p.281). At its best PR can, through this type of advocacy, play an important part in building social capital in civil society by bringing together groups to participate in public discourse (Sommerfeldt 2013, p.287). PR can serve an important role in the transmission of ideas and debates, assisting in the wide-scale public participation necessary for public discourse's legitimacy (Edwards 2016, p.70). In this context, Thompson's (1995) idea of mediated public visibility is useful, PR is part of the struggle for visibility in public discourse in which dialogical standards are less relevant. However, whether or not the ways the struggle for mediated visibility takes place through PR are supportive or damaging to democratic public discourse still needs to be analysed critically. The risk of PR being an exercise in selfish advocacy, dominated by powerful interests, that undermines the democratic quality of public discourse is real and substantial (Edwards 2016, p.63), but there is also a legitimate role for advocacy in bringing issues into public discourse. My study will explore the extent to which the advertising and PR in my media sample fulfils this advocacy role by providing a range of voices and encourages public deliberation.

Many of these debates around advertising and PR have also been applied to the environment and climate change. With both an expanding market for green

products and increasing public pressure for companies to behave responsibly, Greenwash, making misleading environmental claims in advertising, has been much analysed (Futerra 2008, TerraChoice 2010, Baum 2012) and the public have become increasingly sceptical about environmental claims in advertising (Finisterra do Paço & Reis 2012). While such misleading advertising clearly has negative impacts for people's trust in environmental claims, Christenson et al. (2013) suggest that even when corporate actors do not live up to their environmental claims, such aspirational talk can in some cases be part of future change by normalising environmental concern within the organisation and beyond. There is evidence that levels of Greenwash fall over time in industries where the public prominence of environmental issues rises. However, this could also be the result of companies becoming more aware about being caught in obvious lies and/or improved environmental regulation at the industry level (Baum 2012). The long history of fossil fuel companies funding PR campaigns to create doubt about climate science has been well documented (Oreskes & Conway 2010). The tactics used have mirrored other major campaigns, such as the denial of evidence on smoking causing cancer, and represent PR at its most damaging to public discourse.

The potential for advertising techniques to be used to promote action on climate change has been much discussed. Even if advertising is free of Greenwash there are still concerns about its role in promoting public action: firstly, like advertising generally, it only promotes one type of action, individual consumer choices, which cannot on their own address wider structural constraints on climate actions; and secondly, that it creates a green market niche, leaving the majority of products outside of green standards (Rex & Baumann 2007). Social marketing techniques have been adopted to promote a range of climate actions. For instance, communications have cued people to adopt pro-environmental choices as a personal norm, for example cycling to work (Cornelissen et al. 2008). Consumer research had been used to understand the characteristics of targeted behaviours and the barriers to changing them, for example providing residents with gauges to avoid over watering gardens (McKenzie-Mohr 2000). Critics have argued social marketing approaches are not well suited to engaging people across a wider range

of behaviours, due to their limited ability to promote systemic changes, and their tendency to promote a set of extrinsic, self-enhancing values that mitigate against environmental actions, rather than self-transcending values which may be more relevant to environmental action and tend to be absent from most advertising (Corner & Randall 2011). Similarly, market segmentation and identity-based techniques have been criticised for obscuring the potential for larger scale social changes (Brulle 2010, pp.83-4).   These debates about the efficacy of advertising and PR in encouraging climate actions are an important context to my study's focus on how climate actions are constructed as public actions.

How corporate and governmental advertising and PR represent climate change reveals a lot about how power operates in public discourse. This communication takes place in the context of an increasingly established consensus about climate change in public discourse (distinct from scientific and political consensuses); that climate change is a real and significant problem, caused by humans and is solvable by human action (Ereaut & Segnit 2007, p.9). In this context it is increasingly unacceptable for companies to publicly deny the reality of climate change. Even major oil companies, who have been amongst the most active opponents of this position, are increasingly reluctant to be associated with climate denial, either directly or through funding think tanks (Greenberg 2011, p.71). This is particularly true of publicly traded energy companies. However, energy companies in private ownership (particularly common in the emerging fracking sector) are less inhibited by this consensus, and continue to provide substantial funding for both think tanks and politicians who take non-consensus positions on climate change (Lichtblau & Confessore 2015). A large majority of corporate and governmental organisations do operate within this consensus; however, there is still significant scope for variation in their positions. Svodoba (2011) found that major corporate communicators messaging responded to major climate events and shifts in public opinion towards consensus, rather than leading them. Within their messaging they tended to avoid using terms such as 'carbon' or 'climate change', preferring safer alternatives like 'clean' and 'efficient'. Similarly, Hansen and Machin (2008) looking at visual representation concluded corporate PR abstracted representations of the

climate from specific environments and recontextualised them to suit the requirements of corporate branding. Government PR efforts appear to often be wary of being accused of telling people how to live their lives (Ockwell et al. 2009, p.313) and/or being caught up in political controversies such as the *Act on CO$_2$* campaign, which resulted in media controversy and the banning of two adverts for over-stating scientific certainty about extreme weather events (BBC 2010). High profile politicians, such as David Miliband, have made appeals for greater public pressure for climate action to open up space for them to act (Hale 2010, p.259); suggesting that even within the climate consensus in public discourse there are still significant limitations on what types of actions are discussed.

The rise of a new green social movement since the 1960s has been closely linked with the rise of public visibility and the use of media events in advocacy, from the first Earth Day in 1970 and the Earth Rise image onwards, by a new wave of environmental organisations, such as Greenpeace and Friends of the Earth (Doyle 2007). In part, these tactics were a necessity for a movement lacking the contacts necessary for an insider campaign focused on lobbying key decision-makers, but they also reflected recognition of the importance of media coverage in bringing their unfamiliar claims to a wider public audience (Hansen 1993, p150). Environmental NGOs have been remarkably successful in establishing themselves as trusted information sources, both for media organisations seeking expert comment (Hansen 1993, p.164), and for the general public on climate change (Lorenzoni & Pidgeon 2006, p.86), notwithstanding their clear advocacy role. NGOs have recognised the importance of visual communication to environmental claim-making, and the possibility of critique through spectacle (DeLuca & Peeples 2002, p.144). However, gaining media attention for these events remains an ongoing struggle for NGOs; media organisations want new angles for compelling content, but are also critical of events they deem too obviously stage-managed to provide this type of content (Lester 2010, p.118). The increasing professionalisation of larger environmental NGOs has also led to accusations from others within the wider movement that they are adopting too many of the PR tactics of corporate and government communicators, with all their negative consequences for public

discourse and democracy (Lester 2010, p.113). The inclusion of corporate, government and NGO communicators in my media sample will enable me to further explore their role in the contest for public visibility of climate change.

More broadly, the media system as a whole is profoundly influenced by advertising and PR, in ways that are poor fits with significant elements of public discourse about climate change. The media's current model of production has rapid obsolescence of its products, both hardware and content, built in to it. It also plays a significant role in pushing similar consumerist business models in other industries through advertising (Boyce & Lewis 2009). As a result, the media promotes a particular type of materialism, which actually places little value on people's existing material goods, actively discouraging their repair or reuse, and encouraging their replacement with new possessions at ever increasing speed (Lewis 2013). This reflects a long-term reliance on advertising to fund much of the modern media system. In addition, the transition to digital media has led to ongoing upheavals in advertising revenues, contributing to increasing reliance in many parts of the media on the information subsidy provided by PR, with the advantages to corporate and government communicators in public discourse that this creates (Lewis et al. 2008). Despite the popular perception of post-industrial dematerialisation associated with the media, its direct environmental impacts are substantial and growing (Maxwell & Miller 2012, p.4-5). These are powerful structural forces in contemporary media that are strongly at odds with a low carbon society.

There is a legitimate advocacy role for advertising and PR in promoting the public visibility of climate change in public discourse. However, there are also serious concerns about the extent to which many publicity tactics undermine the normative deliberative standards of public discourse and reflect the structural dominance of an economic model that is contradictory to a low carbon society. This study examines how these tensions play out in the case of the specific public actions advocated in a range of publicity material.

2.6 Summary and Research Questions

The approach of my study is based on the importance of understanding climate actions as public actions, drawing on the key concepts developed in this literature review (summarised in table 2.1). Public discourse and public connection may well play a relatively small role in the overall rate of adoption of some specific climate actions, including some of the private domain household actions most commonly associated by the public with climate change, for which private motivations are often more important than public ones. From the wider perspective of a societal response to climate change, public discourse appears far more important. It is unlikely there will be a simple direct relationship from increased public connection to climate change, to increased intent to act, to greater total impact of all climate actions. However, it is likely that stronger public connection to climate change is necessary for the creation through public discourse of public opinion that legitimises transition towards a low carbon society. While clearly not all climate actions or impacts can be explained at this level, it seems likely that a society with greater public connection to climate change will take more climate actions everything else being equal. Not only through public sphere actions and policy support for which public intent is most directly relevant, but also by creating the conditions that support taking private sphere actions where intent is much less directly relevant. It is also important from a normative perspective that these transitions have public support.

Table 2.1 Summary of Key Concepts

Key Concepts	Definition	Relevance to study
Public Issue	Public issues are recognised as being of common concern for society, as opposed to private issues that affect only individuals and/or close personal acquaintances	Situates climate change in the context of other public issues
Public Actions	Public actions are recognised as potential responses to public issues. For example there is widespread awareness that energy saving is seen as a	Explores how climate actions are constructed as public actions and places climate actions in the context of wider

Key Concepts	Definition	Relevance to study
	potential public action in response to climate change, even amongst people who take energy saving actions for other non-public reasons and/or do not think climate change requires public action.	trends in public action.
Public Discourse	Discourse through which public issues are identified and deliberated based on a normative commitment to democracy. Climate actions become publicly visible and are legitimised (or not) through public discourse.	Explores the public discourse about climate actions; which actions become visible and how they are legitimised.
Advertising and Public Relations	Prominent, action oriented, element of contemporary public discourse. Can potentially play important advocacy role, publicising a range of positions; but can also allow powerful actors to dominate undermining the deliberative function of public discourse.	Use advertising and PR as case study of public discourse about climate actions.
Public Connection	Public connection measures the extent of people's attention to, and participation in, public discourse. The quality and quantity of connection can vary widely.	Explores interviewees' public connection, both to climate change and more generally.
Civic Practices	Practices through which public connection to public discourse take place, such as reading a newspaper or taking part in political discussions.	Relates wider civic practices to participation in public discourse about climate change.
Public Opinion	Public opinion legitimises actions and policies by demonstrating support for them. That public opinion is formed through public discourse in an inclusive and transparent way is the normative basis for its legitimacy.	Study concerned with both these elements of legitimacy: (i) how climate actions are legitimised through public discourse; (ii) how public connection legitimises public discourse about climate change.

Representations of, and public discourse on, climate actions have been under studied compared to climate science and the negative impacts of climate change. Most research on climate actions has focused on factors that influence the uptake of specific actions, and less attention has been paid to the role representations of these actions play in the construction of climate change in public discourse. One of the aims of this study, therefore, is to build a picture of the public discourse around these climate actions, by analysing a sample of the climate change sections of the websites of communicators from a range of sectors. The sample was chosen because of both the websites' action-focused messages, and the increasingly important role that advertising and PR play in public discourse – in particular, struggles for visibility in public discourse – and their contribution to the legitimacy of public actions through the formation of public opinion. There are also serious concerns that advertising and PR are undermining the principles of deliberative democracy. In this context, the legitimacy of public opinion is not measured against an objective yardstick of public understanding, but by the extent and quality of public connection to climate change. This is another gap that this study seeks to address; little attention has been paid to the details of public connection to climate change, and in particular the opportunities for deliberation and participation. The study also places people's climate connection in the context of their wider public connection. Therefore, the public interview phase of the project serves two purposes: firstly, further investigation of the discourse about public actions identified in the media sample, and secondly, description of people's public connection to climate discourse as a whole.

My study has four main research questions:

What types of climate actions are most common in advertising and public discourse?

What role do these actions play in the construction of climate change as a public issue?

What forms do public connection to climate change take?

How are these related to wider forms of public connection?

The details of my methodological approach to answering these questions through the two research phases are elaborated in the next chapter.

3 Methodology

3.1 Methodological Approach

The previous chapter concentrated on the public element of public discourse, and its normative function in informing deliberation; we now focus on discourse, in order to outline the discursive methodological approach of this study. Discourse makes possible the normative function of public discourse because it

> *'construct(s) meaning and relationships, helping define common sense and legitimate knowledge. Each discourse rests on assumptions, judgements and contentions that provide the basic terms for analysis, debates, agreements, and disagreements. If such shared terms did not exist, it would be hard to imagine problem-solving in this area at all, as we would have continually to return to first principles. So discourses both enable and constrain communication.'* (Dryzek 2013, p.9-10)

Discourses make public deliberation possible by providing shared linguistic regularities that people can use in order to make climate change meaningful. Different discourses can provide different ways of talking about climate change, as a result of being based on different sets of concepts and ontologies. So the action discourse found in the advertising sample is just one discourse within public discourse about climate change; another is the causation discourse based around climate science. Discourses are not rigid meaning-making devices; multiple positions can be adopted within the overall logic of a discourse – for example, in this study the various linguistic repertoires (defined below) found within the action discourse. In order for a climate discourse to be part of public discourse it needs to include an element of public deliberation. Importantly this highlights that language is used by people to do things, such as persuading others to take action (Potter & Wetherell 1987, p.32) and therefore discourses are not neutral ways of talking, but are used to justify and legitimate different courses of action.

Furthermore, discourses are tied up with wider power relationships and societal structures, 'whole non-discursive field(s) of practices, appropriations, interests and desires' (Foucault 1972, p.69). Public connection involves the social practices through which public discourse takes place; the study is not only interested in the content of public discourse but when and how it takes place, particularly in relation to opportunities for public deliberation and action. Importantly, these practices do not simply provide a neutral forum for public discourse, they are part of the discourse, and they will have significant impacts on texts, and vice versa (Fairclough 1992, p.72-3). My study attempts to situate public discourse about climate change in the wider context of people's involvement in the practices of democracy through the public interview phase. The approach of my study is to take common public actions to tackle climate change as the starting point for analysing both the construction of climate change in public discourse, and wider public connection.

My study has two main research phases, a media phase and a public phase. The media phase was carried out first so that the findings could inform the public phase, particularly the identification of the linguistic repertoires used to describe climate actions, with the public phase exploring reception of these repertoires. The methodological approach of both phases can be described as 'qualitative dominant mixed methods' (Johnson et al 2007, p.124). The media phase used an advertising based sample to ensure that the content would be focused on promoting climate actions and include a range of linguistic and visual representations of these actions. Quantitative coding approaches place the emphasis for reliability on repeatability, while qualitative approaches which my study, particularly in the public phase, relies more on, emphasise trustworthiness and transparency. Discursive content analysis was chosen as an efficient method for systematically analysing a large body of content of this type (Krippendorff 2004, p.41). When considering the validity and reliability of coding Potter and Levine-Donnerstein (1999, p.261) identified three types of content to be coded (manifest, latent and projective). The content coded in my study was largely of two types, either manifest, easily observable surface content (such as word counts) or latent, requiring pattern recognition (for example presenter dress code). In the case of manifest content the criteria used are largely

objective, while latent content requires criteria set by experts. The criteria for latent content were largely drawn from previous studies in a number of different areas (including climate actions, public actions and environmental advertising) that had established the validity of these coding criteria, and apply them together in this new context. While the use of established codes precludes the development of new codes during the analysis in response to data, it also reduces the potential risks to reliability caused by the researcher carrying out coding alone. Systematically analysing these representations in this way built a picture of how climate actions are constructed in public discourse, which could be investigated further in the public interviews.

All codes were applied at the level of the website as a whole, so one instance of a particular form of action or type of representation within a website was sufficient for that feature to be coded as present. This meant that as the coder I did not need to precisely code every instance of an action or representation within each website, instead, the aim of the coding was to capture the existence of each element within the website as a whole. In most cases the codes were mutually inclusive, for example, various forms of action could be present in the same website, meaning it was not necessary for me as the coder to resolve more ambiguous cases. In a few cases coding was mutually exclusive, usually in cases requiring the identification of the primary type of content in the website as a whole.

A central part of the media phase was the identification and description of the main linguistic repertoires used within the advertising sample discourse to frame these climate actions. Ereaut & Segnit (2007, p.5) describe linguistic repertoires as

> *'routinely used systems of language for describing and evaluating actions, events and people (…) [they] are a mix of content (such as 'typical' topics or lines of argument) and form (characteristic use of grammatical features like tense and voice and specific choice of lexicon). (…) Repertoires are not merely registers but (…) different ways of making sense of the world (…) they are frameworks for inference and for making judgements.'*

Identifying these repertoires complements the detail about specific actions with a sense of the most common overarching narratives about climate actions within public discourse. These repertoires are all part of a common discourse, highlighting and emphasising different elements of that discourse in order to construct their own accounts of climate change. In contrast to the rest of the content analysis, this involved the third type of content for coding, projective, involving significantly more interpretation by the analyst to produce the different repertoires. In this case the linguistic repertoires identified by Ereaut and Segnit (2007) were selected as the starting point for analysis, due to the similarities with their media sample and the focus on action in the repertoires they identified. Using a large media sample enabled detailed description of changes to the most common repertoires and the emergence of new repertoires.

The second, public interview, phase explored both (i) public connection to climate change and (ii) the wider context of media use and public engagement in which this connection takes place. The main element of this phase was semi-structured interviews with 23 members of the public, recruited to provide a diverse sample. Interviewees also self-completed a brief questionnaire and took part in a sorting exercise based on the linguistic repertoires, arranging the repertoires by criteria of their own choosing. Although some quantitative information was gathered about levels of media use and public connection via the questionnaire, in order to help build a picture of each interviewee's public connection, the focus was not on building a representative picture of public connection, which would require a large-scale questionnaire, but on exploring the detail of how public connection to climate change takes place. In particular, interviews allow the researcher to be open to different forms of public connection, rather than pre-defining the forms of participation that people may be involved in (Couldry et al. 2007, p.44). The level of depth provided by interviews can help reveal the detail of the interplay between the discourse about climate actions, media usage and wider public connection.

The analysis of the interviews made use of some of the codes used in the media phase in order to facilitate comparisons, particularly around types of public action, although many of these codes were not applicable to the interview (for example

types of visual representations of nature). The main analytic strategy was more discursive, with text being coded inclusively to build up bodies of instances of talk about topics for analysis, rather than counting instances of specific types of content (Potter & Wetherell 1987, p.167). The validity of this analysis, therefore, rests on the coherence of the analytic account of this discourse. The questionnaires provide quantitative reference points which can help to ensure that features identified by the analysts are meaningful to the interviewees (Potter & Wetherell 1987, p.170) and facilitate comparisons between interviewees. The sorting exercise was based on five sheets of indicative quotations and images from the media phase, corresponding to the five most common linguistic repertoires in the media sample. Carrying out a sort meant that as well as exploring interviewees' familiarity with, and impressions of, the repertoires individually, the similarities and differences between the repertoires could be explored according to the interviewees' own subjective criteria treating each repertoire as part of a discourse, rather than in isolation. It was decided to present the quotes and images as repertoires, rather than individually in a Q-methodology type sort that would require a more systematically constructed concourse of statements (Dryzek & Berejikian 1993, p.51), reflecting the focus on interviewees' understandings of the repertoires as a whole. This approach also helps to avoid over reliance on the analyst's own interpretations of the meanings of these repertoires.

Table 3.1 Summary of Research Phases

Research Phase	Details of sample	Data Analysis Methods
Media Phase	55 organisational websites divided into 4 clusters (14 Mobile, 19 Energy, 9 Government, 13 NGO)	Discursive content analysis of websites using codes drawn from existing literature (chapter 4)
		Identification of linguistic repertoires developed from Ereaut & Segnit (2007) (chapter 5)
Public Phase	23 semi-structured public interviews and self-completion questionnaires	Qualitative analysis of emerging themes within interview topics, supplemented with quantitative responses from

Research Phase	Details of sample	Data Analysis Methods
		questionnaires (chapters 6 and 7)
		Conceptual sort of indicative linguistic repertoire sheets developed in media phase (chapter 8)

3.2 Media Phase

The media sample included the climate sections of websites from a cross-section of 55 government, corporate and non-governmental organisations. The main objectives of this phase included:

- Identifying the types of climate actions promoted in the websites and the reasons given for taking them, how these varied, or not, between different communicators, and some of the factors behind these differences.
- Examining how these actions contributed to the framing of climate change as a public issue.
- Identifying the most common linguistic repertoires within the sample and how the common features identified in the content analysis were combined to create them.

3.2.1 Media Sample Details

Four clusters of communicators were chosen: energy, mobile phones, governmental and non-governmental organisations (NGO), including both mainstream and green organisations within each cluster, in order to facilitate comparison both within, and between, groups of similar communicators. Two corporate sectors were included, one closely associated with climate emissions by the public (energy) and therefore likely to have a well-developed climate discourse, and one less publicly associated with climate change (mobile phones) and consequently likely to have a less developed climate discourse. The sample is not intended to be representative of either climate advertising/PR as a whole, or levels

of public exposure to these messages, as the focus of this study is on in-depth exploration of how public actions are used to make climate change meaningful.

The media sample was constructed from the climate change/environmental sections of communicators' organisational websites. The communicators sampled in each cluster were chosen by a snowballing methodology, starting from the most prominent communicators in each sector, and then working out from them to identify the wider network of communicators in each sector's climate discourse. These include partners they linked to, niche organisations specialising in these areas, secondary guidance and advice providers, and also communicators providing alternative perspectives on the sector's climate actions. The samples were not intended to be exhaustive of all the communicators within the sector discourse, but were constructed to include a range of communicators that reflect the variety of different positions found within that sector.

Organisational websites were chosen for the sample as a far larger proportion of organisations have a website than will be producing relevant paid-for advertising in other media at any one time. Also as these websites are more stable over time, they are likely to more closely reflect core organisational messaging about climate change than any particular marketing campaign. To facilitate comparisons between websites that varied significantly in both form and content, the sample included two elements of each website for analysis. Firstly, any climate or environmental content on the primary home page(s), as this section of the website reflects the communicator's core messaging and the extent to which climate change is part of this. Secondly, the dedicated climate or environmental section of the website. Overlap between these core and environmental sections varied from complete overlap in some environmental organisations to none at all in some other websites. Although the format and content of the websites varied widely, a pilot study demonstrated that it was straightforward to identify these sections in a range of different websites. During the pilot study two social media platforms from each communicator were also included (Facebook and Twitter); however, the vast majority of climate related posts linked back to content on the communicators own website. Social media, therefore, were not included within the sample. Analysing

these two elements of organisational websites both focused the study and made it possible to make meaningful comparisons across different communicators and sectors.

It is important for my study that the websites are aimed at the general public, rather than providing more specialist information targeted at a pro-environmental niche audience. The environment is a common theme in this type of corporate advertising and PR that seeks to complement organisation's self-presentation; the greater the resources available to the organisation the more emphasis they place on corporate image building relative to specific informational content (Pollach 2005). The content of the sample reflected this; although the actual readership of much of this content may well be fairly low, for my study the important factor is that it was clearly written for a general audience.

3.2.2 Overview of Sample

3.2.2.1 Mobile Phone Sample

The choice of mobile phones as the corporate sector less associated in public discourse with climate change was informed by their high public visibility that has made them emblematic of the growth of both consumer electronics and digital media. They are closely associated with ideas about a new clean dematerialised economy, but awareness is increasing of the hidden scale of the material processes and impacts of the digital economy. The embedded emissions from the manufacture of mobile phones are typically three times the emissions from a device's life-time usage (GSMA 2009, p.10). The increasing trend towards planned obsolescence, a central element of many companies marketing strategies, further increases these embedded emissions. Also heavily marketed is switching to substantially more energy intensive network services such as 3/4G and network infrastructure, rather than the use and manufacture of devices, accounts for a large majority of the sector's total emissions (GSMA 2009, p.12). The increasing centrality of mobile phones to the mediatisation of contemporary public discourse

gives them additional relevance to this study. Suggestions that mobile and smart technology can make the climate impacts of various actions more publicly visible by providing information about emissions (for example of home energy use or transport choices) and in doing so could create new social norms and spillover effects were reflected in several communicators websites. The communicators included in the mobile phone sample are show in Table 3.2:

Table 3.2 Mobile Phone Communicators

Communi-cator Type	Name	Organisation Description	Website Description
Four leading UK network operators by market share (>10%) (Statista 2015a). All large multi-nationals	EE	Market Share 33%	Limited amount of content, largely generic corporate environmental performance information, but integrated visually and linguistically into EE's informal corporate branding
	O2	Market Share 21%	Substantial amount of content through 'Think Big' branding, both promoting life cycle analysis via partnership with Forum for Future, including examples of personal commitment to this partnership from senior staff; and also support for community environmental initiatives with (younger) customers
	Vodafone	Market Share 18%	Strong emphasis on environmental benefits of smart technology, framed using high-tech green corporate HQ as exemplar and professional commitment of senior management
	Three	Market Share 10%	Very small amount of generic corporate environmental compliance content
Five leading UK device	Samsung	Market Share 27%	Emphasis on being a good corporate global citizen,

Communi-cator Type	Name	Organisation Description	Website Description
providers by market share (>5%) (Statista 2015b). All large multi-nationals			places own corporate environmental performance in the context of international climate treaties
	Apple	Market Share 25%	Emphasis on attempts to green entire production life cycle, including focus on use of renewable technology at their main corporate facilities
	Nokia	Market Share 18%	'People and Planet' branding linking own corporate environmental actions with the benefits of mobile communications technology
	Sony	Market Share 7%	'GreenHeart' branding based on minimising environmental impacts across product lifecycle
	HTC	Market Share 5%	Small amount of content; generic environmental standards information and promotion of Green corporate HQ building
Device Recyclers. A common action suggested by market leaders	Envirofone	Youth oriented marketing emphasising individual financial benefits and, despite their name, disassociating themselves from the more worthy elements of environmentalism and recycling	In contrast to front page reflecting this marketing strategy website contains more traditional environmental content, including support for projects in Africa and guide to other providers of green products and services
	Rethink	Company provides corporate recycling for a range of electronic products (e.g. printer cartridges), but phones have	Emphasise partnering with a wide range of (mainly non-environmental) charities to organise fundraising recycling appeals. Website reflects historical focus on

Communi-cator Type	Name	Organisation Description	Website Description
		become their focus	businesses, but substantial amount of newer more informal content targeted at individual consumers
Green Alternatives. Products and services not commonly suggested by market leaders	Green Mobile	Virtual network provider, who offer a 'zero carbon service', refurbished phones and pay a percentage of all charges to green charities	Front page places emphasis on planting trees and work with three environmental charity partners. Facts about environmental damage caused by phones presented with no reference to structural causes
	Fairphone	Dutch social enterprise attempting to create a more ethical device for EU market, focus on greater transparency for consumers	Style of front page noticeably closer to large multi-nationals than the simple text pages of other green communicators, focusing on phone as desirable object. Beneath this there is detailed exploration of possible structural changes to the mobile industry
Green Campaign. Alternative perspective on industry	Make It Better (Friends of the Earth)	Campaign for better design of electronic consumer products to reduce their environmental impact	Make it Better branding uses informal style and humour, appeal premised on sharing audience desire for smart phone. Key information about environmental impacts presented. Two main focuses to site: (i) campaign materials people can use to lobby government and big companies and (ii) detailed case study of damage done by mining to Bangka Island, Indonesia

3.2.2.2 Energy Sample

The energy sector is central to public discourse about climate change in the UK and a series of government interventions have placed obligations to tackle climate change on energy companies. During the sampling period (August 2013-March 2014) these green obligations rose to the top of the wider public agenda as the opposition Labour party adopted issues such as the cost of living crisis and excessive corporate profits (BBC 2013). Rising domestic energy bills and the 'Big Six' energy suppliers, who dominate the UK domestic market following privatisation in the 1980s, became focal points for these wider issues. In turn, the 'Big Six' sought to focus attention on government imposed green charges, to divert criticism of their business practices (BBC 2013). As a result the contributions of different costs to domestic energy bills became a live political issue; with energy companies, newspapers and government all producing different graphics and breakdowns. As a result of this political pressure Prime Minister David Cameron was widely reported as wanting to 'get rid of all the green crap' (Mason 2013). This reflected that the Conservative Party increasingly adopting the same framing of environmental policies as the 'Big Six' as a clash between cost of living and the environment, enabling them to blame Labour for originally introducing these obligations. It also reflected increasing scepticism within the Conservative party about climate change and the environment more generally (Mason 2014a).

The Conservatives' coalition partners the Liberal Democrats proposed that the costs of ECO (Energy Company Obligation – an obligation for energy suppliers to fund home energy efficiency improvements) and the Green Deal (a scheme providing loans to individuals repaid via energy bills for home energy efficiency improvements) should be paid for through general taxation, allowing a reduction in energy bills. They argued that this funding arrangement would also be more progressive in terms of the fair distribution of costs across household incomes (Ross 2013). However, the coalition achieved the promised cut in domestic bills primarily through extending the ECO by two years, without increasing funding, an effective annual cut that the 'Big Six' promised to pass on to consumers (Mason 2014b). This high-profile controversy was largely absent from the climate change areas of the

'Big Six' websites, despite their public statements on the issue in many other media, but was prominent in the content of many other communicators in the sample.

Table 3.3 Energy Communicators

Communic-ator Type	Name	Organisation Description	Website Description
'Big Six' Energy Suppliers	British Gas EDF E.ON n.Power Scottish Power SSE	All the 'Big Six' companies provided very similar content, in a similar style; offering home energy advice, including regular small actions, one-off Green Deal improvements and home renewables. This appeared to be the default industry standard approach to climate communication. For four of the 'Big Six' (EDF, n.Power, Scottish Power and SSE) this was their main environmental content. The other two companies had alternative types of climate content that were much more integrated into their main marketing messages giving it greater visual appeal (more videos, high quality images). They also provided this standard content, but as secondary material. E.ON focused on making comparisons with neighbours to save money and energy using smart meters. British Gas strongly promoted green homes and lifestyles through a wide range of smart technology	
Green Energy Suppliers	Co-Operative Energy	Promises to provide power with less than half the average emissions of the national grid	Contrasts co-operative principles with the way the UK energy market currently works, promotes community energy as alternative
	Ecotricity	Emphasis on desire to transform UK power infrastructure, promises all profits spent on building more green capacity	Strong visual branding with green Union Jack and images of green technology, also using staff and particularly company founder. Promotes image of company as leader in creating 'Green Britain'
	Good Energy	100% renewable energy, focus on desire to reform how the UK electricity market works	Like Ecotricity presents self as leader in greening energy sector with focus on founder and account of company history, but very different branding focusing

Communic-ator Type	Name	Organisation Description	Website Description
			on ethical behaviour and transparency, leading to very different visuals of community action and domestic renewables
	Green Energy	Offer 100% renewable energy, focus on supporting small scale renewable installations and their promise to buy the power generated	Friendly informal language and visual branding, appeal based around well-made video case studies of renewable projects that supply their energy. Reflects focus on practical action and direct appeal to consumer to join in
	LoCo2 Energy	Place emphasis on renewable technology, including own generation capacity	Beneath front page promoting their tariffs, provides in-depth information about wide range of renewable energy sources and their own projects, presented in largely non-technical style but remarkably like public information provision rather than marketing
	OVO Energy	Offer range of plans depending on your level of commitment, emphasis on supporting consumers to do the right thing	Far lower level of detail provided about renewables than any of the other green companies, and do not make the same type of concerted effort to promote their own green credentials. Instead make direct common sense appeal that assumes people want to be green but are too busy to find out the details of energy industry
Community Renewables	Energy 4 All	Site supporting the establishment of renewable energy community co-operatives	Main appeal based on case studies of successful co-operatives. Detailed information provided about both renewable technology and the wider

Communic-ator Type	Name	Organisation Description	Website Description
			context of energy market and climate change. Little detail about organisation itself reflecting supporting role providing expert advice
	Trillion Fund	Site promoting crowd funding of renewable energy projects	Stronger branding with far more informal style than Energy 4 All, humorous approach to explaining economics of energy industry, including populist attacks on 'Big Six' and banks
Energy Advice and Policy	Centre for Alternative Technology	Research and education charity based in Machynlleth, Wales	Content focuses on case studies of home renewables and energy improvements. Places far more emphasis on technical details and agency of homeowner in devising schemes than other communicators' case studies. Emphasises expertise from own research and projects
	Co-Operative Community Energy	Campaign for clean energy run by the Co-operative (separate from Co-Operative Energy) focused on lobbying government to provide more support of community energy projects	Information about key campaign issues and how to get involved in lobbying provided in a relatively brief and informal style, underpinned by community action ethos
	Energy Savings Trust	Provides independent energy saving advice	Large amount of information provided, frequently in form of lists of actions framed in terms of saving energy and money. Highly factual style with very little visual interest, or wider contextual information

Communic-ator Type	Name	Organisation Description	Website Description
Home Smart Technology Providers	Honeywell	A leading provider of home heating products (radiators etcetera) moving into smart technology	Elements of site using aspirational photography and clean infographics, but still mixed with other elements that reflect technical information provision of previous communication style. Some of site organised around online Homezone product demonstration, but no clear overall framing of message
	Nest	Start-up consciously adopting marketing style of consumer technology companies like Apple	Fully developed front page demonstrating their product using the aspirational imagery and infographics style. Focus on lifestyle and the home, without significant green element, even the common energy saving message is secondary to the control, convenience and personalisation offered by smart tech. Nest sits outside the climate discourse to a greater extent than any other site in the sample

(Energy advice information found in 'Big Six' and Energy Savings Trust was also provided by the majority of the other communicators, although it was not as prominent an element of their messaging)

3.2.2.3 Government Sample

When the study took place there were several pages about revisions to the Green Deal in the UK government website. The tension over the Green Deal reflected wider tension between the coalition partners, the Conservatives and the Liberal Democrats. When he first became Conservative Party leader David Cameron famously visited the Arctic and 'hugged a husky', as part of rebranding the Conservatives as more centrist and electable (Randerson 2010). This strategy

included the incorporation of a tree into the conservative logo and introducing the slogan 'vote blue, go green'. However, there were now increasing signs of weakening Conservative commitment to being the 'greenest government ever'. Although the government remained committed to the central pillars of the cross-party climate consensus established during previous Labour governments – the 2008 Climate Change Act's legally binding targets, and pursuing ambitious targets in international climate change negotiations – its ability to deliver on these emissions reductions and wider green credentials were coming under increasing scrutiny (Harvey 2011). With Cameron facing pressure from the right both internally and from UKIP, rhetorical commitment to green issues was waning, including symbolically the Conservative tree changing from green to a Union Jack colour scheme and reducing in size (Gadd 2014). It was noticeable the only use of the phrase climate change in the UK government website section, which was not part of the title of the department, minister or related parliamentary committee, was part of a direct quotation from the then Climate Change Secretary, Liberal Democrat, Ed Davey. Additionally, the Conservatives had also made reducing government public relations and campaigns generally an electoral issue prior to the previous election, on the basis of both cost and ideological 'nanny state' concerns (Siddique 2010). This was strongly reflected in a simple and standardised web design approach across all departments, limiting the quantity and variety of material published.

In Wales, in contrast, the Labour government was pursuing a major new piece of environmental legislation, the Well Being of Future Generations Act 2015. The consensus on climate change was under much less strain, partly perhaps because responsibility for climate change was seen to rest primarily at the UK level. The Welsh Government has encouraged Local Authorities in Wales to promote sustainability, with ongoing targets for household recycling often driving communication efforts (Messenger 2016). The Welsh local authorities in this sample included a range of different population densities and areas with high concentrations of particular energy sources, as these were anticipated to be factors that might affect the framing of climate messages (Pidgeon et al. 2008).

Table 3.4 Government Communicators

Communica-tor Type	Name	Organisation Description	Website Description
UK Government	DECC (Department for Energy and Climate Change)	UK government department with primary responsibility for climate change	Strong emphasis on straight forward information provision, very little attempt at persuasion outside of press releases quoting ministers. Focus on government schemes such as Green Deal.
Welsh Government	Welsh Government	Welsh Government	Much more similar than DECC to sample as a whole both in style and register and in focus on renewables and individual actions. Also substantial content about how climate change may affect Wales. In complete contrast to DECC, heavy use of phrase climate change
	Wales Carbon Footprint	Dedicated Welsh Government site providing advice for individual and community actions	Focuses on the same civic actions as many other sites, but frames them more collectively in terms of both local community and Welsh national identity
Welsh Local Authority (Selected for spread of population types)	Cardiff	Urban	One Planet Cardiff branding reflects focus on city's climate impact, strong visual emphasis on transforming urban community living
	Bridgend	Mixed	Largely generic information provision about climate science and common climate actions. Lacks the type of place based framing created in the Cardiff Council website
	Monmouth-shire	Rural	Very limited amount of content, evidence of very early stages of climate action being framed as part of wider new local smart tech initiative
Welsh Local Authority (Selected for	Anglesey	Nuclear. Wylfa, the only active nuclear power plant in	'Energy Island' branding to promote new reactor the major focus. Mainly framed

Communica-tor Type	Name	Organisation Description	Website Description
high level of local energy source)		Wales, coming to the end of its operational life, replacement plant an active topic	in terms of local economic and community benefits, with climate change secondary at best.
	Neath Port Talbot	Renewables (primarily wind), one of the highest installed renewable capacities at time*	Little mention of renewables. Substantial amount of generic information about climate actions. Local framing focuses on landscape and outdoor leisure
	Rhondda Cynon Taff	Coal (historic), part of south Wales valleys coal mining area	'Love where you live' ties pride in local community and landscape to common civic actions. Coal industry not mentioned explicitly but implicit in the rhetoric and imagery around community identity and landscape

(*Powys the other high renewable capacity local authority did not have a climate change section at the time)

I also planned to include UK and Welsh political party websites within the sample, however at the time of sampling most did not have identifiable climate sections, so they were excluded due to this lack of material.

3.2.2.4 NGO Sample

The sample included UK green NGOs from across a range of communications strategies, from campaigning (involving more overtly political pressure on others to act) to consensus (proposing more collaborative incremental actions). High profile non-green NGOs were included to reflect the increasing prominence of climate change outside of the environmental sector. Some Welsh and local green NGOs were also included, but there was generally less material available at these levels. At the time of sampling renewables and practical actions happening now (at the individual or societal level) were common themes, but unlike in the other sectors, there was no clear dominant event or issue found across the sites. This may have been the result of green NGOs regrouping following the twin setbacks of increased

pressure on the UK political consensus and the failure of the 2009 Copenhagen Summit, both of which had been the focus of campaigning for a number of years.

Table 3.5 NGO Communicators

Communica-tor Type	Name	Organisation Description	Website Description
UK green NGOs (From campaigning to consensus strategy)	Greenpeace	Major international environmental campaigning organisation	Mix of specific campaigns and reporting, and in depth general information about climate change and energy sources. Images used contrast renewable technology and polluting technologies and companies
	Stop Climate Chaos	Coalition of UK environment and development NGOs, focused on political lobbying	Prominent images of campaigning and how people can get involved. Much of lobbying has positive focus on giving credit to those politicians who do the right thing. Focuses on how to take action, assuming people are convinced about climate change
	10:10	Grew out of successful documentary *Age of Stupid*, promotes practical individual action (initially a 10% reduction in personal carbon emissions in 2010) as starting point for wider changes	Strong emphasis on people working together and actions that are already happening, including lots of positive images. Uses informal style of listicles as alternative way of presenting both civic actions and policy actions. This means much less reliance on information provision or financial appeals, on the assumption that people want ideas for action rather than requiring persuasion
	Green Guide	Online and print directory of green lifestyle products and services	Focused on civic actions but also avoids the prototypical information and financially based tip list style. Instead, lifestyle appeal reflected in more eloquent, but personal, language and aspirational

Communica- tor Type	Name	Organisation Description	Website Description
			imagery. Lists lower down the site include more collective and/or political actions
	Climate Week	Run annual UK week to encourage people to organise, and take part in, local climate events	Lists of actions feature actions other people have already taken, rather than ideas for action. Numbers still feature heavily, but instead of potential individual cost or energy savings, they are numbers of people who have already taken part and numbers of total actions taken/impacts. This appeal to join in a successful movement is reflected in fun informal photos featuring 'ordinary people' and celebrity culture, and bright hand drawn style illustrations
	Start	Coalition of UK businesses facilitated by Prince of Wales Network to promote sustainable lifestyles	Lifestyle articles featuring mix of individual actions and actions taken by entrepreneurs and Start's large business partners. A much more informal and less overtly ethical style than Green Guide. Reflected in imagery which is aspirational but much more youthful and less middle class, and also includes elements of the more fun visual style of Climate Week.
	One Planet Home	Website by major UK DIY retailer B&Q with environmental charities BioRegional and WWF to promote sustainable living	Site organised around actions people can take at home as part of a greener lifestyle. Like other lifestyle websites avoids the proliferation of financial and energy saving numbers in describing actions. Uses informal illustration style branding to represent this lifestyle. Imagery focuses much more on objects rather than people compared to

Communica-tor Type	Name	Organisation Description	Website Description
			other sites, reflecting the site's commercial imperative
UK non-green NGOs	Oxfam	Major UK based development charity	Website focuses on persuading supporters why climate change is relevant to Oxfam's goals. Focuses on two issues: land ownership and disaster resilience. This is supported with familiar international development imagery, and appeals to take political action
	TUC (Trades Union Congress)	Federation of trade unions in England and Wales	As with Oxfam focus is persuading existing supporters that climate change is relevant to their work. Two elements to this: firstly, greening the economy as a whole; secondly, how and why trade union members can green their work place. The second is the focus of the majority of the content, which includes detailed information and case studies
	CBI (Confedera-tion of British Industries)	Leading UK business organisation	Main focus of site is setting out range of policies that CBI want adopted to promote green growth. Formal language and information provision style
Welsh Green NGO	Size of Wales	Charity encouraging people in Wales to take action on climate change by protecting an area of rainforest the size of Wales	Assumes pre-existing desire to act and makes an appeal based on collective Welsh identity. Supported by details of the specific forest protection projects being undertaken
Local Green NGO	Cardiff Transition	Cardiff branch of the Transition Network that encourages local communities to plan for a sustainable future	Home page provides information about transition movement approach, but majority of content is about actions taken by the Cardiff group. The basis of the appeal to take action is personal accounts by members of Cardiff Transition

Communica-tor Type	Name	Organisation Description	Website Description
	Green Valleys	Brecon Beacons National Park based community interest company that supports community carbon reduction projects	Like Cardiff Transition provides overarching description of a large-scale societal change, while majority of content focuses on specific projects they have undertaken. Images of group action and the landscape of the Beacons play important part in appeal

All websites were accessed between August 2013, the beginning of mobile phone sample as a pilot study, and March 2014.

3.2.3 Media Phase Analysis

This section details the codes used across six areas, which were frequently drawn from previous research.

Prominence and approach of climate messaging

The study included four measures of the amount of content on each website; page count, word count, video count and video length. The prominence of climate content was evaluated by assessing both the prominence of climate issues within the home page and the prominence of the climate/environment section within the website as a whole.

Two further categories were used to assess the overall approach of each website. The first, focusing on the website's objectives in communicating climate change, was developed by Banerjee et al (1995) to cover a wide range of green adverts both television and print, from profit and not for profit communicators.

Table 3.6 Campaign Objectives

	Types of objective
Campaign Objective	Promotion of a specific product, service or policy
	Promotion of corporate image
	Influence audience behaviour/actions
	Enlist audience support for communicator via membership or donation

The second looked at the types of appeals used to promote these objectives. These codes were drawn from Laskey et al's (1989) typology for classifying the message strategies used in TV advertising. The typology distinguishes between informational appeals, based on information provision, and transformational appeals, based on creating emotional associations, and then identifies several appeal types within each.

Table 3.7 Advertising Appeal Types

	Appeal Type	Appeal Type
Appeal	Informational	Comparative, focuses on explicit comparison with alternative brand(s) or product(s). '5% lower emissions than brand Y widget'
		Unique selling proposition, claims a specific unique attribute or benefit. 'The only zero carbon widget on the market'
		Testable, makes a verifiable claim, without claiming to be unique or making a comparison. 'Widget X emits only 10g of carbon per use'
		Hyperbole, makes exaggerated generalised claims. 'Probably the most environmentally friendly widget in the world'
	Transformational	User image, makes emotional association with the personality and lifestyle of the user. 'Today's environmentally conscious consumer uses Widget X'
		Use occasion, makes emotional association with the situation used in. 'When it's time to recycle, think Widget X'
		Brand image, makes emotional attachment to the brand personality. 'Widget X, the

		green widget'
		Generic, emotional appeal to generic action rather than specific brand. 'Love recycling'

While elements of more than one objective or appeal types may be present in a website, the most prominent objective and appeal was identified for each website.

Type of actions promoted

In line with the study rationale, actions were coded as forms of public action, rather than on the basis of impact or intent, using the typology of Ekman and Amna (2012). A key distinction is between political actions which pressure other actors (governmental, business etcetera) to act on a public issue, and civic actions which address public issues but do not involve pressuring others to change their actions or policies. Their full typology also included illegal forms of activism and active and passive forms of non-participation. However, these were not included in the coding as it was considered unlikely that they would feature in the sample, something the pilot study confirmed. Example(s) of climate actions for each category have been provided in *italics*.

Table 3.8 Public Actions

Civil participation		Political Participation	
Involvement (attention)	**Civic Engagement (action)**	**Formal Political Participation**	**Activism**
Individual Forms			
Personal interest in, and attentiveness to, politics and societal issues *Reading news coverage of climate change*	Activities based on personal interest in and attention to politics and societal issues *Household recycling, energy saving etcetera*	Electoral participation and contact activities *Contacting elected representatives about climate change*	Extra-parliamentary forms of participation (e.g. signing petitions, political consumption) *Signing petitions against environmental practices of a company*

Civil participation		Political Participation	
Involvement (attention)	Civic Engagement (action)	Formal Political Participation	Activism
Collective Forms			
A sense of belonging to a group or a collective with a distinct political profile or agenda *Viewing yourself and friends as type of people who 'do their bit for the environment'*	Voluntary work to improve conditions in the local community, for charity, or to help others (outside own family and circle of friends) *Taking part in community energy project*	Organized political participation: membership in conventional political parties, trade unions and organizations *Taking part in lobbying campaign organised by environmental NGO*	Loosely organized forms or network-based political participation: new social movements, demonstrations, strikes, and protests *Taking part in local protest group against fracking*

I anticipated that the large majority of actions in the sample would be individual civic engagement actions. Therefore, these actions were distinguished further using the typology developed by Whitmarsh and O'Neill (2010), which identified clusters of pro-environmental behaviours commonly taken together. Two categories from this typology were not included: political action, which is not a form of civic engagement, and flying, which is not a pro-environmental action. Indirect actions were added to capture more passive forms of support for pro-environmental organisations, such as subscription based membership, which do not involve either collective involvement in the organisation, or reach the level of political participation by directly pressuring someone else to act. As it was anticipated that many of these individual civic engagement actions would be widespread across the sample, a primary type of individual civic engagement action was identified for each communicator – based on which type of action was most heavily and prominently featured – in order to further distinguish between them.

Table 3.9 Individual Civic Engagement Actions

Individual Civic Engagement Action Type	Examples
Recycling/waste reduction	Kitchen composting, recycling, reuse/repair of items
Eco-shopping and eating	Purchasing environmentally friendly products, avoid eating meat, eat organic, locally grown, or in season food
Regular water and domestic energy conservation	Turn off lights not in use, turn off water when brushing teeth, shorter showers
One-off domestic energy conservation actions	Energy efficient home, energy efficient heating system, 'green' tariff
Eco-driving	Drive economically
Personal transport choices	Reduce journeys, car share, use public transport
Indirect actions	Donating or paying subscription to green organisations

Policies proposed by the communicators were also coded; distinguishing between supportive measures and those that impose restrictions, which polling has shown to be an important factor in policies public acceptability (Nisbet & Myers 2007, p.465).

These coding categories reflect the dominance of mitigation actions in both phases of the study, consistent with previous research (e.g. Whitmarsh 2009b). No adaptation actions were suggested in the media sample or mentioned during the interview. A small number of media communicators mentioned adaptation policies; none were mentioned in the interviews.

Representation of benefits and consequences of (in)action

The beneficiaries of action in the websites were coded (individual, family, community, nation, developing world, humanity, non-human nature, generic environment, the communicator and employees/organisation members) and also the types of benefits suggested (climate, environment, economic, moral, health, security, societal). The victims of inaction were coded using the same list as beneficiaries of action. The primary beneficiary, benefit and victims – based on overall prominence – were also identified for each website to aid analysis as it was anticipated many websites would include multiple types in each category.

Wider construction of message

The main corporate voice in each website was coded for its use of formal or informal language, and use of the first, second or third person. It was anticipated formal language would be more commonly used to persuade audiences of the credibility of the organisation and their actions, while informal language might be used to persuade people to take action, particularly given popular perceptions of climate issues being about telling people what they cannot do (Bashir et al. 2013). Similarly, the choice of first, second or third person language could be important for how the relationship between the communicator and the audience is constructed (Malone 2009).

The other communicators used to support the main corporate voice were also coded (scientist, environmentalist, celebrity, ordinary person, business person, rank and file organisation member, politician); and how the audience was framed (consumer, citizen, activist, local community member) ascribing to them a set of interests and motivations in relation to climate change.

Representations of climate change will tap into nature's long history as one of the most prominent and contested concepts in public discourse (Williams 1976). Images of nature in the websites were coded using the five main discourses of nature Hansen (2002) identified in UK television advertising.

Table 3.10 Visual Representations of Nature

Nature as…	Definition
intrinsically good	representing qualities such as fresh, pure and authentic
object of human mastery	a domesticated or tamed nature serving human purposes
a nice place to be	nature as enjoyable or pleasurable
a place for recreation	space for leisure
a space to be traversed	and/or an obstacle to be overcome between two locations

Representation of climate change

My analysis looked at whether or not, and how prominently, the terms 'climate change' and 'carbon' were included within the websites; as commercial advertisers often avoid using these more politically loaded terms even within their climate messaging (Svodoba 2011). Alternative terms used in titles for these sections were also coded (environment, green, sustainability, planet, recycling, smart, energy). These alternative terms are presumably perceived by communicators as less controversial and, therefore, more likely to encourage action.

The provision of information about three elements of climate change was also coded: (i) causal mechanisms, (ii) extent of scientific consensus and (iii) the scale of risk. This type of background context is often absent from news coverage of climate change (Hargreaves et al. 2003), but the less transient nature of these websites provides the opportunity to include more of this type of contextual information. Conversely, advertisers' desire to avoid controversy and focus on promoting action might work against its inclusion. While this type of information provision has been shown to be insufficient on its own to drive public action (Corner et al. 2012), it may still play a role in shaping discourse. In particular, it may provide a broader overview of climate change within which to assess the potential need for and/or effectiveness of climate actions (Shi et al. 2016). Given this, the use of four types of comparison which could assist people in assessing the relative impact of actions were coded: (i) impact relative to other action(s), (ii) impact compared to overall impact of the sector, (iii) impact of sector compared to other sectors and (iv) impact relative to overall environmental limits.

Linguistic Repertoires

Finally, I also analysed the framing of climate change as a whole within the advertising sample discourse, based on the linguistic repertoires found in the UK media by Ereaut and Segnit (2007). While many of the other elements of my study's coding focuses on specific elements of the communicators' climate messaging, i.e. actions, benefits, representations of nature etcetera, it was important to also include a way of looking at communicators overall framing of

climate change. I was keen to base this analysis of the construction of climate change on a scheme in the existing literature, both, as with the use of existing coding schemes in other areas, to increase the reliability of my own coding, and also to avoid the proliferation of overlapping classification systems found in other areas of climate communication studies, for example, in audience segmentation studies. Ereaut & Segnit's (2007) linguistic repertoires were selected to provide this basis because of the focus of their work on public action and inclusion of a diverse range of non-news media and communicators, both important elements of my study which are rare in the wider literature. However, it should be noted that Ereaut and Segnit did not report their studies as an academic paper, so there are substantial limitations in how they reported both the details of their sampling/methodology of their study and the analysis from which they produced their linguistic repertoires. Despite these limitations I felt that their linguistic repertoires provided the best available starting basis in the existing literature from which to develop the analysis of framing of climate change as an issue for public action within the sample material. Given these limitations, and the high probability these framings may have changed given the length of time since this study, the most prominent linguistic repertoires were elaborated in greater detail through my analysis.

Most of the repertoires Ereaut and Segnit (2007) identified were part of a discursive consensus that climate change is real, human-caused and solvable by human action. They did also identify a number of, increasingly marginal, non-consensus (sceptical) repertoires; but unsurprisingly, given the nature of the media sample, none of these were present in my study. The consensus repertoires were divided into two main types, alarm repertoires focusing on the threat, and resolve repertoires emphasising actions. All the consensus repertoires identified by Ereaut and Segnit were present in the media sample. Three distinct new repertoires were identified within the sample, using the same inductive identification process based on a 'mix of content (such as 'typical' topics or lines of argument) and form (characteristic use of grammatical features like tense and voice and specific choice of lexicon)' (Ereaut & Segnit 2007, p.5). These three new repertoires were 'radical

action' (based on a repertoire identified by Höppner (2010) in UK press coverage), 'green lifestyle' and 'action already happening'; all three fitted in the resolve consensus category.

Table 3.11 Linguistic Repertoires

Repertoire Type	Repertoire	Illustrative Phrase
Alarm	Alarmism	'we should be scared stiff'
	Conservative Alarm	'not England!' threat to traditional nature and heritage
	Sober Alarm	'it's serious but let's keep our cool'
Resolve	Action Already Happening	'the transition (to a low-carbon society) is underway'
	David and Goliath	'a small group can change the world'
	Establishment Techno-optimism	'relax, we've got it all under control'
	Green Lifestyle	'think green, act now'
	Non-establishment Techno-optimism	'developing innovative new technologies can provide the solutions'
	Radical Action	'radical shifts, living and working entirely differently'
	Reluctant Belief	'we will believe it if we have to'
	Small Actions	'I must do my bit for the planet'

The five most common repertoires, the only ones to appear in all four sectors and be used by at least five communicators as their primary repertoire, were analysed in greater depth; identifying the most common linguistic and visual features and how these were used to construct climate change. A cross-cutting analysis was also carried out to compare the different repertoires, including the types of actions, benefits and consequences of inaction associated with them and the extent to which different repertoires co-occurred within the discourse.

3.3 Public Phase

This phase involved qualitative semi-structured interviews exploring people's general public connection including media usage, and their views and actions on climate change. The main objectives of these interviews were to:

- Investigate the climate actions that people take and/or are familiar with, enabling comparisons with the media analysis.
- Explore people's connection to climate change, both the media content and sources they are familiar with, and the wider context this takes place in, such as who they talk to about climate change and its perceived importance as an issue.
- Explore people's general public connection and how it relates to their engagement with climate change.
- Investigate interviewees' familiarity with, and perceptions of, the most common linguistic repertoires using indicative sheets based on the media sample.

3.3.1 Public Sample Details

In total 23 interviews were carried out between 2nd December 2014 and 29th May 2015. The first 18 interviewees were recruited via the Cardiff University Psychology Department's Community Panel, a list of volunteers for studies recruited by the department. Younger and less well-qualified interviewees were under-represented at this stage, reflecting the profile of the community panel as a whole. To correct this imbalance the remaining five interviewees were recruited via the researcher's workplace, a not-for-profit organisation in South Wales. All interviewees were provided with the same information about the nature and purpose of the interviews (see Appendix 3.1), and were paid the same honorarium for participation of £9, plus travel expenses of up to £2.50. All interviews lasted between one hour ten minutes and the scheduled maximum hour and a half (including optional break). Ethical approval was received from the Cardiff University Psychology Ethics Committee.

Interviewees' demographic characteristics are summarised in table 3.12. A diverse sample was sought in order to capture a range of levels of public connection and views about climate change, as both have been shown to vary depending on a range of demographic factors (O'Connor et al. 1999, Couldry et al. 2007). The final sample was better educated than the population as a whole; 70% had degree level

or above qualifications, compared to 37% of the UK working age population (Nomis, 2016). Additionally the sample only included two people in the 25-44 age brackets, probably because people of this age are the most likely to have full time work and/or parental commitments, limiting their availability for interviews during the working week. Interviewees' views about the causation of climate change were in line with the population as a whole (table 3.13), while their levels of public connection were above average (table 3.14).

Table 3.12 Interviewees

Interviewee Number	Age	Gender	Highest level of qualification	Household income
1	45-54	Female	GCSE/O Level	£10 000 - £19 999
2	55-64	Female	Postgraduate	£30 000 - £39 999
3	65+	Male	Postgraduate	£30 000 - £39 999
4	45-54	Female	A Level/BTEC	£75 000 or more
5	55-64	Female	Postgraduate	£10 000 - £19 999
6	55-64	Male	Degree or equivalent	£10 000 - £19 999
7	45-54	Male	A Level/BTEC	£20 000 - £29 999
8	35-44	Female	Postgraduate	£50 000 - £74 999
9	18-24	Female	A Level/BTEC	Up to £9 999
10	18-24	Male	A Level/BTEC	£10 000 - £19 999
11	65+	Female	Degree or equivalent	£20 000 - £29 999
12	65+	Male	Postgraduate	£10 000 - £19 999
13	35-44	Female	Degree or equivalent	£30 000 - £39 999
14	55-64	Male	Postgraduate	£30 000 - £39 999
15	55-64	Male	Postgraduate	£20 000 - £29 999
16	55-64	Male	Degree or equivalent	£20 000 - £29 999
17	65+	Female	Degree or equivalent	£20 000 - £29 999
18	55-64	Male	Degree or equivalent	£50 000 - £74 999
19	18-24	Male	Degree or equivalent	£10 000 - £19 999
20	18-24	Female	Vocational/NVQ	£30 000 - £39 999
21	18-24	Female	Degree or equivalent	Up to £9 999
22	18-24	Female	Postgraduate	£10 000 - £19 999
23	18-24	Female	A Level/BTEC	Prefer not to say

Table 3.13 Climate Causation Opinions

Climate Change Cause	Interviewees	Capstick et al. (2015)*
Mainly Human Activity	35%	36%
Natural Processes and Human Activity	52%	48%
Mainly Natural Processes	0%	13%
Don't Know The Cause	0%	2%
Not Sure If Climate Change Is Happening	13%	N/A
Climate Change Is Not Happening	0%	1%

* Results are based on 1,002 face-to-face CAPI interviews with members of the British public aged 16+. Data are weighted to the profile of the known population. Responses for Mainly and Entirely Human Activity and Mainly and Entirely Natural Processes have been combined. Option of Not Sure If Climate Change Is Happening was not offered in this poll.

Table 3.14 Public Connection

Public Connection (5 point Likert Scale)	Interviewees	Couldry et al. (2007)	Difference
1. Being involved in my neighbourhood is important to me	3.9	3.6	0.3
2. I often talk with other people about political issues that are important to me	3.6	N/A	N/A
3. I don't get involved in political protests *	2.9	2.6	0.3
4. People who know me expect me to know what is going on in the world	3.8	3.5	0.3
5. Politics has little connection to my life*	3.3	3.1	0.2
6. I have a pretty good understanding of the issues facing our country	3.5	3.9	0.4
7. I feel that I can influence decisions in my area	3.2	2.8	0.4
8. Sometimes I feel strongly about an issue, but don't know what to do about it	3.2	3.7	0.5
9. I trust politicians to deal with the things that matter	2.4	2.9	-0.5

* Negatively worded items have been reverse coded so that a high value score indicates the same type of response on every item to aid comparison

3.3.2 Public Phase Details

Prior to the interviews, interviewees were told the topic of the research was public connection and media usage. They were also told I was interested in a specific

public issue that was the focus of the second part of the interview, but that I would only tell them that topic after the first part. This was in order to avoid (i) affecting the recruitment of interviewees with unusually high or low levels of interest in climate change; and (ii) the first part of the interview becoming focused on climate change and to see if it came up as a topic spontaneously. A brief questionnaire prior to the start of the interviews asked about basic demographic information and current levels of public connection and media usage based on questions largely drawn from Couldry et al (2007) (see appendix 3.2 for full questionnaire). Interviewees completed the final three questionnaire items about climate change specifically after the first part of the interview. At the end of the interview, interviewees were thanked for taking part, paid, and debriefed about the aims of the research.

The interviews were semi-structured and I attempted to ask open questions and create a reasonably informal atmosphere to allow interviewees to explore these topics. Potential barriers might be that interviewees are not familiar with the term public connection or do not consider themselves and/or the issues they are interested in sufficiently 'political' to be relevant to the study. Therefore, I tried to encourage talk about concrete examples as a starting point for responses, both asking interviewees to talk more about the answers they gave to the questionnaire and prompting them to talk about specific news stories or issues they had been paying attention to recently. Each interview followed the same outline protocol to ensure that all the main areas were covered, while also allowing some freedom to reflect the different interests of interviewees within these areas and not labour topics a particular interviewee had little to say about. This is not the same as not exploring areas interviewees were not interested in; sometimes interviewees expanded on the reasons for their lack of interest at some length. I attempted to provide enough structure to enable interviewees to talk about the topics without leading them to focus immediately on a specific area. An outline interview protocol is provided in appendix 3.5, including example questions.

3.3.3 Interview Analysis

The interviews were audio recorded, transcribed and then analysed using NVivo. The analysis included some systematic coding; climate actions were coded in order to facilitate comparisons with the media sample. The majority of the analysis, however, was based on a discourse analysis approach, identifying emerging themes within each of the interview topic areas in table 3.15. The qualitative analysis of emerging themes within each topic was often supplemented with quantitative responses from the questionnaires, providing a quantitative anchor to help analyse qualitative answers and facilitate comparison between interviewees. There was generally a very good fit between interviewees' responses to the questionnaire items and their answers in the interviews.

Table 3.15 Interview Topics

Interview Section	Topic	
Public Connection	Issues of interest	
	Local issues	
	Perceptions of self as political actor	
	Perceptions of political system	
	Public actions	
	Talking politics	
Media Connection	Media Talk	
	Media Use	Television
		Newspaper
		Radio
		Internet
		Social Media
	News Connection	
	News Sources	
	News Search	
	Issue Attention	Interest
		Avoidance
Causes of Climate Change	Causes of climate change	
Climate Actions	Climate actions aware of	
	Responsibility for action	
	Efficacy of current actions	
Own Climate Actions	Actions taken	
	Actions not taken	
	Responsibility for taking personal action	
Climate Public Connection	Climate science	

Interview Section	Topic	
	Climate talk	
	Climate politics	Domestic
		International
Climate Media Connection	Memorable content	
	Recent content	
	Typical features of climate content	
	Search for climate content	
Perceptions of Climate Coverage	Perceptions of media coverage	
	Perceptions of media information about actions	

The discursive links between different topics were also analysed; for example, differences in how people talked about the causes of climate change turned out to be relevant to differences in their responses across a range of topics. The adoption of this methodology was informed by the research aims: to explore the relationships between the news coverage of climate change and the more action-oriented discourse found in the media sample, and the relationships between climate discourse specifically and more general public connection.

3.3.4 Linguistic Repertoires

The final part of the interview explored interviewees' perceptions of the most common linguistic repertoires from the media phase. Indicative sheets were developed featuring images and quotes typical of the main features of each of the five main repertoires (figures 8.1-8.5). As far as possible, there was one indicative example for each feature identified, but occasionally one or two features had to be cut or combined to fit the size of the sheet. The features used on each sheet were, as much as possible, drawn from different communicators in order to reflect the diversity of communicators using each repertoire. Each sheet was numbered, rather than labelled with the repertoire name, to avoid leading interviewees' interpretations of the sheets. The sheets were presented in the same order in each interview, from most to least common in the media sample, rather than varying the order at random, on the basis that starting with the most familiar sheets would increase people's confidence in talking about the less familiar ones. A possible

drawback of this approach is that this order may produce framing effects from the early repertoires (Tversky & Kahneman 1973), although this framing effect might also reflect peoples' experience of public discourse where the first repertoires seen are the most common ones. Once they had commented on each of the sheets in turn, interviewees were asked to carry out a conceptual sort, based on criteria of their own devising, and explain it to the interviewer.   This approach was successful in getting most people to talk about each sheet in some detail (some minor modifications to the approach were made after the first three interviews). The most common repertoires were widely recognised from the sheets, and the less familiar ones also appeared to represent a coherent message to the majority of interviewees. The strong levels of similarity in how people described the individual sheet's approaches, and in their rationales for organising the sorts, also indicate that the sheets were viewed as coherent framings. Only very occasionally did interviewees say that they were unable to identify any organising theme within a sheet.

4 Media Analysis: Climate Action Discourse

This chapter describes the climate action discourse identified through content analysis of the advertising sample. The intention of this chapter is to provide a description of the main features of this action discourse. As the coding identified the existence of items in the websites as a whole, unless otherwise stated, all percentages in results in this chapter refer to the proportion of websites in which the item being analysed appears. (Full tables of results can be found in appendix 4.1). Firstly, it describes the resolve consensus, the shared assumptions that underpin the action discourse. It then details how the action discourse avoids common controversial elements of wider public discourse about climate change, including climate science and bad news, in order to focus on action. It looks at how the action discourse is dominated by one particular type of action, individual civic engagement action; then how the environment is used as a unifying theme in the action discourse, and contrasts this to environmentalism. Finally, it identifies how the corporate sector serves as a centre of gravity for the action discourse, exerting the strongest influence on its framing of climate action.

4.1 Resolve Consensus

Acceptance of the reality of climate change is widespread across the sample. There is not a single use of any non-consensus repertoire to question that: (i) climate change is a real problem, (ii) it is caused by humans and (iii) that it is solvable by human action. There are also few references to the controversies about the reality of climate change common in wider public discourse. The few times sceptical arguments did occur it was in the context of providing a set of counter arguments disproving them, presented as helpfully recapping established knowledge, rather than providing new persuasive information for the reader, 'it's good to review the facts (and these really are facts!) from time-to-time in order to remind ourselves that these are REAL problems that are happening NOW' (OVO Energy). The

representation of an active scientific debate, a prominent element of news coverage (Carvalho 2007), was almost entirely absent from the sample; statements treating climate change as established scientific fact were far more common, 'overwhelming scientific evidence shows that there have been changes in the global climate' (Oxfam). This type of explicit statement, however, was still only found in a minority (27%) of websites; the majority (69%) implicitly accepted the scientific consensus without making an explicit statement of this type (the other 4% made so little reference to climate change it was not possible to identify a position either way). Public acceptance of the reality of climate change is assumed by these communicators and they make little explicit reference to climate science.

The focus of the sample discourse is the need to take climate action, underpinned by this acceptance of the reality of climate change, rather than the potential consequences of inaction. Ereaut and Segnit (2007, p.6) identify two main types of consensus linguistic repertoires within public discourse: resolve (focused on the need for action) and alarm (focused on the threat from climate impacts). In 96% of the websites the primary repertoires were resolve repertoires, reflecting this focus on action. The climate disaster imagery and rhetoric typical of alarm repertoires, and common in both news coverage and films about climate change (Lowe 2006, Lester & Cottle 2009), play a very minor role in the sample discourse. Every communicator identified at least one, and in most cases a selection, of actions, that could be taken in response to climate change, and a wide range of different benefits and potential beneficiaries of these actions. In contrast, 55% of communicators did not identify any potential impacts of inaction. Similarly, the range of potential impacts and victims of inaction was far more restricted. The overall effect of these features is to create an action discourse in the advertising sample based on a resolve consensus characterised by acceptance of the reality of climate change, and focused on the benefits of taking action.

4.2 Avoidance of Climate Science and Bad News

A lot of news coverage of climate change reflects increasing levels of political polarisation, but the sample communicators responded very differently to this, including their use of: (i) climate science, (ii) alarming representations of impacts and (iii) ideologically loaded phrases 'climate change' and 'carbon'. Firstly, representing climate science as a debate enables news producers to present clear for and against positions, simplifying complex science into a relatively straight-forward and familiar interpretive framework for their audience. For advertisers, however, this debate is potentially counter-productive for audience engagement, as it may create doubts about the reality of climate change undermining their action-oriented messaging. Also corporate websites have a greater amount of time and space to present a clear summary of the scientific consensus underpinning the case for action; particularly as they do not have the same imperative to present new/newsworthy information. Just 27%, however, provided any kind of explicit statement about the scientific consensus. Similarly, only a minority of communicators provided summaries of the causal mechanisms of climate change (29%)

> *'Global warming is occurring because the planet is heating up as the result of too much carbon dioxide being released into the atmosphere. A major source of carbon comes from burning fossil fuels for energy – for example, to heat our homes or run our cars. The carbon rises up to the earth's upper atmosphere where it acts like an insulating coat, reflecting heat from the sun back to the earth's surface'* (Npower)

and the potential scale of the risks (36%),

> *'Climate change is one of the greatest threats to environmental, social and economic sustainability facing the world today. Rising global temperatures will bring changes in weather patterns, rising sea levels and increased frequency and intensity of extreme weather events'* (Cardiff Council)

Alarming representations of climate impacts are, like climate science, closely related in public discourse to political polarisation. This link between climate science and alarm is demonstrated by NGOs being the most likely to both provide information about the scientific consensus (46%) and use alarm repertoires (45%), 'across the world emissions are increasingly close to catastrophic levels, and without significant change in current rates of increase the world is heading for an environmental disaster' (TUC). It appears most communicators give more weight to concerns about the potentially demotivating effects of the alarm associated with climate science, rather than consistent findings about public misperceptions of the level of scientific consensus and public desire for clear scientific guidance (Lewandowsky et al. 2013).

In the news, politically charged terms can be effective in gaining audience attention, and the inaction that this controversy may cause among some parts of the audience is less of a concern. The phrases 'climate change', and to a lesser extent 'carbon', were found to be often avoided in print adverts about climate change due to their ideological loading (Svodoba 2011). Despite the much greater amount of content required in corporate websites compared to print advertisements, 47% made no more than passing reference to climate change, including 16% who did not mention it at all; just 22% used either climate change or carbon in the primary heading for this section of their website. In the minority of websites where these phrases were used as headings they were often accompanied by a strong direct statement about the reality of climate change, 'last year was the third warmest year worldwide since records began in 1861 and all of the 10 warmest years have occurred since 1990, yet an astounding 85 percent of the UK population believes they will not witness the effects of climate change for decades' (Energy 4 All). This was rarely the case when alternative headings were used, which is consistent with the link between avoidance of these phases and avoidance of climate science and other potentially controversial elements of climate change more generally. Government communicators were the most likely to use climate change as a heading, reflecting the political consensus on climate change (figure 4.1). In the corporate sectors less politically loaded terms were the most common;

'environment' and 'sustainability' in the mobile sector, and 'energy' and 'green' in the energy sector. Although other environmental issues were sometimes included in these websites, climate change was usually their main focus, meaning avoiding using these phrases sometimes requires remarkable efforts; Green Mobile whose main product feature is reducing carbon emissions, made their pitch without using the phrase climate change once in their entire website, 'don't upgrade your phone this year and make a responsible decision that will help the environment. You are helping green charities too so it's a double-whammy' (Green Mobile). Overall, the sample communicators largely attempt to sidestep the controversy and political polarisation around climate change in public discourse by avoiding climate science, alarming representations of impacts and ideologically loaded phrases, in order to focus attention on actions through the resolve consensus.

Figure 4.1 Use of 'Climate Change' in Website
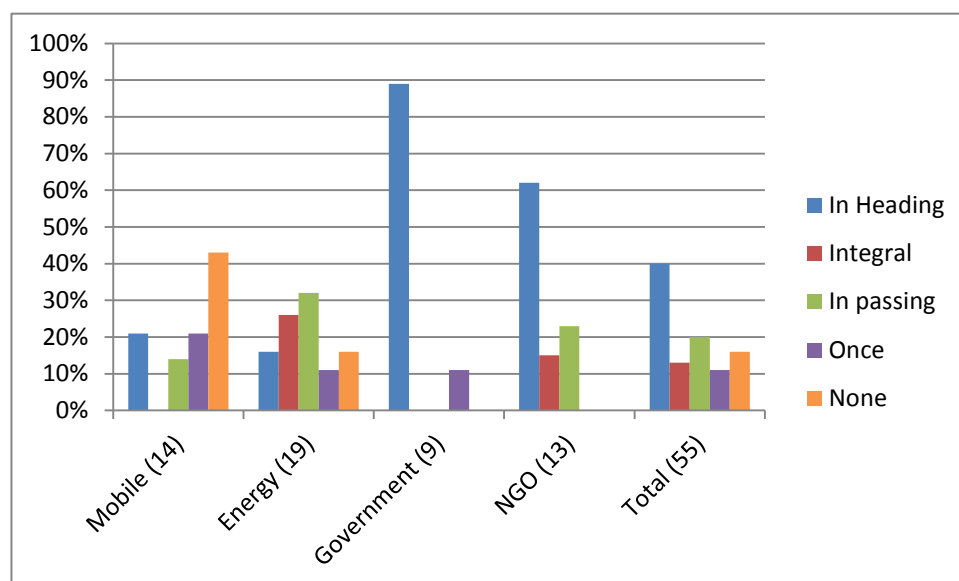
4.3 Optimistic Discourse Rooted in Individual Action

The action discourse locates climate action at the individual level. The individual was the most common primary beneficiary of climate action, and 89% of all communicators identified some benefit(s) to the individual.   Individual civic engagement actions were suggested by 91% of communicators, making them the dominant form of action, rather than political participation (table 4.1). Individual

civic engagement actions mainly address personal climate impacts, rather than attempting to directly influence others through political action (examples of each type of action from the media sample can be found in table 4.2). This type of action is a good fit with the *small actions* repertoire, the most common climate repertoire (60% overall and 24% primary), in which agency is located with individual members of the audience, as the actions do not rely on either collective co-ordination or larger scale societal changes. The communicators, however, often framed these individual actions as part of a common commitment to act that would have a cumulative impact, 'Bridgend County Borough Council encourages homeowners to make their homes as energy efficient as possible. By doing so we give ourselves a better chance for good health, savings on fuel bills and reduce the impact on the environment' (Bridgend Council). This highlights an important distinction between collective actions which require co-ordinated collective effort (such as community renewables projects), and the framing of individual actions in terms of cumulative effort; this cumulative effort helps to explain the action's efficacy, but does not require any communication or co-ordination between the individuals taking action. This suggests individual actions to reduce personal carbon emissions are one of the most prominent features of this discourse.

Table 4.1 Types of Public Actions

Public Action Type	Civic Participation		Political Participation	
	Attention	**Engagement**	**Formal**	**Activism**
Individual	56%	91%	22%	18%
Collective	44%	44%	16%	22%

Table 4.2 Examples of Public Actions

Type of Public Action	Definition	Example
Civic Participation - Attention - Individual	Personal interest in, and attentiveness to, climate change as public issue	'Think global, act local. Find out what other countries are doing. Read news stories from around the world online and consider how your actions impact the rest of the world' (Green Guide)

Type of Public Action	Definition	Example
Civic Participation - Attention - Collective	Interest and attention to climate change informed by a sense of belonging to a group or a collective with a distinct profile or agenda	'Join social networking groups. From Yahoo! Groups who chat about CSR to Fairtrade friendly Facebook groups, there are plenty of them online. It's a great place to share information and experience' (Green Guide)
Civic Participation - Engagement - Individual	Individual actions taken to address climate change that do not involve pressuring other actors to change their actions or policies	'From small everyday changes to larger measures, our energy efficiency advice and helpful tips make it easy to save energy and money' (SSE)
Civic Participation - Engagement - Collective	Taking climate actions of this type as part of local community, charity or other group	'We want communities to own, control and benefit from their own renewable energy projects' (Co-operative Community Energy)
Political Participation - Formal - Individual	Electoral participation and contact activities	'Climate change and inequality are the greatest challenges we face today - how will your MP help tackle them? (…) please email your MP today, and ask them where they and their party stand on these issues' (Oxfam)
Political Participation - Formal - Collective	Organized political participation: membership in conventional political parties, trade unions and organizations	'Climate change will affect us all, whether we live in developed or developing nations, hitting our quality of life. As trade unionists, we must speak out for workers everywhere in the fight for social and environmental justice' (TUC)
Political Participation - Activism-Individual	Extra-parliamentary forms of participation (e.g. signing petitions, political consumption)	'Many people try to do their bit by choosing products that minimise damage to the environment. But the buck doesn't stop with us (…) By talking to them (companies) about the campaign, you can help make sure they take your concerns about this issue seriously' (Make it Better)
Political Participation - Activism - Collective	Loosely organized forms or network-based political participation: new social movements, demonstrations, strikes, and protests	'If our decision makers fail to act, how can we as individuals and communities? (…) Your community will be stronger by forming a group so you can share the workload, access funding, bring everyone on

Type of Public Action	Definition	Example
		board and benefit from the skills of all the individual members' (Green Valleys)

Individual civic engagement as a type of action, informed by this cumulative impact, is the common element across the action discourse, rather than any specific action, or set of actions. There was considerable overlap between the specific actions suggested within each sector; with these actions often framed in similar ways and referencing the same information sources to support their effectiveness. Between sectors, however, there was much less overlap as communicators selected actions on the basis of their own impacts and those of their sector, rather than in relation to overall climate impacts. Half the sample referenced actions against their own existing internal impacts, 'compared to 2011, CO_2 emissions from our facilities decreased by 14%' (Nokia). However, only 22% referenced overall ecological limits, 'the information sheet available below draws on the findings of CAT's Zero Carbon Britain 2030 report, and gives advice on the transport choices that can move us to a zero carbon future' (CAT). There was considerable variation between sectors (figure 4.2). Commercial sectors were most likely to make reference to their own internal impacts, and in the energy sector to also make comparisons with others in the sector. NGOs were more likely to refer to ecological limits. Overall, however, within each sector there were strong similarities in the types of individual civic actions suggested and the way in which these were framed in terms of the impacts relevant to that sector's activities.

Figure 4.2 Action Impact Comparisons
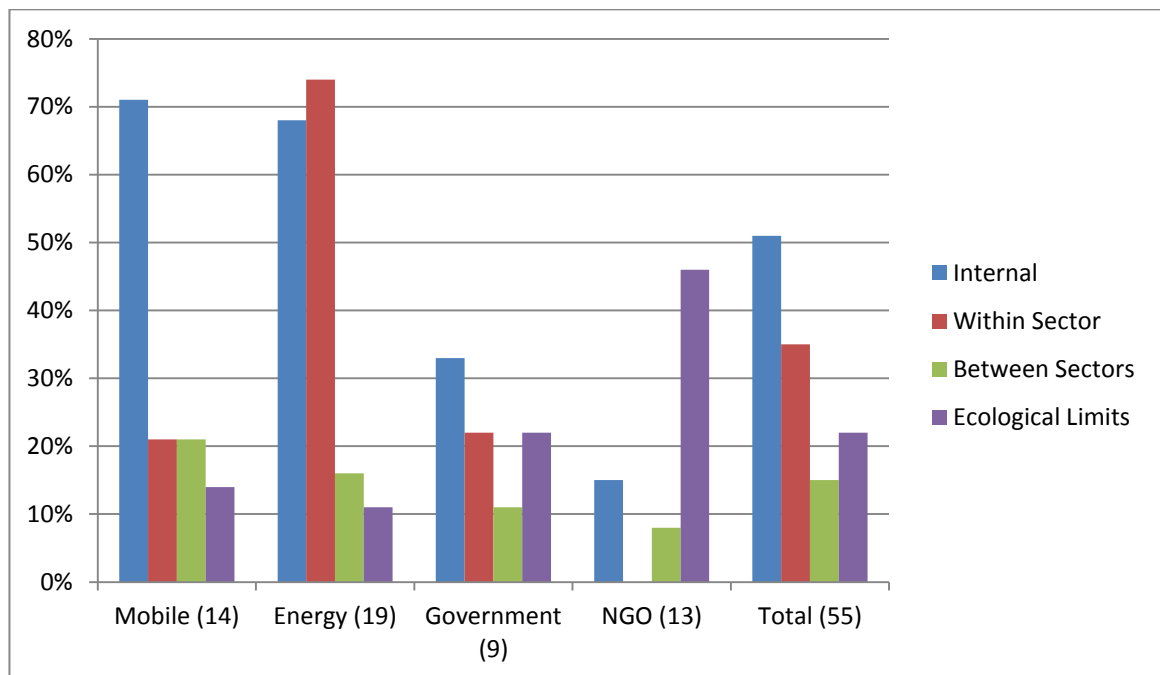
These individual civic actions were not constructed as meaning the audience have sole responsibility for tackling climate change. Communicators attempted to match individuals' actions with their own commitment to reducing climate change. Corporate communicators created this reciprocity in two ways: firstly through their commitment to meeting their own corporate targets; and secondly, by showing how they were supporting their own employees to take these types of individual actions in the workplace. For example, Nokia had a series of short videos about recycling, local food sourcing and cycling to work schemes at their factories. Government communicators who utilised this second method largely used case studies of how they were helping ordinary people to take these actions, rather than government employees: 'small steps in Neath Port Talbot can mean big results for Wales' Carbon Footprint. (…) Why not try the bilingual online carbon calculator, to work out your carbon footprint by gathering simple information about how you use gas, electricity and travel' (Neath Port Talbot Council). NGOs made much less use of both methods, relying more on their higher credibility as environmental actors as the basis for their appeals: 'we're on the way to a cleaner, cleverer, low-carbon world, and everyone deserves a chance to help build it. 10:10 creates these chances, and brings people together to make the most of them' (10:10).

Although the *small actions* repertoire and this type of individual civic engagement provide people with relatively simple and direct ways of acting on climate change, a high level of reliance on them has been critiqued for potentially reducing motivation due to the mismatch of scale between these actions and the problems of climate change (Ereaut & Segnit 2007, p.6). The lack of alarm rhetoric and imagery in the advertising discourse means that this mismatch is not so obvious. The importance of doing something and the moral and/or social norms underpinning action are played up, while wider structural factors effecting actions are largely ignored. A rare example of these structural factors being directly addressed was the TUC green guide for union representatives, 'union green reps can come under pressure to police staff behaviour (…) as well as asking each staff member to turn their computer off, it makes economic and environmental sense to invest in technology to automate energy saving processes. That's why green issues need to feature on the collective bargaining agenda.' This acknowledgment of the potential for corporate greenwashing to place responsibility for small actions on employees, while not addressing the corporate structures that underpin impacts, lead to a rare example of advocacy for political action. The overall effect of the action discourse is advocacy for individual civic actions (which vary by sector), underpinned by mutual commitment to act, which will have a cumulative effect, rather than being a collective effort.

The two dominant framings of the audience were as consumers (80%) or citizens (71%), with 53% of communicators using both (table 4.3). As would be expected the consumer framing was more common in the corporate sectors, 'most of the money we spend on energy goes on heating our homes. And the last thing you'd want to do is waste it.' (SSE), while framing the audience as citizens was most common in the governmental and NGO sectors, 'energy is a key part of any society from keeping the lights on to fuelling our cars the demands for energy increases year on year both in the UK and worldwide' (Energy 4 All), but each sector made considerable use of both framings. Individual civic engagement actions were framed in terms of both the consumer's economic interests and the citizen's environmental and moral responsibilities. Indeed, often consumer and citizenship

elements were constructed as mutually compatible: 'while we need policy changes from government to tackle the big issues, we can make changes to our own behaviour that will put us on the path to sustainable living' (Green Guide). There was, however, sometimes an acknowledgment that this has either not been the case in the past, or was not automatically the case, '10:10ers work together to push for common-sense policies that will bring down the UK's emissions and make it easier for all of us to do the right thing' (10:10).

Table 4.3 Construction of Audience

Audience Type	Mobile (14)	Energy (19)	Govern ment (9)	NGO (13)	Total (55)
Consumer	100%	89%	56%	62%	80%
Citizen	50%	58%	89%	100%	71%
Local Community Member	7%	37%	67%	38%	35%
Activist	21%	21%	11%	54%	27%

Two alternative constructions of the audience occurred more frequently within the non-corporate sectors. NGOs were much more likely to construct the audience as activists, 'the Transition movement is spreading like wildfire. People across the UK and further afield are taking up the challenge of creating, an alternative future for their community' (Cardiff Transition), reflecting the higher proportion of political actions NGOs suggested. Government communicators often constructed the audience as local community members, reflecting both the high proportion of local authorities in the sample and the community oriented rhetoric of the Welsh Government, 'there are lots of communities in Wales taking action to reduce their carbon footprint. Have you thought about how you and your community could reduce your carbon footprint?' (Wales Carbon Footprint). The government sector was the only part of the sample in which community, rather than individual, benefits were most common. Both of these constructions of individual action were found largely only within the one particular sector.

In sharp contrast to the dominance of the individual in other areas, it was highly unusual for the individual impacts of climate change to be identified; a rare example of this happening was, 'We see our fuel and supermarket bills rise and our

land, sea and air altered by our activity. We fear for our children in a future climate and wonder about the security of our jobs, the potential to lose our homes to flooding and whether the next generation will curse us for our excesses' (Green Valleys). Impacts were most commonly identified at the level of a generic, non-specific, environment, and these were often quite indirect passing references, 'if you're concerned about the environment, you'll want to know where your energy comes from' (Co-Operative Energy). Humanity was the only scale where, in contrast to the far greater frequency of benefits overall, more risks than benefits were identified (Figure 4.3). These risks could also be framed as temporally distant, 'sustainable development is all about trying to live our lives in a way that doesn't damage the Earth for generations to come' (Monmouthshire Council). As well as benefits massively outnumbering risks in this discourse, their distances are opposites; benefits are focused on the individual, communities and nation, while the risks that do appear are frequently spatially and temporally distant.

Figure 4.3 Distribution of Benefits of Climate Actions and Risk of Inaction
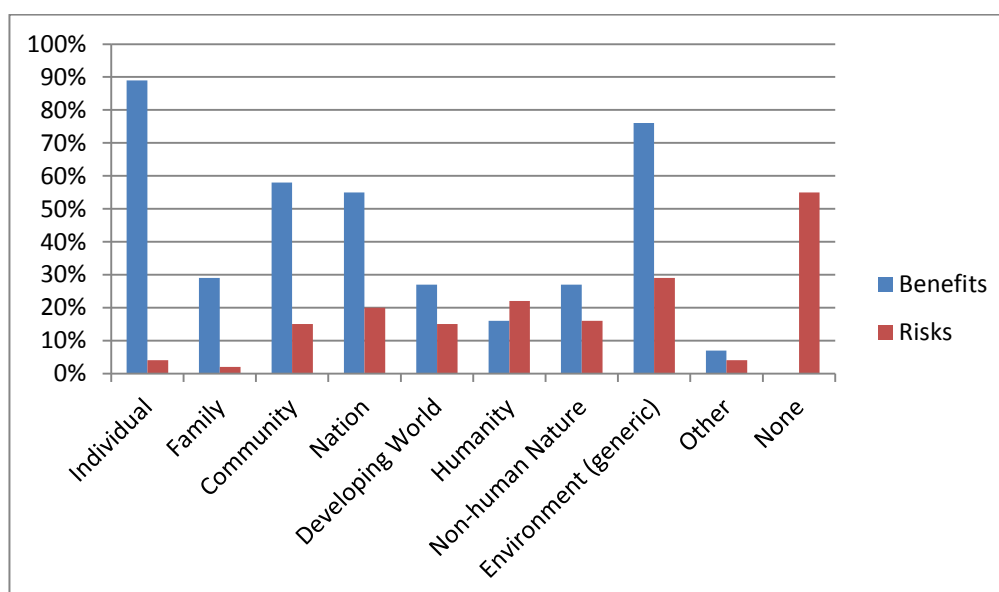
4.4 A Discourse Rooted in the Environment (but not Environmentalism)

After the individual, the (generic) environment is the most common beneficiary of climate action. The (generic) environment has two important features. Firstly, it is

a generic representational marker (figure 4.4), in contrast to non-human nature, which includes all representations of specific plants, animals or landscapes (figure 4.5). The environment (76%) far exceeds non-human nature (27%) as a beneficiary of action. NGOs (46%), as might be expected, most frequently identify non-human nature as a beneficiary. However, generally this is not a discourse that consistently links climate change action to the type of emotional connection with nature associated with environmentalism.

Figure 4.4 Environment (Generic)   **Figure 4.5 Non-Human Nature**

Monmouthshire Council   Size of Wales

Secondly, while this generic concern for the environment runs through much of this discourse, it is the primary focus of only 15% of communicators. Most of the communicators for whom it is the primary focus are in the mobile sector, 'for more than 20 years, we've been working to minimise the impact our company and our products have on the environment' (Apple), which is a result of the relatively underdeveloped nature of the climate discourse in that sector (outlined below), rather than a stronger commitment to environmentalism. The environment is a common theme unifying other benefits in this discourse, rather than its normative motivation, 'that's an easy way of contributing towards your future and helping the environment at the same time' (British Gas).

The differences between the generic environment and environmentalism are also illustrated by how additional voices quoted in the websites were used to support the main corporate voice in constructing communicators' messages. The two most common additional voices (figure 4.6) were ordinary people (40%) and celebrities

(31%). In both cases, these speakers were frequently positioned as representing mainstream cultural values, and used to establish climate actions as part of accepted social norms. Ordinary people were used to situate climate action in the context of normal domesticity, 'we have had the Nest for over two weeks and it has changed our entire family's way of thinking about energy usage. We have three kids, ages 14, 11, and 11. They are energy hogs! Overly long showers, leaving lights on and just generally wasteful' (Nest). Celebrities also promoted taking common actions, endorsing an environmental norm, 'I encourage clubs, from players to ground staff, to plan their own Climate Week Match. If every club can kick-off more sustainably then we can call time on Football's environmental impact' (Gary Neville, ex-Manchester United footballer, Climate Week). Both of these quotations were accompanied by images of the speaker (figures 4.7 & 4.8), as was often the case for these types of quotes, reflecting that these speakers serve as personifications of these pro-environment norms.

Figure 4.6 Additional Voices Quoted in Websites
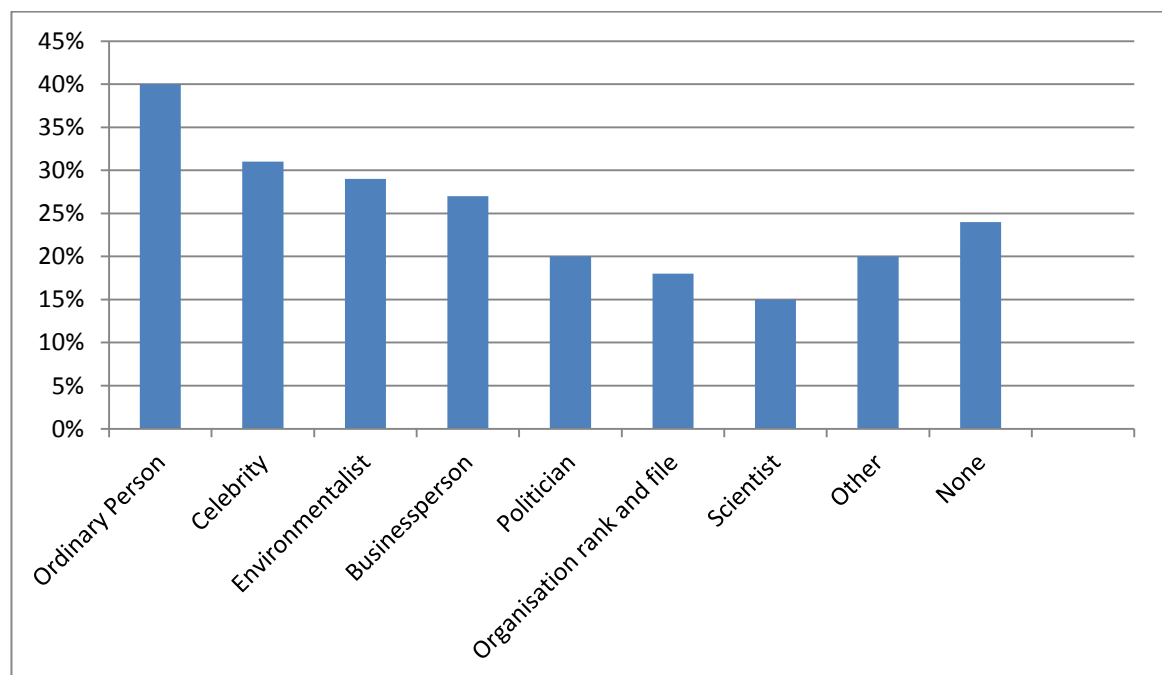
Figure 4.7 Ordinary People   Figure 4.8 Celebrity

Nest   Climate Week (Gary Neville)

In constructing these pro-environment social norms many communicators appear to be attempting to avoid both the controversy surrounding climate science and some of the negative stereotypes associated with environmentalists, as tree-huggers who want you to change your lifestyle (Bashir et al. 2013, p.617). The types of credibility associated with ordinary people and celebrities are more important to these norms than the expertise and commitment represented by the use of environmentalists (29%) and scientists (15%). The very different types of quotes used to represent these qualities can be shown by two examples. Firstly, an environmentalist demonstrating commitment, 'I started TAOS Network in 2006 with the help of an enthusiastic and experienced team (…) I very much appreciate the chance to partner with Fairphone to make a smart phone that "goes green and goes clean" (Zhang Qing, Fairphone). Secondly, expertise produced by using a scientist; Dr Geoff Leventhall described as, 'consultant in Noise Vibration and Acoustics and author of the Defra Report on Low Frequency Noise and its Effects 16', is quoted as saying, 'I can state quite categorically that there is no significant infrasound from current designs of wind turbines' (Energy4All). Typically these quotations were not accompanied by pictures of the speaker, reflecting that their appeal is not based on the personal embodiment of social norms. Instead, their credibility rests on speaking for larger world-views, demonstrated by the citing of credentials and organisational associations. This pattern of additional voices supports the idea that social norms around the environment are part of the context

for action in the sample discourse, rather than environmentalism serving as the primary motivator of action.

The visual representation of the environment was widespread in the sample; only 11% of sites included no images of nature. This reflects the popular appeal of environmental images and the prominence of representations of nature in non-environmental advertising (Hansen 2002). The types of representation of nature varied quite widely across the different sectors (table 4.4) (Images were not coded individually, to be counted as an instance of each visual representation a website had to contain one image of that type). 'Nature as intrinsically good' was the most common overall, and was used most frequently by NGOs (92%), reflecting their greater willingness to draw on environmentalism's positive valuing of non-human nature. These images also often drew on positive public perceptions of renewable power sources (figure 4.9).

Table 4.4 Visual Representations of Nature

Visual Representations of Nature as…	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Intrinsically Good	36%	58%	33%	92%	56%
Nice Place	43%	42%	67%	69%	53%
Object of Human Mastery	43%	53%	44%	23%	42%
Recreational Function	0%	16%	44%	23%	18%
Space to be Traversed	7%	11%	44%	15%	16%
Other	29%	26%	22%	31%	27%
None	7%	21%	11%	0%	11%

Figure 4.9 Nature as Intrinsically Good

SSE   nPower

Government communicators used 'nature as a nice place' most frequently often tapping into positive values associated with specific local landscapes, rather than the more general images of 'nature as intrinsically good'. Rather than stemming solely from nature, these values also come from the cultural meanings attached to them, including their importance to local identities. Reflecting the overall positive framing, these landscapes were not represented as vulnerable to climate change, but as a positive to be further enhanced by action (figure 4.10). Government sites also often drew on both 'recreational function' and 'nature as a space to be traversed' themes, representing these landscapes as places for leisure and tourism, to be reached using environmentally friendly transport (figures 4.11).

Figure 4.10 Nature as Nice Place

Rhondda Cynon Taff Council

Figure 4.11 Nature as Space to be Traversed

Neath Port Talbot Council

'Nature as an object of human mastery' occurred most frequently in the energy sector; often combined with 'nature as intrinsically good' in images of renewable energy.   Many of these images also tried to locate renewable power in specific places through case studies, linking with the cultural values attached to these places (figure 4.12). Often this was a particular vision of supporting the British countryside and the cultural values and lifestyles associated with it. Images of

'nature as on object of human mastery' were also used to represent the scale of renewables as sufficient to meet the size of the climate challenge (figure 4.13). This type of image fits less well with the intrinsic value of non-human nature.

Figures 4.12 &   4.13 Nature as Object of Human Mastery

Energy 4 All   10:10

One notable exception to this use of nature in visual rhetoric is the *small actions* repertoire. The Energy Savings Trust, the communicator that draws most heavily on this repertoire and serves as a source of *small actions* content for many others, features no visual representations of nature at all. Similarly, a number of communicators provide videos based around *small actions*, which feature few, if any, representations of nature. While this repertoire does have its own identifiable visual markers, e.g. energy saving light bulbs (figure 4.14), they lack direct visual connections to the environment and are typically situated indoors. Images and videos of individual actions that take place outside tend to be part of the *green lifestyle* or *radical action* repertoires (figure 4.15).

Figure 4.14 Small Actions   Figure 4.15 Outdoor Action

Wales Carbon Footprint   Co-op Clean Energy

Cultural values attached to various landscapes play an important part in the representation of nature in the sample discourse, particularly in relating climate actions to lifestyle. Representations of rural landscapes and lifestyles were not the only example of this; communicators in the mobile phone sector and urban local authorities attempted to place positive cultural values and lifestyles associated with the natural world in urban landscapes (figures 4.16). This is a representation that may have a strong relevance to many of the public, but is rarely seen in either wider public discourse or traditional environmentalism (Lewis 2012).

Figure 4.16 Nature as Intrinsically Good Urban
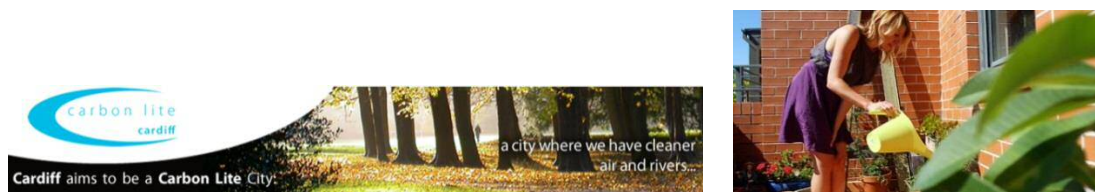
Cardiff Council   Nokia

The most common benefit of action suggested in the sample was financial. Typically these financial benefits are related to a specific action, 'turn your heating down by 1°C and you could save around £60 per year' (SSE). More general arguments that climate action per se is financially beneficial are far less common, 'these reforms will help to support up to £110 billion of additional investment across the electricity sector by 2020, helping to insulate Britain from future world gas price increases and boosting jobs and growth in every region of the UK' (DECC). The next two most common benefits are climate and the environment more generally, reflecting limited evidence in the sample of reframing of climate change in terms of other public issues; the most common alternative was to reframe climate change in terms of private, often financial, motivations for action. Most of the alternatives to climate change or carbon as headings are also environmental terms, with the exception of energy, which is unsurprisingly common (63%) in the energy sector, but has also spread to other sectors. Much of this energy framing still relates to the environment as it draws heavily on widespread positive public perceptions of green energy and taps into techno-optimism repertoires,

'government's drive for reduced carbon emissions and increased renewable energy. This opens up a world of opportunity for the development of clean, green solutions' (Scottish Power).   There is a second energy discourse, common in wider public discourse, but largely absent from the sample, with the exception of DECC, where environmental concerns are potentially expensive indulgences, and secondary to security and cost of supply, 'while the Government cannot control the price of energy in the global market, it can help bill-payers by reducing the impact of social and environmental programmes on their bills' (DECC). The environment is a common unifying theme through which climate actions are framed in the sample discourse, but it is usually not the primary reason given for any particular action; the typical formulation of this would be 'take action x for reason y (most commonly financial) and help the environment to.'   The prominence of environmental benefits is not the result of the action discourse being driven by a commitment to environmentalism.

Figure 4.17 Benefits of Climate Actions
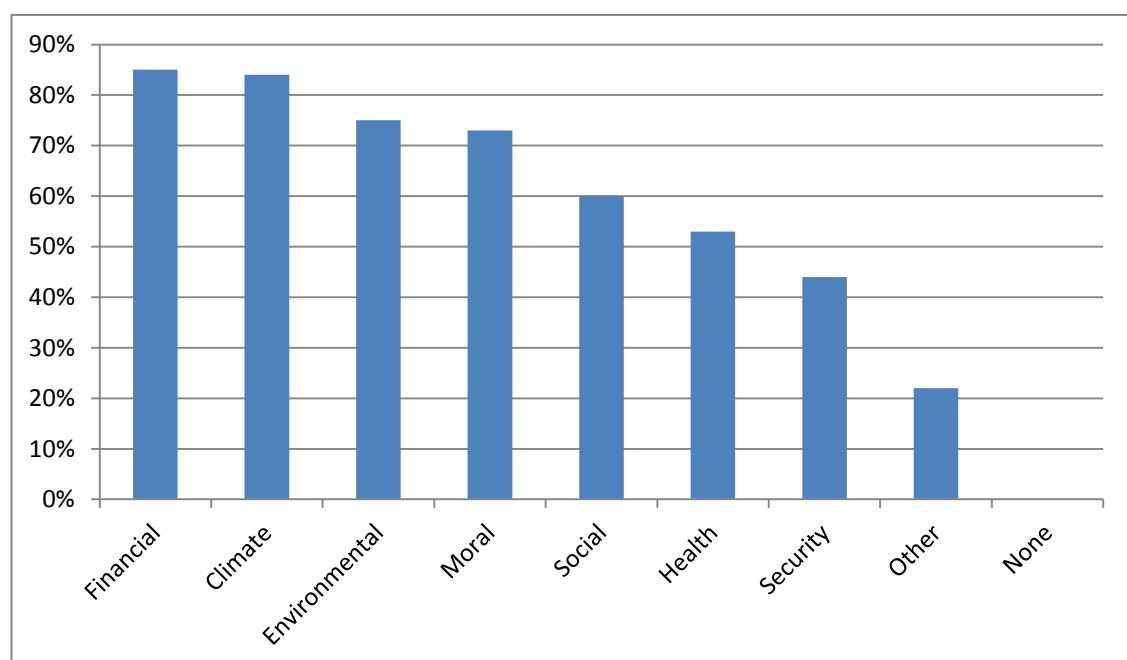
4.5 Corporate Sector Centre of Gravity for Action Discourse

As the sample contains substantially more corporate communicators than other sectors, my claims for the influence of the corporate sector are not based on the extent to which overall results reflect trends in the corporate sector, but the extent to which trends found across all sectors were most pronounced within the corporate sector. While individual civic engagement actions are the most common form of action suggested in all four sectors (table 4.5), it is in the two corporate sectors that they are most dominant with just one corporate communicator not suggesting this type of action. The three other forms of civic participation are all notably lower in the mobile sector, reflecting the framing of climate change in terms of corporate responsibility rather than as a public issue. In the energy sector individual civic attention is as common as in the government and NGO sectors, reflecting that they frame climate change as a public issue, which requires this type of public attention. Levels of both collective forms of civic participation are lower, however, as the corporate sector's focus is on individual responses to climate change. Most calls for all forms of political participation came from NGOs; government suggestions for this type of action were as low as in the two corporate sectors, including remarkably no suggestions at all for participation in formal democratic politics. On the one hand, it might be argued that this is unsurprising as governments do not want to be put under pressure to change their policies, but not all political participation has to be oppositional; the UK political climate consensus provides an obvious framework for building supportive political involvement that is strikingly absent.

Table 4.5 Political Actions

Action Type	Mobile (14)	Energy (19)	Govern ment (9)	NGO (13)	Total (55)
Political Participation - Formal - Individual	7%	21%	0%	54%	22%
Political Participation - Formal - Collective	21%	11%	0%	31%	16%
Political Participation - Activism- Individual	7%	16%	22%	38%	18%
Political Participation - Activism - Collective	14%	11%	22%	54%	22%
Civic Participation - Engagement - Individual	93%	100%	78%	85%	91%
Civic Participation - Engagement - Collective	7%	47%	56%	69%	44%
Civic Participation - Attention - Individual	29%	68%	67%	62%	56%
Civic Participation - Attention - Collective	14%	37%	67%	69%	44%

The types of individual civic action suggested varied substantially across the different sectors within the sample. Energy conservation, both regular and one-off, is the primary type of civic action not only in the energy sector, but also for government communicators (table 4.6). Many of the most common energy conservation actions are prototypical small actions, such as using energy saving light bulbs, turning down your thermostat and boiling less water in the kettle; *small actions* was a common repertoire in both sectors. The most common form of benefit of taking action in both sectors was financial. The Energy Savings Trust exemplified these trends, initially established by the UK government, it provides extensive advice about small actions framed as money savers, and was frequently cited as a source for actions by both energy and government communicators,

> *'Stop wasting energy; start taking action! This is the section to get you started on energy-saving. For quick fixes, look for ways to change your habits to reduce the amount of energy you use. For the future, find ways to improve your home that will save you money in the long run'* (Energy Savings Trust).

These two sectors are also the most likely to have the promotion of a specific product or policy as their primary objective, often rolling these conservation actions up into some kind of campaign or branding to give them a more cohesive identity (figure 4.18). A strong 'just the facts' information provision style is frequently used for these energy actions (another influence of the Energy Savings Trust), with attempts to add personality or humour being rare (figure 4.19). Even the minority of communicators in both sectors who diverge from this *small actions* informational framing of these actions substantially, use it as a reference point on the assumption the audience is familiar with it from public discourse.

Table 4.6 Primary Types of Individual Civic Engagement Actions

Primary Civic Engagement Individual	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
One-off Energy/Water Conservation	0%	47%	44%	31%	31%
Regular Energy/Water Conservation	7%	37%	22%	0%	18%
Eco-shopping/Eating	43%	0%	11%	23%	18%
Indirect Behaviour	7%	16%	11%	38%	18%
Recycling/Waste Reduction	43%	0%	11%	8%	15%
Personal Transport	0%	0%	0%	0%	0%
Eco driving	0%	0%	0%	0%	0%

Figure 4.18 Branding Small Actions   Figure 4.19 Small Actions Humour

e.on
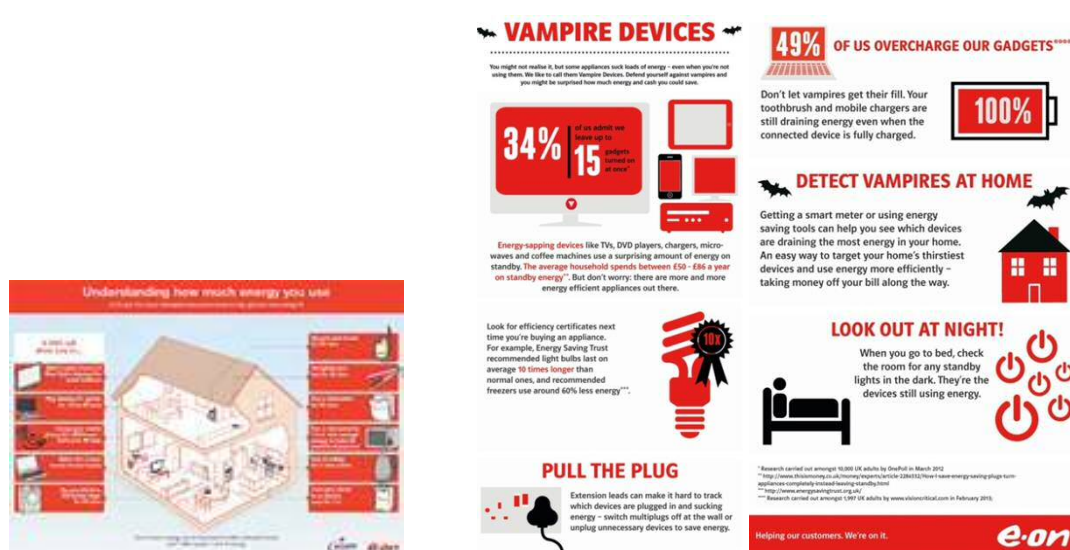
NGOs often focused on one-off energy conservation actions, but not the types of regular energy conservation actions most associated with *small actions*. Instead, indirect actions (via support for the NGO) and eco-shopping and eating were common focuses, reflecting that NGOs were the communicators who make least use of the *small actions* repertoire, and the most use of *green lifestyle* and *radical action*. Both these repertoires' actions are unified by an underpinning ethos, which emphasises doing the right thing morally. As a result, NGOs used more affective visual branding (figure 4.20), often with the environment as an underlying theme, in contrast to the infographic-based approach associated with energy and small actions. Influencing behaviour or actions generally was the most common campaign objective for NGOs, rather than promoting a specific policy or product, 'maybe we need to think about this differently and just… Start. Start thinking about alternatives, Start with what works for you, one start will lead to another and before we know it, we've all started' (Start). Energy and government communicators somewhat play down climate actions' environmental aspect, highlighting the financial benefits of discrete energy actions; while NGOs tend to emphasise their environmental aspect by framing them holistically through a moral ethos. The mobile sector sits in the middle of these two approaches.

Figure 4.20 Affective Branding

One Planet Home

The mobile phone sector had less integration of climate change into organisational messaging, reflecting the sector's weaker links to public discourse about climate change. The mobile sector had the lowest amount of climate content, an average word count of 4,086 compared to the sample average of 9,019. Particularly notable

were the very small climate sections of two of the market leaders within the sector, Three (155) and HTC (1,829), owned in Hong Kong and Taiwan respectively, where climate change has less public prominence in public discourse, partly as neither are part of the UNFCCC process (Chan 2009, Lo 2016).   These small sections used formal corporate responsibility reporting type language, 'we aim to continuously find innovative ways to reduce energy consumption, eliminate waste, and reuse materials to minimize our impact on the environment and develop a sustainable footprint' (HTC). In contrast, some of the other market leaders with larger amounts of climate content did, like communicators in other sectors, use the more informal tone and register of their website's main consumer oriented corporate voice, 'we're committed to doing all we can to protect the environment, and to helping others do the same' (O2).

It appears that the mobile sector as a whole is at an earlier stage of integrating climate change into its messaging, with their messaging being strongly influenced by a more general corporate environmental responsibility discourse. The environment was used as the primary heading by 50% of mobile communicators, but not by any other communicators across the rest of the sample. Similarly, the (generic) environment was identified as the primary beneficiary of action by 43% in the mobile sector, compared to 15% overall. The promotion of a positive corporate image, 'at Samsung, we believe it's our responsibility to do business in a way that enriches our planet' (Samsung), was the primary objective of 57% of mobile communicators. In contrast, promoting their corporate image was not the primary objective of any communicator in the other three sectors; they all focused on specific actions, products or policies related to climate change (figure 4.21).

Figure 4.21 Primary Campaign Objective
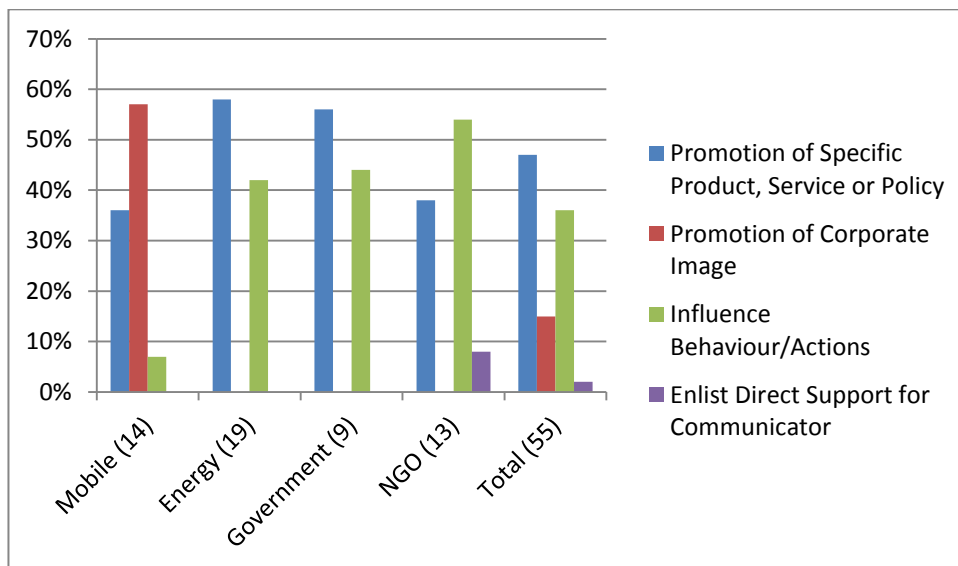
Climate discourse adopts far more collective framings than the corporate environmental responsibility discourse in the mobile sector. Climate change as a national challenge and opportunity is one of the framings that distinguishes climate discourse from environmental responsibility discourse. Overall, 55% of communicators identified national benefits to action, 'energy efficiency should also lead to a more secure, sustainable and affordable energy system in the UK, underpinning our long-term economic health' (CBI), but none in the mobile sector did. Mobile communicators also proposed the lowest levels of collective civic participation in (7% compared to 44% overall), and attention to (29% compared to 56% overall), climate change as an issue. The websites of mobile communicators with more content, who had often clearly put considerably more recent effort into this section of their websites than communicators with smaller amounts of content, were much closer to the overall sample discourse in many of these areas. Which suggests the mobile sector is in the process of transitioning from talking about climate change as part of a wider corporate environmental responsibility discourse, to adopting the type of more public oriented climate discourse already used in the other sectors that have been more publicly associated with climate change. A similar pattern of change was identified in the case of greenwash. Companies in sectors less publicly associated with climate change transitioned through the same patterns of usage of different types of greenwash over time as those in other

sectors who had begun integrating green claims into their advertising earlier (Terrachoice 2010, p16-17).

Sectorial interests have a significant influence on where emphasis is placed within the sample discourse. The three individual action focused repertoires (*small actions*, *green lifestyle* and *radical action*) are very common across the sample, but they are less frequently the primary repertoire in the two corporate sectors (figure 4.22). Corporate communicators are more likely than the other sectors to have one of the techno-optimism repertoires as their primary repertoire (figure 4.23). Techno-optimism is used to explain both the efficacy of their own actions, and the actions they suggest to the public; 'as Britain's brightest energy company, we're dedicated to pursuing new ways of producing green energy and promoting its use among our customers – we've called it New Energy' (nPower). The focus of corporate communicators on individual action does not necessarily translate in to them proposing the greatest level of personal agency. These individual actions often take place in the context of, or rely on, larger technological changes.

Figure 4.22 Individual Action Repertoires
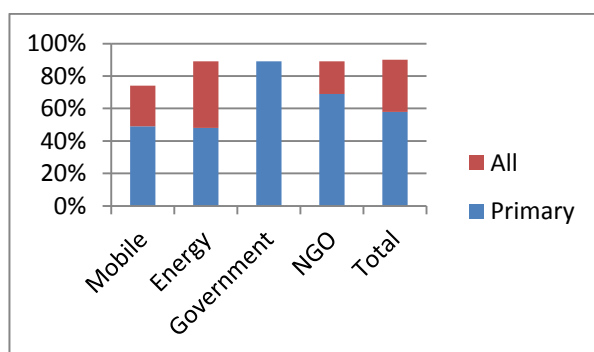
Figure 4.23 Techno-Optimism Repertoires
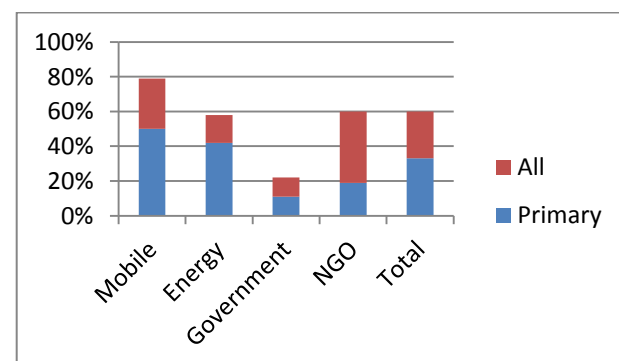
There were also substantial differences in the extent and types of impacts identified in different sectors. Overall, the sample discourse was far less likely to mention negative impacts (45%) than the benefits of action (100%), and the impacts tended to be more distant from the audience, whereas the reverse was the case for the benefits. These trends were not fundamentally reversed in any of the sectors, but impacts were far more likely to be mentioned by government (78%) and NGOs (67%), than either the energy (32%) or mobile (21%) sectors. The types of impacts mentioned by government and NGOs are quite different. Government communicators were more likely to identify threats at the level of the nation (56% against 20% overall), 'average annual temperatures across the UK may rise by between 2° and 3.5°C by the 2080s (…) high summer temperatures will become more frequent and very cold winters will become increasingly rare' (Bridgend Council), and the local community (44% against 15% overall), 'as a typical valleys area, this (climate change) would mean that we are likely to suffer from more heavy rainfall events and flooding, but less heavy snow and hard frosts' (Rhondda Cynon Taff Council).   Their framing of impacts at these levels tends to eschew global alarm for more sober local concern, 'we know that we are facing some amount of climate change and that this will have an impact on life in Wales (…) the negative impacts of climate change are expected to considerably outweigh the positive' (Welsh Government). Government communicators are also less likely to identify benefits in terms of climate action being either morally the right thing to do (56% against 73% overall) or in terms of general environmental benefits (44% against 75% overall). Overall, it appears that governmental communicators are more willing to identify impacts than corporate communicators, but avoid strong environmentalist arguments about climate change as a moral or global threat, preferring to present climate action as a practical response to a more local problem.

NGOs, in contrast, were more likely to link the impacts of climate change to the more distant areas of concern often associated with environmentalism. Including impacts for: the developing world (38% against 15% overall), 'despite doing the least to cause it, poor people are experiencing the full force of climate change' (Oxfam); humanity (38% against 22% overall), 'climate change is one of the most

important challenges facing the world. It is not simply an environmental problem: it has profound implications for the economy and for the wellbeing of people here in Wales, and across the world' (Cardiff Transition); and non-human nature (31% against 16% overall), 'tens of thousands of new wells in Lancashire alone, scarring the natural landscape wherever shale gas is exploited' (Greenpeace). This environmentalist framing was also reflected in NGOs greater use of alarm repertoires (47% against 17% overall), 'climate change is impacting people here and now, but the consequences will be even worse in the future if action is not taken' (Stop Climate Chaos), and identifying doing the right thing morally as being the primary benefit of taking action (46% against 20% overall), 'encouraging the people of Wales to take positive action and help protect an area of rainforest equivalent to the size of our nation' (Size of Wales). NGOs use the impacts of inaction quite differently to government, as part of a representation of climate action as a moral response to a global environmental crisis.

Overall there was an almost even divide between communicators using informational appeals and those using transformational appeals (table 4.7). The most common type of transformational appeal (and most common overall) was the brand image appeal, which makes an emotional link between the communicator and climate action. This appeal does not require climate, or the environment, to be the main value associated with the brand, so is available to all communicators, not just the environmental ones; 'at the core of who we are is our GreenHeart™ – our commitment to being ethically sound and environmentally responsible – inside and out' (Sony). The most common type of informational appeal was a generic one, based on information about climate change generally, 'it's not easy being green – but our energy saving advice is a good place to start. We can show you how to reduce energy consumption, use energy more efficiently or simply become more energy aware at home' (EDF). These were the two most common types of appeal used in the energy sector. In the mobile sector the most common type of informational appeal was testable, rather than generic. This reflected a focus on claims about their products being environmentally responsible, rather than promoting climate actions, 'from reporting our entire carbon footprint to finding

ways to reduce that footprint, Apple takes a comprehensive approach to environmental responsibility' (Apple). Government communicators were far more likely to make use of informational appeals, while NGOs were far more likely to make transformational appeals, reflecting their framing of climate change as a practical problem or a moral challenge respectively.

Table 4.7 Types of Appeal

Appeal Type	Mobile (14)	Energy (19)	Govern ment (9)	NGO (13)	Total (55)
Informational - Comparative	0%	0%	0%	0%	0%
Informational - Unique Selling Proposition	7%	11%	11%	8%	9%
Informational - Testable	29%	0%	33%	0%	13%
Informational - Hyperbole	7%	0%	0%	0%	2%
Informational - Generic	0%	37%	33%	15%	22%
Informational – Subtotal	*43%*	*48%*	*77%*	*23%*	*46%*
Transformational - User Image	14%	5%	0%	15%	9%
Transformational - Use Occasion	0%	5%	11%	8%	5%
Transformational - Brand Image	43%	42%	11%	46%	38%
Transformational -Generic	0%	0%	0%	8%	2%
Transformational - Subtotal	*57%*	*52%*	*22%*	*77%*	*54%*

The corporate communicators are the centre of gravity for the action discourse in advertising as a whole. Individual civic engagement actions are the defining form of action for the discourse as a whole; they are the most common form of action in each sector, but it is in the corporate sector that their dominance is greatest. It is also in the corporate sector that the logic that underpins this type of action is most clearly expressed; an overwhelmingly positive focus on the benefits of action, primarily the financial benefits of specific actions, with the generic environment used as a secondary theme to unify these actions, informed by a techno-optimistic outlook. The mobile sector illustrates the roots of this approach in a corporate environmental responsibility discourse, focused on communicators own

environmental performance, rather than climate change as a public issue. Government and NGOs both bring more collective, and in the case of NGOs more political, framings to the action discourse, which are also more likely to warn of the risks of inaction. For the government communicators this comes from an emphasis on climate change as a practical national challenge requiring a collective response. NGOs emphasise the moral element of climate change, and the need for this environmental ethos to inform climate actions. In both sectors, however, individual and financial benefits are still more common, reflecting the dominance of the corporate sector's framing of climate actions.

4.6 Summary

My content analysis of the advertising sample identified a climate action discourse that all the sample communicators were part of. This action discourse is underpinned by all communicators adopting the resolve consensus that (i) climate change is a real problem, (ii) it is caused by humans and (iii) that it is solvable by human action; allowing communicators to focus on talking about climate actions. The action discourse also attempts to avoid controversial areas, associated with political polarisation, around climate science and bad news that are far more common in wider public discourse about climate change. This creates an optimistic discourse focused on individual civic engagement actions as the way to tackle climate change. The environment serves as a unifying secondary theme for the action discourse, but it is not a discourse that is primarily motivated by environmentalism. These features are common across all sectors, but are strongest in the corporate sectors, suggesting that corporate communicators exert the greatest influence on the action discourse. A variety of different framings of climate action are still possible within the action discourse; the next chapter describes the five most common linguistic repertoires in the advertising sample.

5 Media Analysis: Linguistic Repertoires

This chapter describes in detail the five most common (used by at least five communicators) primary linguistic repertoires identified in the sample. The main linguistic and visual features of each repertoire are illustrated with quotes and images from the sample. Every site contained elements of more than one repertoire, so not every quote or image within a site is part of that site's primary repertoire, conversely elements of each repertoire could be found in sites in which it was not the primary repertoire. All the quotes and images are prominent examples drawn only from sites where the repertoire they are part of was the primary repertoire.

These repertoires are based on Ereaut and Segnit (2007), but have been modified to reflect changes since then and two of the repertoires, *green lifestyle* and *radical action*, are new ones created to reflect developments in the discourse. Sites using the same primary repertoire do not all give the same weight and prominence to each element of the repertoire, but they are recognisably part of the same framing of climate action.

Table 5.1 Primary Linguistic Repertoires

Linguistic Repertoires Primary	Mobile (14)	Energy (19)	Govern ment (9)	NGO (13)	Total (55)
Small Actions	14%	37%	44%	8%	25%
Establishment Techno-optimism	50%	16%	11%	8%	22%
Radical Action	14%	16%	22%	23%	18%
Green Lifestyle	21%	0%	11%	38%	16%
Non-establishment Techno-optimism	0%	21%	0%	8%	9%
Other	0%	11%	11%	15%	9%

5.1 Small Actions

Small actions was identified by Ereaut and Segnit (2007) as the dominant repertoire about climate change at the time, and remains the most common in the study

sample. However, it would appear that its dominance is being eroded. Although it remains by far the most common repertoire, featuring in 60% of all websites, while no other repertoire appeared in more than 40%, it is less dominant as a primary repertoire (table 5.1). This suggests that, although many of the characteristic features of the *small actions* repertoire remain common throughout the discourse, its overall dominance in framing the discourse is being challenged. In particular, the development of two new individual action focused repertoires, *green lifestyle* and *radical action*, is suggestive of moves away from *small actions*. The essential argument of *small actions* remains that 'many small actions will have a cumulatively significant effect' (Ereaut & Segnit 2007, p.16).

Communicators

(Vodafone, Envirophone, Scottish Power, EDF, SSE, OVO Energy, Co-Operative Energy, Honeywell, Energy Savings Trust, Wales Carbon Footprint, Bridgend Council, Monmouthshire Council, Neath Port Talbot Council, Size of Wales)

Small actions was used by a wide range of communicators, including both market leaders and green alternatives in both corporate sectors. The prevalence of *small actions* across all sectors reflects that it remains something of a default approach to climate messaging, which often leads to a very generic message with little to identify it specifically with the communicator. This was something that was particularly evident for government communicators. Tthe councils who used *small actions* as their primary repertoire were those that had integrated few or no elements of local identity into their site. However, not all *small actions* sites were generic. Some communicators had integrated their identity into their own distinct version of *small actions*, including Vodafone and Wales Carbon Footprint among others.

Tip Lists

This repertoire frequently features tip lists of actions, often domestic energy consumption based, that individuals can take. Their familiarity in public discourse means these actions are often referred to as being obvious or common sense.

'Changing your habits may seem trivial, but the more changes you make, the more you'll save on energy costs. Here are our top ten money-saving tips – obvious, yes, but they will save you money' (Energy Savings Trust)

'Here are our top tips for saving you money and valuable energy. Most of them are common sense, but there might still be one or two you hadn't thought of...' (Scottish Power)

'Top tips for energy efficiency. Follow these tips and you'll cut your bills, and be kind to the environment too!' (Bridgend Council)

'Some tips for how you can save money, reduce your carbon footprint and get your home ready for climate change' (Carbon Footprint Wales)

Cumulative Effect

The cumulative effect of these actions is framed as being the result of a common effort in two main ways.

Common Effort (By communicator and audience)

Firstly, small actions are framed as part of a joint effort with members of the public and the communicating organisation both taking action.

'Looking after the environment makes sense to our customers, and it makes sense to us.' (Vodafone)

'Going greener together' (Vodafone)

'Helping you do your bit' (OVO Energy)

'We've all got a responsibility to look after our local communities, and taking action to reduce our carbon footprint is an important way to do that' (Wales Carbon Footprint)

'If we are to create a more sustainable, happier and healthier world, both individuals and organisations need to change their behaviour and practises to minimise their environmental footprint' (Bridgend Council)

> *'Small steps (…) can mean big results for Wales' Carbon Footprint'* (Neath Port Talbot Council)

Common Effort, but not too much (Mass Participation)

Secondly, the efficacy of action is framed as the result of mass participation that does not require significant or onerous amounts of effort by any one person. This has the dual benefit of making action seem more accessible and appealing to the individual, while lending credibility to the efficacy of small actions via the cumulative effects of mass participation.

> *'We think that it's more important to encourage many to do a little, rather than rely on a few to do a lot'* (OVO Energy)

> *'Our customers are all doing their bit to fight climate change without actually having to do anything'* (OVO Energy)

> *'There are lots of communities in Wales taking action to reduce their carbon footprint'* (Wales Carbon Footprint)

> *'Climate change is the greatest environmental challenge facing the world today… The choices we make now will have a direct impact on the environment that we leave behind for our children and grandchildren but by making small changes to the way we live we can make a big difference to our environment now'* (Neath Port Talbot Council)

> *'We can stop the effects of climate change by making a few simple changes to our lifestyles'* (Neath Port Talbot Council)

Multiple Benefits

Small actions also continues to be characterised by 'the conflation of ethics and self-interest' (Ereaut & Segnit 2007, p.16).   Generalised statements present actions as benefiting both the environment and the individual, with these two interests framed as coinciding unproblematically.

> *'Better for people, better for the planet'* (Vodafone)

'Cheaper, Greener, Simpler' (OVO Energy)

'Save energy, save money, save the planet' (Co-operative Energy)

'Comfort, control and efficiency' (Honeywell)

'We can save money, be healthy and tackle climate change at the same time' (Wales Carbon Footprint)

'A better chance for good health, savings on fuel bills and reduce the impact on the environment' (Bridgend Council)

Low Barriers to Action

With no fundamental conflict between self-interest and being a good environmental citizen, *small actions* frames the main barriers to be overcome in terms of individual choices, with no reference to wider structural constraints. These barriers are typically presented as relatively simple to overcome, requiring just a small amount of information and possibly practical help. Overcoming these barriers is identified as having ongoing benefits to the individual, and no real downside.

'Help(ing) you save money and energy wherever possible' (Scottish Power)

'It's not easy being green – but our energy saving advice is a good place to start' (EDF)

'For quick fixes, look for ways to change your habits to reduce the amount of energy you use. For the future, find ways to improve your home that will save you money in the long run' (Energy Savings Trust)

'Some of the changes are easier than others, but you can have fun and you should see some real benefits' (Wales Carbon Footprint)

'Reduce your carbon footprint and discover how easy it is to reach the countryside (…) and the valleys more sustainably' (Neath Port Talbot Council)

'It's easy to reduce the waste we create at home. If we waste less, we save our money, resources and our environment' (Neath Port Talbot Council)

'There are many simple things you can do to become a smart shopper. As well as becoming more environmentally aware you could also save money' (Neath Port Talbot Council)

Images

Websites with *small actions* as their primary repertoire had relatively few images, possibly because of the mundaneness of many of the actions most associated with it.

Actions and Icons

Images often reflected the mundaneness of this repertoire, with photographs of domestic items used for small actions providing little visual interest. Often icons were used as visual shorthand for these actions, or for associated concepts for example carbon footprints, calculators and the recycling logo.   The use of icons rather than photographs in this case is potentially both visually more appealing and creates a greater sense of *small actions* as a coherent approach to climate change, rather than a list of ad-hoc actions.

Wales Carbon Footprint

EDF   Neath Port Talbot Council

Scottish Power

Vodafone   Envirophone   Vodafone

Neath Port Talbot Council

Household Setting

The use of cross sections of houses showing actions that can be taken around the home (Ereaut & Segnit 2007) remains common. As with icons, it can help to create a greater sense of *small actions* as a coherent approach through the use of common

visuals. Some sites have also developed this by taking (often superficial) advantage of web features in 'interactive' guided house tours.
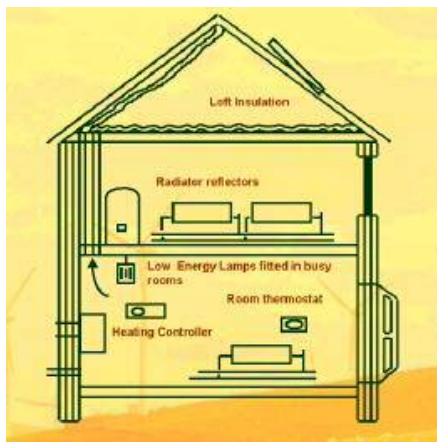
Bridgend Council

EDF
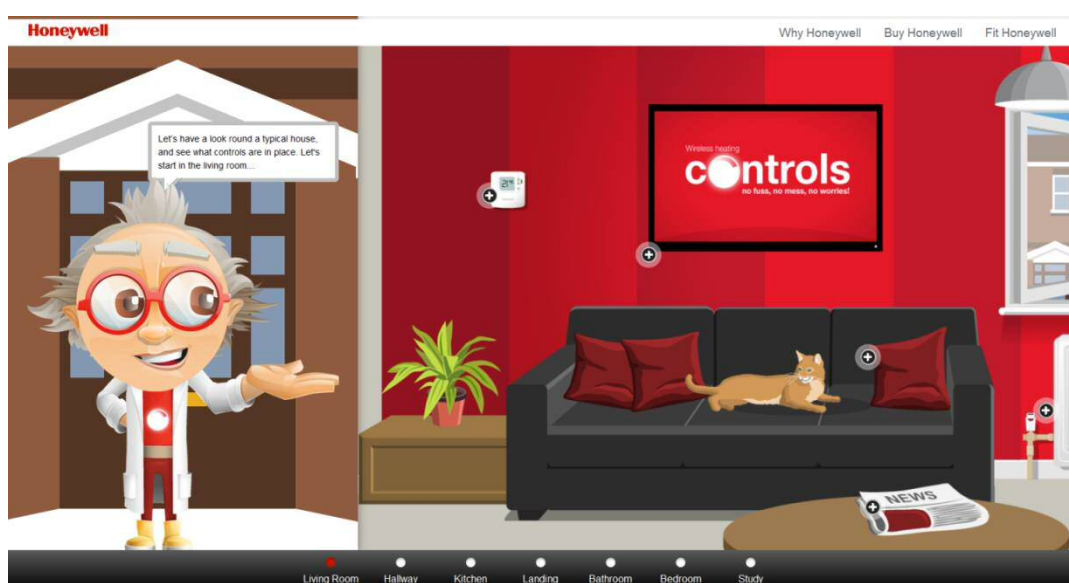
 Honeywell

Family Actions

Showing families taking these actions presents them in a more appealing way, highlighting the theme of domesticity. This also draws on existing associations between concern for the environment and concern for your children's future, to add a more value-oriented appeal to a repertoire that is strongly informed by appeals to self-interest. In the final image, the family is combined with a model house, reflecting how this has become a familiar icon of energy saving actions.

Wales Carbon Footprint   Wales Carbon Footprint

Wales Carbon Footprint   Honeywell

Wales Carbon Footprint

These images also demonstrate the conflicting representations of technology in this repertoire. In one image there is an explicit forbidding of the use of television, while in another a smart energy monitor is foregrounded as a solution. This reflects an unresolved contradiction in wider public discourse between disapproval of the wasteful proliferation of modern gadgets and their fragmentary effect on family life, and positive views of smart technologies as increasing efficiency and bringing people together.

Limited use of the environment

Images drawing on the positive attributes associated with the natural world and/or renewable energy are rare in comparison to the other primary repertoires. The few images that are used tend to be very generic, with little connection to specific locations or people to generate any sense of emotional attachment.
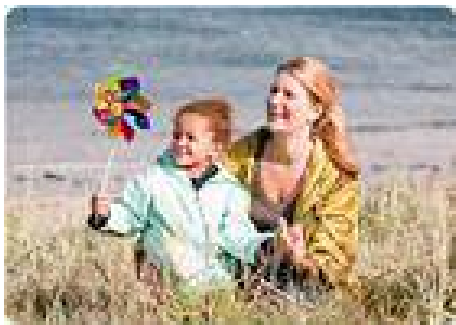
Scottish Power   Neath Port Talbot Council

5.2 Establishment Techno-Optimism

Establishment techno-optimism has undergone some changes since 2007, when it was described as 'arguably out of place in the consensus camp' due to its 'evasive generalism' (Ereaut & Segnit 2007, p.18). Although now more firmly in the consensus camp, it remains characterised by an overall message of reassurance that major governmental and business actors are driving technological changes that will solve the problems of climate change, minimising the need for public action.

Communicators

(EE, Three, Rethink, Apple, Samsung, HTC, Nokia, British Gas, e.on, nPower, Anglesey Council, CBI)

Establishment techno-optimism was the repertoire used by the majority of big corporate communicators. Nine out of twelve primary users of this repertoire were market leaders from the mobile or energy sectors. The CBI are an industry body, phone recycler Rethink's business model is based on corporate partnerships, while Anglesey Council's framing was strongly influenced by the importance of the nuclear power industry to the local economy.

General Statement of Commitment (organisation only)

Establishment techno-optimism still involves significant use of generalised statements of commitment, and unlike *small actions* does not typically ask for, or mirror, any public commitment to act.

> *'We care about the environment and actively manage our impact on it'* (EE)
>
> *'We aim to manage our business in a sustainable way'* (Three)
>
> *'Minimize our environmental impact as we bring products to market'* (HTC)
>
> *'We're determined to integrate sustainability into everything we do'* (Nokia)
>
> *'Sustainability isn't merely an exercise in damage limitation – it's an opportunity to make a real difference, both to people and to our planet'* (Nokia)

General (often Quantified) Targets

While *establishment techno-optimism* remains far less specific about actions than *small actions*, there is a trend towards attaching measurable benchmarks to organisational goals.

> *'We're devoted to reducing our carbon emissions and our target is a 50% drop by 2015, compared to our 2010 baseline'* (EE)

> *'We have set a single cross business target to reduce our carbon footprint by 30% by 2015'* (Three)

However, this is certainly not always the case.

> *'We aim to continuously find innovative ways to reduce energy consumption, eliminate waste, and reuse materials to minimize our impact on the environment and develop a sustainable footprint'* (HTC)

Future Positive

Sweeping rhetorical claims about the solutions commercial technology will provide in the future remain at the core of this repertoire.

> *'With over 1.3 billion customers using Nokia devices, we're in a unique position to effect positive environmental and social change around the world'* (Nokia)

> *'We love the future – it's what our strategy is all about'* (Nokia)

> *'It's happening/future is here now'* (British Gas)

> *'At the forefront of energy research and development, production and servicing, bringing with it potentially huge economic rewards'* (Anglesey Council)

> *'For UK business, climate change is no longer a threat to be feared, but an opportunity to grow the economy and lead the world – and by tackling it, we can make energy safer and more plentiful for all'* (CBI)

Smart Living

A notable addition to this repertoire is the emergence of smart technology as a major business opportunity. Smart technology can be linked more directly to people's day-to-day life than the large scale energy technology most associated with this repertoire, and taps into the current cultural zeitgeist.

> *'Think better, think brighter, think smarter'* (Rethink)

'Commitment (…) is critically important as consumers seek to balance their desire for cutting edge technology while pursuing a greener way of life' (Samsung)

'Making innovative products in a responsible manner – respecting people, the communities in which we operate and the environment' (HTC)

'Giving insight and information to help you live smarter' (British Gas)

Energy Saving

Smart technology also provides an opportunity to link *establishment techno-optimism* with (and commercialise) the familiar home energy saving actions associated with *small actions*.

'Take control of your energy use, use no more than you need, energy as it should be, join many customers taking control of energy' (e.on)

'That's why we're committed to encouraging customers to use less!' (N.Power)

It should be noted, however, that this does not typically reflect acceptance of the need for absolute cuts in energy use.

'The UK which has legally binding carbon targets faces a tough challenge: how to keep the lights on and bills down in a low carbon way' (CBI)

Images

Generic Environments

The use of generic stock images of the environment was most prevalent in this repertoire, strongly reflecting the trend in advertising and wider public discourse of the environment being 'abstracted and recontextualized through the corporate consultancy language of 'vision' and 'innovation' rather than depicted in concrete logical terms' (Hansen & Machin 2008, p.279). This type of representation is a good fit with the overall logic of *establishment techno-optimism*.

Rethink

Samsung

Nokia

Some images take this process of abstraction further, with greater emphasis on connotative symbolic elements in constructing their meaning, and less on their depictions of nature.

Samsung

Nokia

Icons

This trend towards symbolic representation in *establishment techno-optimism* is also seen in its heavy use of icons.

Rethink

Apple

Often these icons are used as part of a quantification of environmental impacts. This use of icons is where *establishment techno-optimism* can appear to shed its 'evasive generalism' and become more tangible. Nevertheless these icons can also be an effective way of framing these quantifications favourably, as the apparent completeness of visual representations can make this framing less easy to detect than in written text.

Nokia   Apple   Nokia

Smart Technology

This quantification of climate actions is also made available to the public via smart technology. In doing so it places the technologies that underpin this repertoire more tangibly in the hands of the public, potentially boosting the repertoires credibility. However, this introduction of agency is not without its tensions. Although these representations emphasise ease of use and quality of life benefits, communicators are also aware of the risks of this technology being perceived as taking over people's lives, rather than enhancing their control of them.

Samsung

British Gas   Samsung

More broadly, smart technology is also shown to be embedded in the (heavily managed) environmentally friendly hi-tech homes of the future. The representation of these homes tends to be less concrete than those in other repertoires, typically depicting possible futuristic homes rather than modifications to existing ones. However, some communicators are attempting to close this gap. British Gas also gave significant prominence to a series of videos showing smart technology being applied to an existing house, rather than being built into a future one.

British Gas

Management of the Environment

Establishment techno-optimism presents a strongly anthropocentric vision of environmental management. In this repertoire, the ability of humans to control all aspects of the environment successfully is unquestioned, and the environment itself is viewed in a highly instrumental manner. The fungibility of both people and environments that this viewpoint implies is reflected in the genericness of both the environment(s) being managed and the people managing them in abstract hi-tech work spaces.

Rethink

Environment safety and health management system

Samsung

Nokia even provides children with the opportunity to practise this type of management themselves.
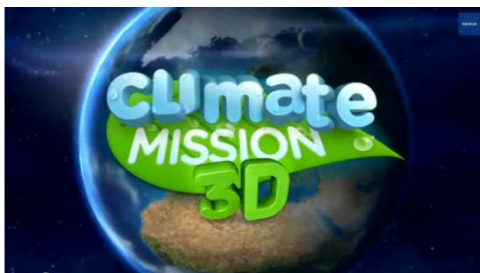
Corporate Facilities as exemplars

When specific environments do occur in this repertoire it is nearly always in the context of the company's buildings being used to exemplify their commitment to this type of technologically driven environmental management. These exemplar corporate headquarters can also be used to demonstrate the use of smart technology.

Apple   HTC   Samsung

Renewables

Like many of the repertoires, *establishment techno-optimism* draws on positive public views of renewable energy sources. These representations emphasise renewables as large-scale transformations, through the scale of the installations and/or by combining multiple technologies in one image. Where people do occur in these images they are most commonly those installing the technology (usually employed by the communicator). These representations fit with the repertoire's emphasis on large scale solutions provided by establishment actors.

CBI   Samsung

Nokia

CBI   e.on

Quality Standards

Reflecting an awareness of potential public scepticism about its claims, *establishment techno-optimism* generates a proliferation of environmental standard logos for the technology it promotes.

Samsung

5.3 Radical Action

The *radical action* repertoire was not identified by Ereaut and Segnit in 2007. This repertoire reflects frustration with the limitations of the current consensus and urges more radical action, based on 'a normative shift (…) from small steps in environmentally friendly behaviour to holistic and more radical lifestyle changes' (Höppner 2010, p.992).

Communicators

(Fairphone, Make it Better, Centre for Alternative Technology, Co-Operative Community Energy, Welsh Government, Cardiff Council, Cardiff Transition, Green Valleys, Oxfam)

Radical action communicators were dominated by campaigning NGOs, including several with a very specific local focus. The two government communicators who used this repertoire were the most explicit about emphasising the scale of the threat from climate change and also had a strong focus on the importance of community agency.

Fundamental Change Required (to consumer economy)

The audience is often assumed to already be aware of the need for fundamental change, to be frustrated that these changes are not taking place, and to feel that the common actions associated with the *small actions* repertoire are inadequate given the scale of the problem. This repertoire explicitly contrasts radical shifts in how we live and work with current unsustainable ways of living.

> *'Passive consumers when it comes to energy, at the mercy of wholesale gas price rises and large profit-making providers'* (Co-op Community Energy)

> *'Cardiff today is a three planet city (…) this is clearly unsustainable, and our aspiration is for Cardiff to be a one planet city by 2050'* (Cardiff Council)

> *'We all know these issues, we see them on the news, hear our politicians discuss them, read about our scientists working to better understand them,*

yet we see the situation become worse and feel more and more helpless to act' (Green Valleys)

This radical economic shift can also be framed more positively, by focusing on the transformative benefits of action, rather than the short-comings of current solutions.

'Together, we're opening up the Supply Chain, and redefining the Economy – one step at a time' (Fairphone)

'The Make It Better campaign is all about improving the way that our products are made. 'Love the product, love the ways it's made'' (Make it Better)

'Confronting the issues of climate change and peak oil can leave people feeling depressed, guilt-ridden and powerless (…) we believe that acting as a community can be less daunting and more enjoyable' (Cardiff Transition)

Fracking often serves as a pantomime villain for *radical action* to define itself against; a bad transformation which, unlike the status quo, does not imply any complicity from the audience.

'As part of this campaign we're calling for a moratorium on the development of shale gas and 'fracking' in the UK' (Co-op Community Energy)

Revolution

In contrast to *small actions*, efficacy is not the result of the cumulative impact of individual actions, but stems from a transformative collective effort.

'Rethinking the future' (CAT)

'We are calling for a Clean Energy Revolution' (Co-op Community Energy)

'We have an opportunity to decide what a low carbon and resilient Wales could look like' (Welsh Government)

'Wales was a leader in the industrial revolution. Now we want Wales to lead the way in reducing carbon emissions and preparing for climate change' (Welsh Government)

'Being a one planet city is all about making sure that Cardiff is an enterprising, prosperous, healthy, happy, clean and green sustainable city in the future' (Cardiff Council)

'Becoming One Planet Cardiff will be about responding to the big challenges and grasping the big opportunities of the 21st Century' (Cardiff Council)

'It is an initiative for and by the people of Cardiff. Its aim is to plan how we can create a positive future in the face of these two environmental challenges, resulting in a city which is low energy, low carbon, sustainable, healthy and happy' (Cardiff Transition)

Community Action

Radical action anchors people's agency in bringing about this revolutionary change in communities and society.

'By buying this phone, you're reconfirming that collective action counts and becoming part of a community that has the power to fuel change' (Fairphone)

'Inform, inspire and enable contemporary society to embrace the changes required to rethink the future' (CAT)

'A dramatic increase in the number of communities democratically owning, controlling and benefiting from their own renewable energy projects' (Co-operative Community Energy)

'We can do something about climate change, if all of us work together. As a society' (Welsh Government)

'This will require (…) talent, imagination, enterprise and invention (…) these are qualities the people of Cardiff have in abundance' (Cardiff Council)

> *'People across the UK and further afield are taking up the challenge of creating, an alternative future for their community'* (Cardiff Transition)

> *'Working together we can bring real and lasting benefits to the places we call home'* (Green Valleys)

> *'The Green Valleys believe that we can harness the potential of our landscape and tap into new sources of energy (…) retaining and reinvesting the income that would otherwise disappear from our rural communities through our utility bills and at the filling station'* (Green Valleys)

Individual Responsibility

People's agency is highlighted less frequently outside of these collective contexts, and when it is, rather than focusing, as *small actions* does, on the potential efficacy of individual actions, *radical action* emphasises the responsibility and/or obligation on individuals to act.

> *'You can change the way products are made, starting with a single Phone'* (Fairphone)

> *'You are the privileged, informed individual that has the ability to be part of the solution'* (Fairphone)

> *'We should all think about the impact the things we buy have on the world'* (Make it Better)

> *'Becoming One Planet Cardiff will rely on us all becoming One Planet People'* (Cardiff Council)

Global Fairness

The need for global fairness plays a greater role in *radical action* than in any of the other four dominant repertoires; however, it is still a relatively minor element.

> *'Cardiff today is a three planet city (…) this is clearly unsustainable, and our aspiration is for Cardiff to be a one planet city by 2050'* (Cardiff Council)

> *'Despite doing the least to cause it, poor people are experiencing the full force of climate change'* (Oxfam)

> *'We are still campaigning for a fair and binding global deal'* (Oxfam)

Already Happening

Radical action uses different types of actions that are already taking place in a different way than the 'change is already happening' repertoire. It presents exceptional actions that demonstrate the potential widespread applicability of its ambitious message, whereas the 'change is already happening' repertoire presents more widespread actions in order to establish them as normal.

> *'We also want to celebrate the **positive steps** companies are taking, and how **innovative design** can reduce the environmental impact of our favourite item'* (Make it Better)

> *'So much happening in Cardiff, really interesting and innovative long term projects'* (Cardiff Transition)

Images

Planning/Vision

Radical action uses images of a very different type of environmental management to that found in *establishment techno-optimism*. Planning documents tend to be hand drawn in contrast to the futuristic technological style of *establishment techno-optimism*. Generic corporate planners and backdrops are replaced with less obviously staged photographs of 'real people' located in identifiable places, reflecting the repertoire's emphasis on community participation.
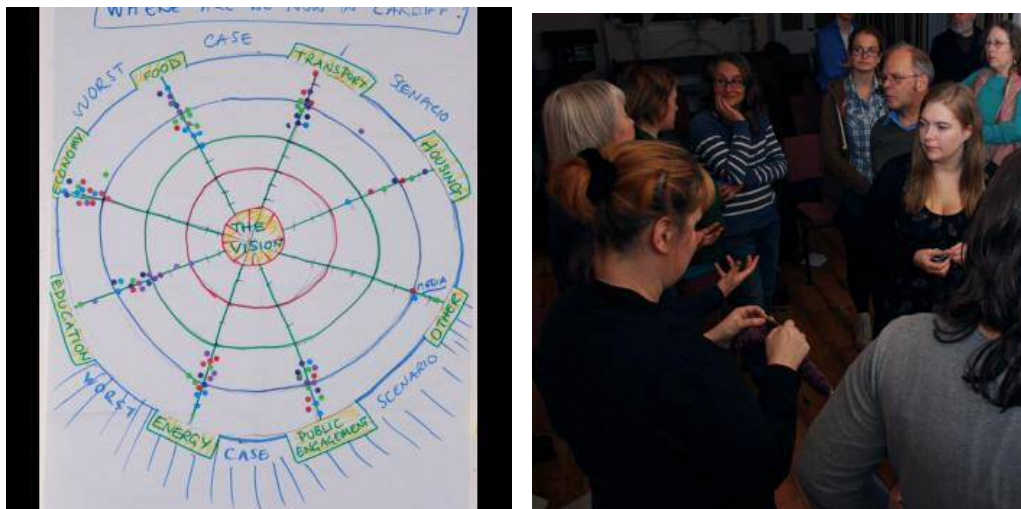
Cardiff Transition

Co-Operative Community Energy

Community Action

Probably the most common type of image in this repertoire is the community action group shot. Most frequently participants are either engaged in the activity, or facing the camera inviting the audience to join in.

Green Valleys   Welsh Government

Cardiff Council   Cardiff Transition

The two most common contexts for these groups shots are: firstly, a community owned reneawable energy facility, drawing on positive public perceptions of renewable energy; and secondly, a group shot with a politician, celebrating some kind of achievement, rather than presenting a petition. Celberating achievements is a better fit with *radical action* themes of taking personal responsibility for action, collective agency and promoting exemplar actions that are already taking place, than petitions which ask someone else to take action in the future.

Co-Operative Community Energy

Co-Operative Community Energy

Suite of Actions

Montages are used to represent actions as part of a holistic lifestyle change, rather than as an itemised list of options, as in *small actions*.
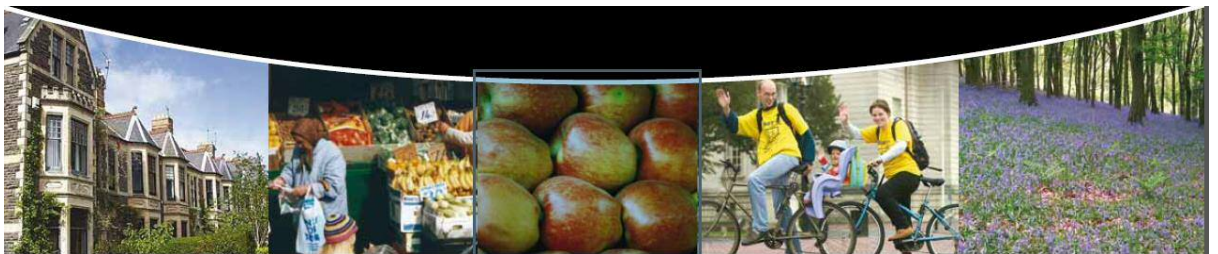
Cardiff Council

Common individual actions, such as cycling, are placed in a more collective context.

 Cardiff Council

Proliferation of Logos

Radical action generates a proliferation of logos to brand these plans and visions for community action. This branding serves to create an identity that clearly differentiates these *radical action* programmes, from the more piecemeal approaches found in other resolve repertoires.

Make it Better   Co-Operative Community Energy

Cardiff Council

Cardiff Transition

Negative Consequences

There are few images of the negative impacts of climate change in the sample; most of those which do occur are in *radical action*, but these are not a major part of its visual repertoire. They are often in distant places.

Co-Operative Community Energy

Welsh Government

Particularly when the images show people suffering these negative impacts, those people are from the developing world.

Make it Better

Often these images seek to represent these people's interests and/or involve them in radical action.

Co-Operative Community Energy   Fairphone

These images are also sometimes linked to images of traditional environmental protest, including the identification of opponents associated with the 'David and Goliath' repertoire (Ereaut & Segnit 2007), but *radical action* mainly avoids this type of oppositional representation. It wants to radically change the system, but not to fight it.

Oxfam

Located in Place

More than in any of the other main repertoires, the images of environments that appear in *radical action* are specific, rather than generic places, and include the people and communities who live there. They also include both rural and urban locations.

Cardiff Council

Green Valleys

5.4 Green Lifestyle

Green lifestyle is an individual action focused repertoire that sits between *small actions* and *radical action*.

Communicators

(O₂, Green Mobile, Sony, Rhondda Cynon Taf Council, One Planet Home, 10:10, TUC, Climate Week, Green Guide)

The majority of *green lifestyle* communicators were NGOs, largely those from the consensus end of the strategy spectrum.

Small actions as bridge to larger context

Green lifestyle advocates individual actions, but acknowledges that they will not be enough on their own, framing them as a catalyst, and/or creating pressure, for wider changes.

> *'Get Involved. Start Small, Think Big'* (O₂)
>
> *'What makes a GreenHeart™ Many small steps. One giant leap'* (Sony)
>
> *'This ensures that we're not only cutting emissions directly but also showing politicians that we're ready to tackle climate change right now'* (10:10)
>
> *'But we can't do it all ourselves. We need the people in power to tackle the stuff we don't control directly: from boosting local bus services to cleaning up the national grid. That's why 10:10ers work together to push for common-sense policies that will bring down the UK's emissions and make it easier for all of us to do the right thing'* (10:10)
>
> *'While we need policy changes from government to tackle the big issues, we can make changes to our own behaviour that will put us on the path to sustainable living'* (Green Guide)

 (10:10)

Individual part of larger collective context

The efficacy for individual action doesn't come, as in *small actions*, only from the cumulative impact of self-interested actions; *green lifestyle* emphasises the catalysing effect of collective effort.

> *'People's ideas and our support, draw on collective ingenuity of connected millions'* (O$_2$)

> *'The biggest contribution we can make to a sustainable future is as agents of change'* (O$_2$)

> *'Rhondda Cynon Taf Council needs all its residents to Love Where They Live and join the fight against waste in order to keep our County Borough a clean, green place for all to enjoy. It is proud of the effort so many people, from all walks of life, go to'* (Rhondda Cynon Taf Council)

> *'Here's the plan: We all cut our carbon by 10% in a year. You, me, that bloke walking his dog outside. Your work, your kids' school, the council, the church, the chip shop. Everyone'* (10:10)

> *'Climate Week is Britain's biggest climate change campaign, inspiring a new wave of action to create a sustainable future'* (Climate Week)

Think Green

This collective effort is informed by a green ethical thread that runs through the repertoire. This green ethic is not presented as an imperative that must be followed, but as informing a way of living that is desirable for its own sake.

> *'If we think boldly, involve our customers, offer bite-sized ways to be more sustainable and use our technology and size to inspire change we can make a difference'* (O$_2$)

> *'It's all about the environment here in Rhondda Cynon Taf and the Council is committed to encouraging everyone who lives, works and visits our County Borough to think GREEN!'* (Rhondda Cynon Taf Council)

> *'We want to provide the greatest array of green options possible so content will vary from light green to dark green. Inevitably, some inclusions will be greener, more sustainable and fairer than others. We don't intend to be prescriptive, or to preach; the aim is to provide a greener choice and better information wherever possible'* (Green Guide)

(Modest) Challenge to consumerism

Unlike *small actions*, *green lifestyle* acknowledges that there is a conflict between this green ethic and economic self-interest, pointing out that current societal rates of consumption are unsustainable.

> *'As a generation, we are consuming the world's resources faster than they can be replenished. We recognise this and are actively trying to make a difference'* (One Planet Home)

> *'If everyone in the world were to consume at the same rate as we do in the UK we would need the resources of three planets. So we simply cannot keep up this rate of consumption'* (Green Guide)

> *'We need to go on a carbon diet – and going green is the best way of cutting down. The average Briton produces around 10 tonnes of carbon dioxide per year and we need to cut our average to just over 4 tonnes by 2050'* (Green Guide)

> *'In 2004, humanity's total ecological footprint was estimated at 1.3 gha/capita. In other worlds, we are using more than 1.3 Earth's worth of resources to sustain our lifestyles, even though we only have one Planet Earth to live on!'* (Rhondda Cynon Taf)

However, once this is brought down to the level of personal consumption *green lifestyle* often soft pedals.

'We've made the line rental ultra cheap in return for keeping your mobile for a year or more. You can buy another handset at any time but we always encourage our customers to re-use their existing hardware or to take a refurbished model' (Green Mobile)

'Nobody expects you to change your lifestyle overnight – that just isn't practical – but we are all going to have to make changes in the next few years in order to tackle climate change' (Green Guide)

Embraces Modernity

Green lifestyle is a repertoire that unambiguously embraces modernity as a good thing, presenting a vision of how to further improve, rather than fundamentally challenge, modern lifestyles.

'It's all about fresh thinking, looking at things differently and using technology to improve the world' (O_2)

'GreenHeart™ is the result of years of research to bring you phones that offer you a greener choice. Green innovations that reduce the impact of our phones without compromise. That means no compromise on features, fun or quality' (Sony)

'Modern living for a changing world' (One Planet Home)

'Green jobs provide climate change solutions. Public policies should be established to encourage investment in low carbon industries and technologies' (TUC)

'The Green Guide is organised according to twelve themes covering the whole range of a modern lifestyle' (Green Guide)

Action/Results Oriented

The appeal and efficacy of g*reen lifestyle* are rooted in the tangible results of practical actions, rather than a transformative vision as in *radical action*.

'Thanks to our wonderful customers we have saved 50 acres of rainforest and planted 4,000 trees in the UK' (Green Mobile)

'It's not just something you support. It's something you do' (10:10)

'The annual Love Where You Live Awards recognise and reward the hard work and commitment of individuals, groups and businesses in all things green' (Rhondda Cynon Taf)

'Union action to green the workplace can help ensure that financial savings from resource and energy efficiency ease the pressure on other costs and saves jobs' (TUC)

'Each year, half a million people attend 3,000 events in Britain's biggest ever environmental occasion' (Climate Week)

Images

Plenty of green, but little photography

Green lifestyle seems to generate a lot of green illustration and branding that draws on natural features, but very few photographs of the natural environment, neither real locations nor generic landscapes. This is a far more informal and 'friendly' style of abstraction in representing the environment than the generic corporate environmental images found in *establishment techno-optimism*.

O$_2$

Green Mobile

Rhondda Cynon Taf Council

One Planet Home

Love Green

The environment themed photography which does appear reflects the basis of *green lifestyle* in an (anthropocentric) general caring environmental ethos, rather than in any attachment to tangible elements of nature or the environment.

Sony

Celebrating collective success

The results based orientation of this repertoire is reflected in images of both collective group successes and montages of individual impacts; with an emphasis on celebration that represents the actions undertaken as fun, as well as worthwhile.

Rhondda Cynon Taf Council   10:10

10:10

Climate Week

Climate Week

Green Modernity

Green lifestyle visually integrates its green ethic with the benefits of modern technological lifestyles.
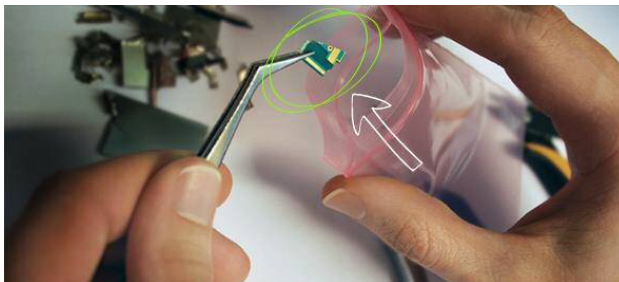
Sony   O₂

This includes green technology as a way of providing the benefits of modernity to the developing world in a sustainable manner.

Sony   10:10

Green Simplicity

The *green lifestyle* repertoire has roots in more alternative visions of green lifestyles. This technological upgrading of the caring ethic towards the developing world is one of the strongest links to these roots, and more traditional, simplicity based, versions of this ethic can also be found in the sample.

Green Guide

These representations of the developing world reflect positive perceptions of simpler, less modern, lifestyles. Examples of this simplicity being applied to the audience's own lifestyles can also be found in the sample. However, even the more traditional products, shown below, are still often ordered online. In this repertoire green simplicity is an attractive element of a modern lifestyle, not an alternative to it.

One Planet Home

Green Guide

5.5 Non-Establishment Techno-Optimism

Non-establishment techno-optimism was found by Ereaut and Segnit (2007, p.18) to 'differ from its establishment counterpart in working from the technology up, rather than the intention down'. In the sample the emphasis in representing technology has shifted away from technical detail and geo-engineering, and more towards the importance of 'independent inventiveness' (Ereaut & Segnit 2007, p.18).

Communicators

(Ecotricity, LoCO$_2$, Good Energy, Nest, Greenpeace)

The *non-establishment techno-optimism* communicators were mainly green energy suppliers, although they only represent a minority of all green energy suppliers, who utilised a range of different repertoires.

Call to Action

Although technologically based like *establishment techno-optimism*, rather than providing reassurance that the communicator will provide a technological fix, this repertoire calls on people to get involved in delivering the potential solution provided by technology.

> *'People: Power. You only have one energy bill - use it wisely...'* (Ecotricity)

> *'Switch to affordable low carbon electricity today and join our growing community'* (LoCO$_2$)

> *'Together we do this'* (Green Energy)

> *'Climate change isn't inevitable. We have the knowledge, skills and technologies to get ourselves out of this difficult situation. All over the world people have woken up to the threat, and are working to reduce the use of fossil fuels, stop rainforest destruction and get power from clean energy. Still much more needs to be done'* (Greenpeace)

Draws on positive view of green energy

This techno-optimism's efficacy rests on delivering on the promise of renewable energy.

> *'Spending more each year per customer on new sources of Green Energy than any other energy company in Britain - bar none'* (Ecotricity)

> *'British Hydropower Designed to Meet Your Electricity Needs'* (LoCO$_2$)

> *'But more than simply sourcing 100% of our electricity from renewables, we're helping the UK achieve a future that's powered purely by renewables'* (Green Energy)

> *'Do we want a clean energy future and a thriving green economy or do we rebuild the expensive, polluting energy dinosaurs?'* (Greenpeace)

Part of a larger change

Unlike *establishment techno-optimism* where technological changes are framed as having no wider impacts, this new technology will drive wider social changes.

> *'We do all this in pursuit of our vision for a Green Britain – A place in which we all live more sustainable lives and where ethical business is the norm – pursuing outcomes other than profit'* (Ecotricity)

> *'There's a lot to do; it requires fundamental changes to the way energy is generated and used in the UK'* (Green Energy)

> *'We need to turn the energy market upside down'* (Green Energy)

> *'We're campaigning for climate solutions that still allow people to prosper without damaging the planet including increasing energy efficiency, clean energy and protecting the world's rainforests'* (Greenpeace)

But not a threat to modern living

These changes embrace technology and so work with, rather than against, the grain and spirit of modern living.

> *'EfficienCity is a virtual town, but pioneering, real world communities around the UK are using similar systems. As a result, they're enjoying lower greenhouse gas emissions, a more secure energy supply, cheaper electricity and heating bills and a whole new attitude towards energy'* (Greenpeace)

> *'Challenge the way people perceive the notion of greenness or green living – the idea that it's all about giving stuff up, about lentils and sandals (though we love both). Our work is about showing that sustainable living is something both feasible and fun'* (Ecotricity)

Rooted in Evidence

Although the sample lacked a high level of technical detail, it still appealed rhetorically to an evidence base to underpin its efficacy.

'We've done the research to prove it' (Good Energy)

'What we need is a low carbon economy with minimal use of fossil fuels. And our research shows that we already have the potential to produce everything we need to get us there – we're just lacking the political action and investment to support a clean energy future' (Greenpeace)

'Despite these huge advantages, and the fact that Britain has some of the best wind resources anywhere in the world, Britain still has no wind industry to speak of. Far from being world leaders, we are being left behind' (Greenpeace)

Images

Small Scale Technology

Non-establishment techno-optimism includes the widest variety of renewable technologies, reflecting its core theme of inventiveness. These are frequently shown at a small scale, often including images of families and/or community groups who have embraced the technology's benefits. This is in contrast to the large-scale technology and focus on professional installers in *establishment techno-optimism*.

Good Energy

LoCO$_2$ Good Energy

This repertoire also draws on some of the positive cultural values associated with the British countryside and farming, linking them to renewable technologies. This is a different appeal to a back to nature framing of environmentalism, these cultural values are far more anthropocentric and do not entail a rejection of modern living.

Good Energy

National Project

British identity was a signinficant part of *non-establishment techno-optimism*, framing changing energy-use as a national challenge and opportunity. Appeals to British values related not only to the countryside, but also visions of urban living and a number of rhetorical appeals to British inventiveness.

Ecotricity   Greenpeace

Revolutionary Images

Non-establishment techno-optimism presents itself as an alternative to the status quo by using revolutionary images in a playful way.

Ecotricity

Greenpeace

This includes presenting itself in opposition to the technology of the establishment, particularly fracking, which threatens the British countryside.

Ecotricity   Greenpeace

Greenpeace

Technological Inventiveness

The sample made use of images representing the spirit of technological innovation, but included less specific detail about new technologies.
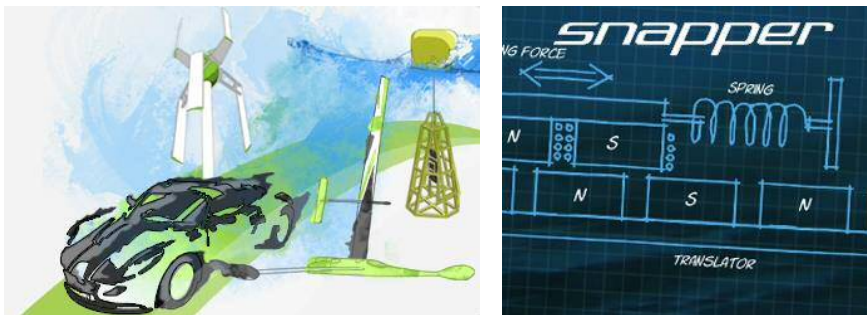
Ecotricity

In sharp contrast to the generic and somewhat faceless groups of managers in *establishment techno-optimism*, several of the communicators used their founders and other identifiable personalities (including celebrities such as Gary Neville) to embody the technological inventiveness driving action forward, potentially inspiring the audience to imitate this 'can-do' spirit.

Good Energy   Ecotricity

Non-establishment techno-optimism is potentially vulnerable to losing credibility with the audience due to the somewhat speculative nature of some of its innovations (Ereaut & Segnit 2007, p.18). An awareness of this was reflected in the emphasis placed on providing visual evidence of past successes to enhance the repertoire's credibility. But some were also confident enough to play with this perception, for example with an image of Doc Brown from *Back to the Future* as the archetypal mad inventor.

We built our new 'Sun Park' alongside one of our Wind Parks — making the UK's first hybrid Energy Park.

Ecotricity

5.6 Comparisons between Repertoires

There were clear differences between repertoires in terms of the types of political participation proposed by communicators using them. There were very few instances of any types of political action being suggested by either *small actions* or

establishment techno-optimism communicators (table 5.2). *Non-establishment techno-optimism* communicators mainly proposed individual political participation, typically lobbying government to support the type of technological changes this repertoire advocates. *Radical action* and *green lifestyle* communicators were the most likely to advocate individual and collective political participation, both through traditional formal channels and activism, reflecting these repertoires focus on wider structural factors. These trends were also reflected in the ways in which communicators using the repertoires framed their audience (table 5.3).

Table 5.2 Political Participation

Political Participation	Formal		Activism	
	Individual	**Collective**	**Individual**	**Collective**
Small Actions (14)	0%	0%	7%	0%
Establishment Techno-optimism (12)	0%	17%	0%	0%
Radical Action (10)	40%	30%	50%	60%
Green Lifestyle (9)	44%	22%	44%	56%
Non-establishment Techno-optimism (5)	40%	20%	0%	20%
All (55)	**22%**	**16%**	**18%**	**22%**

(Note the five repertoires in tables 5.2-5.5 do not add up to 55 because five communicators used other repertoires as their primary repertoire).

Table 5.3 Construction of Audience

Audience Type	Consumer	Citizen	Local Community	Activist	Specific Sub-group	Other
Small Actions (14)	79%	57%	29%	7%	29%	14%
Establishment Techno-optimism (12)	92%	33%	17%	8%	50%	8%
Radical Action (10)	70%	100%	50%	60%	20%	0%
Green Lifestyle (9)	100%	89%	44%	44%	33%	0%
Non-establishment Techno-optimism (5)	80%	80%	40%	40%	0%	0%
All (55)	**80%**	**71%**	**35%**	**27%**	**27%**	**9%**

Individual civic engagement was the most common type of action across all the repertoires (see table 3.8 for full action typology). Those using the *green lifestyle* and particularly the *radical action* repertories were more likely to also include collective types of civic engagement as well (table 5.4); for example, encouraging people to get together with neighbours to undertake carbon reduction actions.

Reflecting its reassuring message, the *establishment techno-optimism* repertoire was very unlikely to encourage people to pay attention to the issue of climate change. Conversely, reflecting its emphasis on the need for people to take responsibility for tackling climate change, *radical action* was the most likely to encourage attention to climate issues.

Table 5.4 Types of Civic Participation

Civic Participation	Engagement		Attention	
	Individual	Collective	Individual	Collective
Small Actions (14)	93%	21%	50%	36%
Establishment Techno-optimism (12)	83%	33%	17%	8%
Radical Action (10)	100%	80%	80%	80%
Green Lifestyle (9)	100%	56%	67%	56%
Non-establishment Techno-optimism (5)	80%	20%	60%	40%
All (55)	**91%**	**44%**	**56%**	**44%**

There were also interesting variations in the types of civic engagement suggested within the different repertoires (see table 5.5). In *small actions*, the distribution of different types of actions was very similar to the sample overall, perhaps demonstrating its continued importance to the action discourse as a whole. The proportion of each type of action was also largely similar, but at lower levels, in *establishment techno-optimism*, with the exception of higher levels of recycling, perhaps because recycling is the most widespread and uncontroversial action. *Non-establishment techno-optimism* had a clear focus on both regular and one-off energy saving actions, reflecting the emphasis it places on energy technologies. The most common actions in g*reen lifestyle* were recycling, eco-shopping and regular energy saving, which ties in with its focus on everyday lifestyle choices. In contrast, in *radical action* no types of civic action were noticeably emphasised or more common than any other; it seems likely this is the result of its explicit rejection of the small actions approach and focus on broader systemic change.
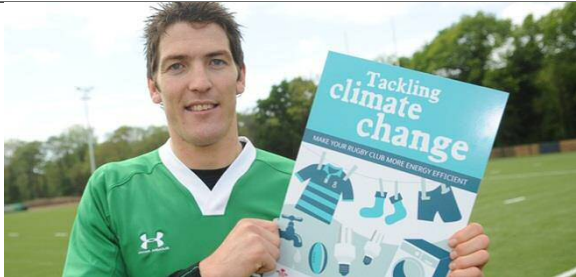
Table 5.5 Individual Civic Engagement Actions

Individual Civic Engagement Types	Regular Energy/ Water Conserv ation	One-off Energy/ Water Conserv ation	Recycle /Waste Reducti on	Eco- shop/ Eating	Persona l Transpo rt	Indirec t Behavi our	Eco driving
Small Actions (14)	86%	79%	57%	64%	43%	21%	14%
Establishment Techno-optimism (12)	58%	42%	75%	33%	17%	25%	8%
Radical Action (10)	60%	60%	60%	50%	50%	50%	10%
Green Lifestyle (9)	100%	56%	100%	100%	67%	44%	44%
Non-establishment Techno-optimism (5)	100%	100%	20%	40%	40%	40%	0%
All (55)	**76%**	**65%**	**62%**	**53%**	**40%**	**36%**	**15%**

Interestingly the most common type of speaker was different for each repertoire.

Table 5.6 Supporting Voices

Repertoire	Speaker	Example
Small Actions	Celebrity (46%). Endorses taking specific easy action(s). Reinforcing ideas of ease of taking part and mass participation in small actions.	James Hook, Wales Carbon Footprint
Establishment Techno-optimism	None (58%) / Politician (42%). Most likely not to include any other voices at all. But the voice that is most used is the politician, endorsing the validity of the reassuring message of *establishment techno-optimism*.	Greg Barker, nPower, explains Green Deal at Grand Designs trade show

Repertoire	Speaker	Example
Radical Action	Ordinary Person (60%). Often shown in the context of working actively as part of a group. Demonstrating the potential for significant change and that ordinary people can make it happen.	Cardiff Transition asks people what one change they would make to the city.
Green Lifestyle	Environmentalist (56%). Provides credibility and reassurance by negotiating the modest tensions between green ethics and modern lifestyles that this repertoire acknowledges.	Jonothon Porritt, O_2 explains how business and environment can be balanced.
Non-establishment Techno-optimism	Businessperson (67%). Not the stereotypical suited banker or CEO who this repertoire actually actively opposes. Allowing it to set up an alternative business person who embodies the evidence based anti-establishment thinking of this repertoire.	Juliet Davenport, Good Energy CEO, accepts an award for business leadership and explains her vision for renewable technology in UK

Table 5.7 shows the frequency with which each of the repertoires occurred in websites with a different primary repertoire.   *Small actions* established position in the discourse about climate action meant that it frequently occurred in websites with a different primary repertoire. However, the reverse was not the case and it was fairly unusual in messages where *small actions* was the primary repertoire for

other repertoires to be included. *Small actions* was particularly prevalent when *green lifestyle* was the primary repertoire, reflecting their shared emphasis on individual action. The extent to which repertoires call for systemic change was an important factor in whether they co-occurred. *Radical action* and *non-establishment techno-optimism*, the two repertoires which place the greatest emphasis on the need for systemic change, were frequently found in the same websites. Conversely, there was no overlap at all between *radical action* and *establishment techno-optimism*. There was a notably asymmetrical relationship between *green lifestyle* and *non-establishment techno-optimism*, with the former often including elements of the latter, whereas the reverse never occurred. Possibly this was because although the new and innovative green technology promoted by *non-establishment techno-optimism* can be a good fit with the aspirational narrative of *green lifestyle*, the small changes and embracing of current patterns of modernity found in *green lifestyle* runs counter to the innovative spirit of *non-establishment techno-optimism*.

Table 5.7 Frequency of Repertoires Overlapping

Other Repertoires Primary Repertoire	Small Actions	Establishment Techno-optimism	Radical Action	Green Lifestyle	Non-establishment Techno-optimism
Small Actions (14)	-	14%	7%	14%	29%
Establishment Techno-optimism (12)	42%	-	0%	8%	25%
Radical Action (10)	40%	0%	-	10%	50%
Green Lifestyle (9)	78%	22%	22%	-	44%
Non-establishment Techno-optimism (5)	20%	0%	60%	0%	-

6 Climate Discourses and Public Connection

6.1 Introduction

All the interviewees were familiar with significant elements of the action discourse found in the advertising sample. Subsequent chapters explore the action discourse in greater detail: how interviewees talked about climate actions (chapter 7) and the action discourse repertoires (chapter 8). This chapter locates the action discourse in the context of wider public discourse about, and public connection to, climate change. Focusing on three other climate discourses people drew on in the interviews, from sources other than advertising. These discourses are focused on other elements of climate change, such as its causation, and have their own sets of linguistic objects and relations between them (see table 6.1 for summary). As with the action discourse, each discourse allows for interviewees to adopt a range of different positions, which this chapter explores in detail.

Table 6.1 Summary of Main Climate Discourses in Public Interviews

Climate Discourse	Key Features	Media Sources identified in interviews	Interviewees' Awareness
Action Discourse	Resolve Consensus that climate change is human caused and solvable by human action Dominated by common individual civic engagement actions	Advertising/PR	Large majority of interviewees
Causation Discourse	Debate about climate science in the media Scale of human consumption causes anthropogenic climate change	News and other factual media	Only more publicly connected informed group

Climate Discourse	Key Features	Media Sources identified in interviews	Interviewees' Awareness
Impacts Discourse	Focus on visually spectacular negative impacts of climate change Alarming tone	Most prominent discourse in media, seen as prototypical of news coverage	All interviewees
Action-Gap Discourse	Large and growing gap between current levels of action and level required Gap will have soon, or is already having, major negative consequences	No clear source	Large majority of interviewees

This chapter begins by exploring the causation discourse interviewees used to talk about what causes climate change, a question which is central to the construction of public opinion about climate change. It also looks at the influence wider public connection had on whether or not people used this causation discourse. Two further climate discourses which were common in the interviews are also explored: the action-gap discourse and the impacts discourse. Next, I explore the role that differences in interviewees' wider public connection played in their connection to climate change specifically. Public connection is both an orientation towards public issues and a set of civic practices through which this orientation is realised. The details of how public connection to climate change takes place are highly relevant to understanding when and how these climate discourses influence public opinion. Interviewees' limited awareness of climate politics is explored, as is the role of media connection in certainty about the causes of climate change, and finally the dynamics of talk in everyday life which lead to 'climate silence'. 'Climate silence' is characterised by both the limited nature of public talk about climate change, talk about climate change is both rare, just 60% of the public have ever talked about climate change, and brief, 71% of those who did talk about climate change talked for less than ten minutes (Rowson 2008), and also by the similarly small amount

and limited scope of talk about climate change in both the media and by elite actors (Brulle et al. 2012).

6.2 Causation of Climate Change and Public Connection

Climate science and questions about the reality of anthropogenic climate change play a central role in public discourse about climate change. Polling about public acceptance of anthropogenic climate change is frequently used strategically in UK media coverage to support newspapers existing ideological positions (Höppner 2010, p.996). Reflecting that, public debate about climate science and the causes of climate change often serves as a proxy for wider debates about how to respond to climate change. The centrality of debates about climate science is the result of the particular historical development of public discourse about climate change, the details of which are beyond the scope of this study (see Boykoff & Boykoff 2004, Oreskes & Conway 2010). What is important for my study is that there are no a priori reasons why other potential questions, for example, about responsibility for climate change or what action(s) to take, could not have filled the same role that climate science has as the primary indicator of public opinion.

Common phrasings of survey questions about the causation of climate (for example figure 6.1, a typical phrasing I adopted for this study) are potentially problematic in the way they may be understood by the public. There is widespread implicit understanding amongst those carrying out the surveys that 'climate change' refers specifically to the recent rapid upward trend in global temperatures only, and not other publicly well-known (pre)historic climate changes, such as ice ages or the little ice age. However, this is often not explicitly specified, so the public may feel the pollsters 'correct' answer that climate change is mainly caused by human activity requires denying natural climate change processes. By asking interviewees to elaborate their thought processes once they had selected an option, I explored both how interviewees resolved the larger public controversy, and how they interpreted the specifics of what the question was actually asking.

Figure 6.1 Climate Causes Question

29. Which of the following best describes your views on the causes of climate change?	Mainly human activity ☐	Mainly natural processes ☐	Natural processes and human activity ☐
	Don't know cause ☐	Not sure if climate change is happening ☐	Climate change is not happening ☐

Interviewees took more time over – and made more spontaneous comments about – this question than any other item on the questionnaire, reflecting its importance in public discourse. Interviewees' responses were largely in line with recent nationally representative polling (table 6.2).

Table 6.2 Climate Causation Opinions

Climate Change Cause	Interviewees	Capstick et al. (2015)*
Mainly Human Activity	35%	36%
Natural Processes and Human Activity	52%	48%
Mainly Natural Processes	0%	13%
Don't Know The Cause	0%	2%
Not Sure If Climate Change Is Happening	13%	N/A
Climate Change Is Not Happening	0%	1%

* Results are based on 1,002 face-to-face CAPI interviews with members of the British public aged 16+. Data are weighted to the profile of the known population. Responses for Mainly and Entirely Human Activity and Mainly and Entirely Natural Processes have been combined. Option of Not Sure If Climate Change Is Happening was not offered in this poll.

In explaining their answers to this question most interviewees drew on the same causation discourse, the main features of which are summarised in table 6.3. These features are drawn from interviewees' responses, but most will be familiar from previous studies of news coverage of climate change, and several interviewees cited media coverage as their source for this information. The causation discourse was typified by an emphasis on climate science, often described through a 'he said, she said' balancing approach (Boykoff & Boykoff 2004). A sharp divide was identified between interviewees who used the causation discourse (the informed

group) and those who did not (the non-informed group). The informed group used most if not all elements of the causation discourse in answering this question, whereas the non-informed group typically did not use any of them. The informed group's scientific understanding of the causes of climate change should not be overestimated; little, if any, detail of the physical mechanisms involved was provided, in line with previous studies (Reynolds et al. 2010).

Table 6.3 Causation Discourse Main Features

Element of climate change causation	Informed Group	Non-Informed Group
Debate about causes of climate change	Frame discussion as response to 'he said, she said' debates between climate scientists. Aware that majority of scientists believe it is human caused.	Are aware that there is uncertainty about causes of climate change. Not familiar with scientists debating causes in the media.
Scientific Evidence	Use familiar examples of scientific evidence of human causation from media: ice cores, temperature records, international scientific reports.	Not familiar with these examples, do not cite scientific evidence as part of reasoning.
Human Causes	Focus on large scale human consumption as source of emissions and other environmental damage: industrial revolution, destruction of Amazon.	Cite more generic environmental problems: pollution, landfill. May not find large scale human transformation of climate a credible idea.
Natural Causes	Aware of natural climate cycles, may mention both historic cool periods and prehistoric ice ages.	Also mention that climate changes naturally, but not clear on mechanisms; may speculate about rotation of Earth, distance from Sun.

Overall 15 interviewees, the informed group, drew on the types of language and examples that are typical of the causation discourse, they were able to talk at greater length about the causation of climate change, and this appeared to be an

important factor in them being substantially more likely to draw the conclusion that it is mainly caused by human activity (table 6.4). The eight other interviewees, the non-informed group, who were not familiar with the causation discourse, gave much shorter answers, reflecting that no alternative forms of discourse about the causation of climate change emerged during the interviews, and as a result they had fewer of these shared discursive objects to draw on. Use of the causation discourse strongly reflected the interviewees' self-reported levels of exposure to information about climate change (table 6.5). The informed group also had higher levels of wider public connection (tables 6.6 & 6.7). Substantial differences emerged between how the informed and non-informed groups talked about many other aspects of climate change beyond the causation discourse and wider public issues.

Table 6.4 Cause of Climate Change

Climate Change Cause	Mainly Human Activity	Natural Processes and Human Activity	Not Sure If Climate Change Is Happening
Informed (15)	47%	47%	7%
Non-Informed (8)	13%	63%	25%

Table 6.5 How Much Have You Heard About Climate Change?

How much have you heard about climate change?	A lot	A fair amount	A little	Nothing
Informed (15)	40%	53%	7%	0%
Non-Informed (8)	0%	25%	75%	0%

Table 6.6 National Newspaper Reading Frequency

National Newspaper per week	4+	2-3	Once	Less than once	Never
Informed (15)	33%	13%	27%	13%	13%
Non-Informed (8)	13%	13%	0%	25%	50%

Table 6.7 Political Talk Frequency

I often talk with other people about political issues that are important to me	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Informed (15)	20%	60%	20%	0%	0%
Non-Informed (8)	0%	38%	25%	25%	13%

6.3 Causation Discourse: Climate Science and Scale of Consumption

The informed group structured their accounts of the causation of climate change around two key elements of the causation discourse: (i) the strength of the scientific evidence for anthropogenic climate change and (ii) the scale of human consumption making global impacts on climate credible. These two key features drove higher levels of acceptance of anthropogenic climate change. The different ways interviewees used, or did not use, these key features to answer the question of causation are described in more detail in the rest of this section. Figure 6.2 shows the responses of all 23 interviewees to this question about the causation of climate change, positioned against two dimensions. Firstly, those in the informed group are above the horizontal line, those in the non-informed group below it. Secondly, the interviewees who were most certain about the human causation of climate change are on the left hand side of the figure, with interviewees becoming progressively less convinced about human causation towards the right of the figure. Interviewees who gave very similar answers are grouped within the same bubble, with the four different colours of bubble reflecting similar positions on the causes of climate change. The arrows between bubbles indicate links between interviewees who gave similarly structured answers but reached different conclusions about the causation of climate change. Those who selected mainly human causes generally chose their answer more quickly and were confident in stating that the scientific evidence was clear, although the detail they gave to justify this confidence varied significantly. Those in the informed group who did not select

mainly human activity also gave accounts of the scientific evidence, but did not feel confident they could reach a definite conclusion. However, despite this greater uncertainty they also treated large scale human consumption as a credible cause of climate change. In contrast, the non-informed group rarely attempted to evaluate climate science and were also less likely to view consumption as a credible cause of global climate impacts.

Figure 6.2 Climate Causation Positions
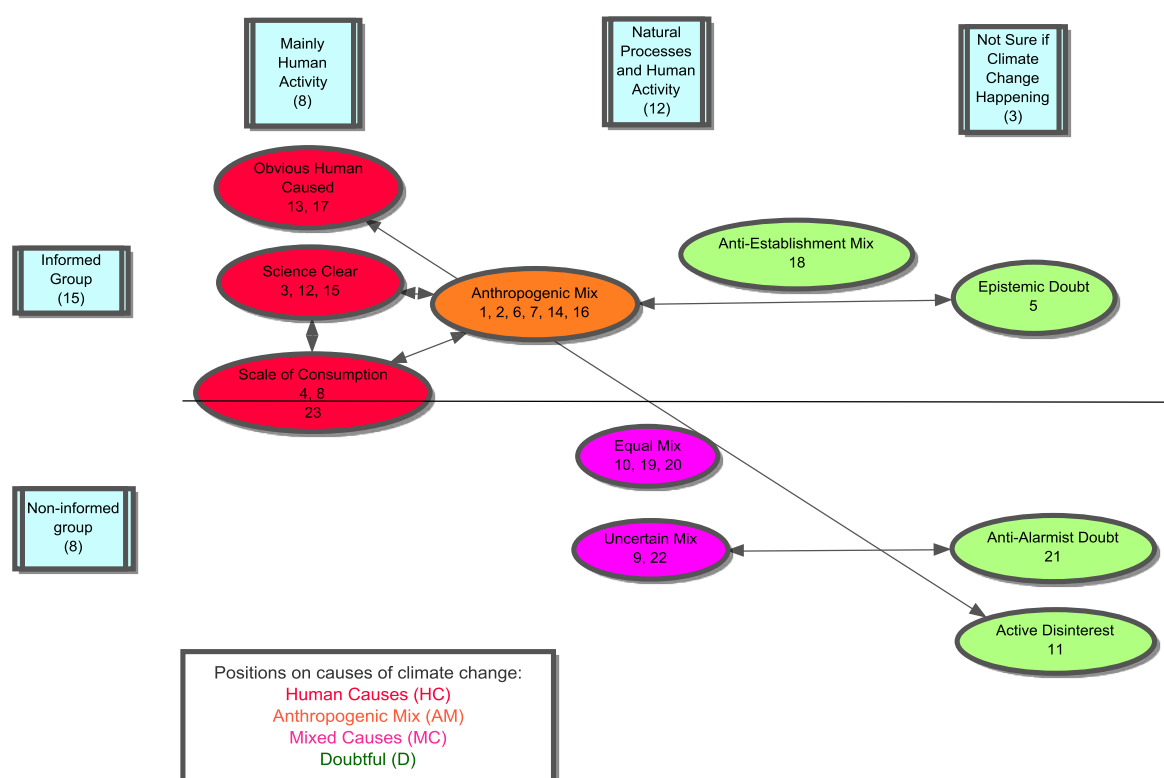
Table 6.8 summarises these positions for each of the interviewees, and this information is included each time an interviewee is quoted; for example interviewee 1 is (P1, Inf, AM), indicating they are in the informed and anthropogenic mix groups.

Table 6.8 Summary of Interviewees

Interviewee Number	Age	Gender	Causation Discourse	Causes of Climate Change
1	45-54	Female	Informed	Anthropogenic Mix
2	55-64	Female	Informed	Anthropogenic Mix
3	65+	Male	Informed	Human Causes

Interviewee Number	Age	Gender	Causation Discourse	Causes of Climate Change
4	45-54	Female	Informed	Human Causes
5	55-64	Female	Informed	Doubtful
6	55-64	Male	Informed	Anthropogenic Mix
7	45-54	Male	Informed	Anthropogenic Mix
8	35-44	Female	Informed	Human Causes
9	18-24	Female	Non-informed	Mixed Causes
10	18-24	Male	Non-informed	Mixed Causes
11	65+	Female	Non-informed	Doubtful
12	65+	Male	Informed	Human Causes
13	35-44	Female	Informed	Human Causes
14	55-64	Male	Informed	Anthropogenic Mix
15	55-64	Male	Informed	Human Causes
16	55-64	Male	Informed	Anthropogenic Mix
17	65+	Female	Informed	Human Causes
18	55-64	Male	Informed	Doubtful
19	18-24	Male	Non-informed	Mixed Causes
20	18-24	Female	Non-informed	Mixed Causes
21	18-24	Female	Non-informed	Doubtful
22	18-24	Female	Non-informed	Mixed Causes
23	18-24	Female	Non-informed	Human Causes

The eight interviewees who selected mainly human causes generally answered noticeably quicker and made decisive statements that climate change was human caused, 'yeah oh God, I absolutely believe that the science says that climate change absolutely is happening' (P8, Inf, HC). Natural causes were acknowledged, but their importance was minimised, 'so I have to say it has got to be mainly human, I can't understand how it can be anything other than really. Ok there was an ice age wasn't there and umm, and that happened and possibly there is a natural way, but I just don't, they would have to prove otherwise to me' (P4, Inf, HC). Everyone in this group talked about science and consumption, but there was a clear divide between three people who emphasised that the science is clear, 'I am sure that there is so much scientific evidence that it's as a result of what we are doing' (P3, Inf, HC); and three others who focused on the scale of consumption, 'there is an awful lot more of us and (…) we are using all sort of different products that we're not even sure what it does to, to the environment' (P4, Inf, HC). The other two people who selected mainly human causes just used a single example to emphasise that human

causation was obvious and did not require any further elaboration, 'It's obvious (laughs). I know that people claim that there is no change at all, but when you see the trees in bloom in December, how normal is that?' (P13, Inf, HC). This type of informal empiricism is distinct from the science based causation discourse (Capstick 2012, p.121). Its use here, however, appeared to be a rhetorical device to emphasise their high level of certainty about anthropogenic climate change, rather than a substantial difference in how they reached this conclusion; they both used the causation discourse in other parts of the interview.

The 'science is clear' group talked about climate science at greater length than the other two convinced groups. Indeed, some of the others self-depreciatingly admitted to not always understanding the scientific details, but were unconcerned about this, 'if it gets too technical I will sort of tune out a little bit, unless there is a diagram, and then you know I can understand it a bit more' (P8, Inf, HC). P23, the only person in the non-informed group who selected mainly human causes, was the least certain because she was unfamiliar with the science, 'well yeah, ok, well I think that (climate change is human caused), whether I am right I don't know'. She constructed her answer around the environmental damage caused by consumerism, but again was unsure about the details, 'so you know like McDonald's have like big farms for their cows, well they fart and like something happens, it's like a gas right? (…) when we use electric, just everything, everything we do is affecting the world. So that's why I think, I don't think it's natural, I think it is all human.' Her strong identification with an anti-consumerist position, apparent throughout the interview, led to her taking this position despite a lack of familiarity with the causation discourse.

There were sharp differences amongst those who selected a mix of human and natural causes between those in the informed group, who were familiar with the causation discourse, and those in the non-informed group, who were not. Six of the seven people in the informed group who selected this option leaned strongly towards human causes (anthropogenic mix), they all made statements that clearly accepted the reality of anthropogenic climate change (see table 6.9), and none made equivalent statements rejecting it. Unlike the mainly human causes group

they were not willing to make definitive statements about climate science, so their talk was more like reasoning out loud. Memorable examples of scientific evidence from the media, such as ice cores, supported human causation, 'he (the scientist) was standing there with a kind of gauge and you could see the difference between before the industrial revolution and afterwards and it was, as far as he was concerned, it was a given, you know, it was us that had changed it' (P1, Inf, AM). But they also talked about natural climate change processes, 'so I think there is an underlying level of constant cycling, constant change, that would always be there, so therefore I don't think you can deny the natural activity' (P14, Inf, AM). They used the same arguments as the human causes group about consumerism and/or industrialisation to argue for significant anthropogenic climate change. However, a remaining element of doubt about climate science prevented them from selecting mainly human activity, 'but then there is other, other people who say that it could be part, partially a natural activity so umm, it depends who you listen to. And this is where we all get completely, completely confused' (P1, Inf, AM).

Table 6.9 Anthropogenic Mix Group on Human Causation of Climate Change

Interviewee	Quotation
P1	'But it's definitely happening and it is really important that we sort it out (…) if we could just erm, you know reduce the amount of impact we have on the environment that would be fantastic really.'
P2	'It's fairly obvious that we do a lot of things that aren't good for nature'
P6	'Probably, as we go more and more into the industrialisation and the process that we are running it probably tips more in to being affected by human activity.'
P7	'sometimes you feel powerless about some of the big conglomerates that control the drilling of natural resources, that are then, pumping and spewing out gasses and blah blah blah out there, we just don't have control over it.'
P14	'I am absolutely certain that there is a massive amount of human involvement in climate change, no doubt about that in my mind, I am not a denier (laughs).'
P16	'I think the root of it, as to what seems to be the current dramatic change in the climate is human activity, yes'

The seventh interviewee who selected a mix of natural and human causes and used the causation discourse (P18, anti-establishment mix) was very different to the other six. In a lot of ways his position was as doubtful as the three interviewees who said they were not sure climate change was happening. He was reluctant to say that climate science is definitely wrong and acknowledged industrialisation as a plausible explanation for human causation. His scepticism appeared to be partly identity based, as climate change challenges his independently minded and individualist worldview: 'you know I resent being told that you are not politically correct for feeling in a certain way, you know I suppose as regards the science of it, I can quite understand if I see lots of smoke and stuff going out of Port Talbot steel works that they might have an effect'. He bracketed both topics off from his main arguments, scepticism about the cost-benefit analysis for action and that government is shutting down honest debate: 'a large element of energy prices now are to pay for, umm non-carbon sources, and you wonder the costs, if there isn't a manmade climate change it's a tremendous waste of money isn't it? So it's, it suits government to close down arguments because they are pursuing a particular policy.'

The five interviewees in the non-informed group who selected a mix of human and natural causes gave shorter answers that did not draw on the causation discourse. Lacking familiarity with the scientific debate, on the rare occasions they did talk about science they drew on scientific objects from more general discourse: 'if we can keep the pollution and the carbon emissions down (…) you know not breathing carbon monoxide, obviously the more carbon monoxide in your lungs which causes you to, you know, to become ill or something' (P19, Non-inf, MC). Three settled on an equal mix, providing no indication which was more important, 'so it's really a toss between the two, is it us or is it just natural, so a little bit of a, I wouldn't put it on one of those, I would put it on both' (P20, Non-inf, MC). The other two (uncertain mix) also did not offer a steer in either direction. They said they had paid little attention to climate change and had no fixed opinions, but gave slightly longer, more open-ended answers than equal mix. Lacking the causation discourse to inform this talk they both speculated along similar lines about which cause was

more important. They identified potential human causes (pollution and cutting down trees), were uncertain what the natural mechanisms might be, but did not find the idea that people could have such a widespread effect on the planet credible: 'I just don't feel that that would all be on human fault in a way. I think that part of it would be natural, I don't really have any evidence to back that up, that's just a gut feeling and I could change my mind if someone, I'm quite easy to change my mind if someone wanted to tell me more about it (laughs)' (P9, Non-inf, MC).

The three interviewees who said that they were not sure climate change was happening were quite distinct from each other, but could each be related to types of talk identified in those selecting other options. P5 (epistemic doubt), the one interviewee who used the causation discourse who answered not sure that climate change is happening, like the anthropogenic mix group produced an open account of climate science: 'there is a whole load of opinion which gets in the press about how climate change is happening, the polar ice caps melting umm, deforestation in the Amazon, all sorts of things like that are having an effect. And then there are some scientists, but I think they are in the minority, saying that it is just one of the cycles of changes that happens'. However, rather than focusing on consumption as supporting human causation, she instead focused on the methodological limits to what climate science can know: 'trees that can apparently prove whether or not, or show different climate changes in different settings a very old tree. But I don't know how many trees they have checked in how many parts of the world, in how many countries (laughs) or whether, to confirm that everything is worldwide' (P5, Inf, D). Only one other interviewee, P6 (Inf, AM) expressed this type of epistemological doubt about climate science; his doubts seem to have been partly counteracted by strong views about the long-term negative environmental legacies of colonialism.

P21 (anti-alarmist doubt) closely resembled the uncertain mix group; she had also not really given climate change much thought or adopted a fixed position. She speculated in a similar way about what the human and natural causes might be, but adopted a more sceptical position due to annoyance with alarmism, 'people are just

blowing it way out of proportion, and are like we won't have this in so many years because of the weather, and it's like, calm down (laughs)'. P11 (active disinterest) was aware of the causation discourse, she read (often sceptical) coverage but by her own admission did not pick up any of the details, 'everything you read on it, everybody gives their own reason and then somebody else give some other reason'. She used informal empiricism as a rhetorical device in a similar way to the 'human causation is obvious' group, but to make the opposite argument, 'I really don't know, what I think about it climate change to be quite honest. I think I was brought up in the North where the winters were very hard and they still are, you know I went up there at Christmas and they had snow (inaudible) deep, we won't probably see snow, I don't think our summers are any particular, I don't think it's that different myself, from what it ever was, do you know.'

Summary

The causation discourse appears to play a central role in acceptance of anthropogenic climate change. Two key elements of the causation discourse drove the acceptance of anthropogenic climate change in the informed group: the strength of scientific evidence and the damage caused by large-scale human consumption. A majority of interviewees drew on this discourse to deliberate about the causes of climate change, and no alternative discourses emerged among those who did not, leading to them giving shorter answers. This trend was stronger than the quantitative results would suggest, as amongst those who selected mixed causes, those who used the causation discourse attached far higher levels of importance to the influence of human activity than those who did not. This anthropogenic mix group demonstrates that doubts about the conclusions of climate science have been created in a significant proportion of people familiar with the causation discourse. However, while familiarity with the causation discourse means more exposure to messages creating doubt, it also creates a greater ability to weigh the balance of evidence. The most uncertain were those who had heard the least about climate change (both consensus and sceptical messages), and who were, therefore, the least equipped to produce a fluent account of climate change and successfully identify the consensus expert position. This suggests that there is

a role for more public discourse about climate change to help people reach this conclusion, not by simply providing more factual information, but by increasing engagement with climate change as a public issue.

6.4 Action-Gap Discourse: Widespread Doubts about Current Levels of Action

The action discourse in the media sample differs significantly from wider media discourse about climate change not only in the levels of doubt it expresses about the existence and/or causation of climate change, but also in its representations of the likely efficacy of current levels of public action. While most of the main linguistic repertoires found in the sample do, to varying extents, acknowledge at least some challenges to taking effective action, their overall tone is upbeat and emphasises that they can be overcome. This is in sharp contrast to many other prominent forms of media discourse about climate change, in which future, and current, negative impacts of failure to tackle climate change play a large role, and public actions are both less prominent and often represented as falling short, at both personal and governmental levels. The non-informed group are less likely to think that climate change is a very important problem (see table 6.10), and more likely to only be familiar with the more upbeat action discourse. However, in contrast to the significant variations in use of the causation discourse between the informed and non-informed groups, the majority of the sample used an action-gap discourse describing a significant shortfall in the action required. This discourse acknowledges that genuine efforts are being made to take action, but argues that these efforts are not translating into the necessary overall impact, 'so in fairness there are people making an effort to do something about it, but umm, there is still a lot that could be done' (P6, Inf, AM).

Table 6.10 Importance of Climate Change

How important a problem is climate change?	Very Important	Quite Important	Not Very Important	Not At All Important
Informed (15)	80%	13%	7%	0%
Non-Informed (8)	38%	50%	12%	0%

The action-gap discourse paints a very negative picture of current levels of action. The action-gap is constructed as significant, 'maybe about a third of us will end up doing it but the other two thirds probably won't' (P1, Inf, AM). The gap is also expected to increase over time, '(exhales) well I think it's already slow, some changes (…) I don't know if it will be soon enough, you know what my daughter will have to operate in I don't know' (P8, Inf, HC). Major negative consequences may already be inevitable, 'it's not going to be changed until it's too late. Like we are going past the stage where it is reversible now' (P23, Non-inf, HC). It was not only the most convinced about anthropogenic climate change who used the action-gap discourse, but also the mixed causes groups as well. This included those in the non-informed group, who, although they again gave shorter answers reached a firm conclusion, unlike with the causation of climate change, that current action was not sufficient.

A common framing within the action-gap discourse to explain this gap is that not enough people are taking the common civic engagement actions found in advertising, 'I know there are some people that are doing loads, and then there are others who are not doing anything' (P22, Non-inf, MC). This was constructed as the result of people not being sufficiently engaged, 'it's in the back of people's minds, they know it is happening and they know that it is there, but I don't think they have got a fully drawn conclusion of how they are going to deal with it' (P19, Non-inf, MC). As a result, changing behaviour is framed as being difficult, 'people trying to change their behaviour is a very difficult thing to do, so umm, if they have already got in to the habit of boiling a kettle on a full jug, it, it's quite likely that they will carry on doing that' (P1, Inf, AM). A common solution proposed to tackle this was increasingly alarming messaging to get these people's attention, 'I don't have the feeling that people understand the connection of everything, you know, so umm, maybe you just, it's a big disaster, that's what you need a big disaster, then they will pay attention' (P13, Inf, HC). These framings of the action-gap draw on common media representations, both the cumulative impact of *small actions* and

constructions of people as falling short of fully engaged 'good' environmental behaviour.

The mainly human causes group were much more likely to frame the action-gap in terms of public policy. For the 'science is clear' group government is crucial, 'these issues obviously I think will be decided at the highest level, in governmental levels' (P12, Inf, HC). Debate about the costs of action were acknowledged as legitimate, 'these (actions) all imply added costs, (…) political decision at the highest level. How much this can be transferred across to our economy, that's not growing at the moment' (P12, Inf, HC). However, the privileging of short-term economic interests was seen as the fundamental cause of the problem, 'the knowledge and the science is there, what is not there is, part of the problem I think is that all of these politicians are just short-term, they have got five year tenancy, they have got no long-term interests, it's all short-term' (P15, Inf, HC). This led to a focus on long-term, large-scale negative impacts, 'I don't have much confidence whatsoever that we are actually going to intervene sufficiently to, certainly not going to hit the two degree limit' (P15, Inf, HC). The 'anthropogenic mix' group also used a government framing, but were less certain about how to strike a balance between climate and the economy, 'there's a lot of issues come together to sort of impact on each other and to try and find how to get them holistically to blend together to sort the problem out is a nightmare. And I'm glad I'm not in government (laughs)' (P6, Inf, AM).

Public policy was framed by the 'scale of consumption' group in terms of a broader societal transformation, rather than government responsibility. A transformation they felt was happening too slowly, 'it's like a jigsaw puzzle there's little bits of jigsaw going into the overall jigsaw puzzle, (…) I think there a little bits of jigsaws popping in every now and again, but again it's not being, the jigsaw puzzle isn't being made quick enough type of thing' (P7, Inf, AM). The main barrier to transformation in this framing is low levels of public awareness, 'it is quite hard isn't it, if they (the public) always put their attention to some stupid things like (mock voice) oh gay marriage is (inaudible) or principles, if they are always concentrating on nonsense like that' (P13, Inf, HC). This type of societal transformation also

requires time to take effect, 'it can be done, but it's umm, it is not going to actually have an effect, I don't think for many, many years if we do anything' (P4, Inf, HC).

Despite the emphasis the mainly human causes group placed on public policy, they were the least likely to see a leadership role for government. The less convinced suggested government leadership would make people take climate change more seriously, 'it would have to be set out as an aim or a goal very clearly, with what people need to do, for this result, for people to actually do it I think' (P9, Non-inf, MC). The 'mainly human causes' group were more likely to adopt the opposite framing, that people would have to put pressure on government to lead, as they were pessimistic about government's motivations, 'somehow or other there has to be a, has to be some, some sort of public movement to try and bring this about, but I can't, I can't imagine how that would happen' (P15, Inf, HC). This was a rare example of doubts about the efficacy of political participation in climate change being raised, rather than the possibility not even being mentioned.

The five people who did not adopt the action-gap discourse included the four most doubtful. They also felt that action was limited but viewed this as a reasonable response to climate change given the uncertainty, 'I don't think much is being done (…) I don't think they are paying much attention to it. I think you know there is more important stuff to be done in the UK, and it is probably the last thing that needs to be done, because it is probably happening at a slow pace, maybe' (P21, Non-inf, D). P18 (anti-establishment mix) was the one person to suggest that too much action was being taken, '(we don't know) whether we are kidding ourselves thinking that man is responsible for all this'; even if it is human caused 'does it really matter if there are a few islands that are flooded, you know because of the rise in sea level, and let's do something to compensate them rather than spend billions throughout the rest of the world you know to stop the sea level rising a few centimetres.' P20 (equal mix) was the one person who felt that current action was both required and sufficient, although she wasn't sure what action, 'I haven't heard about it for a while, I don't know, you don't know if scientists have said, this is what it is and this is what it is, and now we have got to do this, got to do this, but I am sure people are helping, like people recycling'; a rare example of the action

discourse's positive view being adopted, 'I am sure that they have put those in place, and the world is greener'.

Summary

The action-gap discourse paints a strikingly negative picture of current levels of public action on climate change. It was widely adopted by all but the most doubtful about anthropogenic climate change. Notably, the mixed causes group had few doubts about the action-gap discourse's conclusions about the need for additional action, in contrast to their doubts about the conclusions of the causation discourse. The mainly human causes group were more certain and concerned about the action-gap. The main explanation for the action-gap in this discourse is that while some people are taking common civic actions, a significant proportion of people are not acting, due to lack of engagement with the problem. The most convinced about the human causation of climate change also talk about public policy failures as well. Those focused on science see the major stumbling point for public policy as government inaction due to economic short-termism. Those focused on consumerism on the difficulty of achieving a large scale transformation of the consumerist system given the lack of public awareness. In this public policy framing, government leadership is a barrier to closing the action-gap due to government's bad intentions and resistance to public pressure for action. This is in contrast to the positive role given to it in framing focused on civic action where government can promote engagement with individual actions.

6.5 Impacts Discourse: Low Levels of Media Coverage Focusing on Alarming Impacts

For interviewees the most common type of media content they saw about climate change was news coverage or other factual programming, usually on television; however, people were often unsure exactly when and where they had seen it. This content did not draw primarily on the action or causation discourses, but an impacts discourse focused on the negative consequences of climate change. It

was seen as highly alarming, with the two dominant impacts in this discourse being melting ice caps and extreme weather; 'well I don't know, shock horror some dreadful event is going to happen that umm, you know the polar bear population is going to suffer because of the melting ice caps or something. Or you know there is some extreme weather event somewhere' (P18, Inf, D). Arresting visuals play an important role, 'the polar bear (laughs) from the Foxes glacier mints looking very forlorn, and beautiful pictures of, if it wasn't so beautiful I wonder if they would film it so much, of the ice falling' (P17, Inf, HC). Climate change was often a secondary theme in coverage of extreme weather events, 'if a major event happens like, the other side of the world there was major fires in Australia, you know the forest fires are raging out of control and all that kind of thing (…) events give rise to people talking about it (climate change), as opposed to talking about it in its own right' (P14, Inf, AM). The informed group were more likely to mention news also including some other elements of climate change, 'principally the difficulty that we are having getting international agreement, those industrial countries who are the worst offenders, new research results' (P16, Inf, AM). The non-informed group perceived solely a stream of natural disasters, 'a heat wave, or if our summers were really cold, if our winters turned into summers and our summers turned into our winters (…) Flooding, did I say that already? Flooding. Just stuff like that' (P23, Non-inf, HC).

There was widespread dissatisfaction with low levels of media coverage of climate change compared to the importance people attached to it as an issue. People explained this as climate change being a poor fit with news values, 'I think it doesn't get enough coverage (…) it's not sexy, it's not being gunned down in the street is it? It's not, it's not Nigel Farage' (P8, Inf, HC). Coverage was seen as cyclical and currently being at a low point in that cycle without major events to drive it, 'it does seem to have died off a bit. It goes through waves if you like' (P6, Inf, AM). The two peak times interviewees mentioned for coverage, appeared to be in line with the literature (Boykoff & Roberts 2007, p.4-5) the initial spike of public concern in the late 80s/early 90s, and a more recent rise in public concern in the late 00s. As low and cyclical levels of coverage were major features people linked closely to the

impacts discourse and often formed part of their interpretation of its meaning, it is worth exploring perceptions of media coverage in more depth in this context.

That the news rarely talks about climate actions was accepted, 'I'm not sure there is very much that they can do, and of course it's not a news bulletins job to actually promote change' (P3, Inf, HC). News coverage was also felt to be poor at communicating the overall nature and significance of climate impacts, 'two minutes at the end of the weather forecast isn't enough (…) so they should have either weekly, or monthly or even six months, saying we are better off than where we were six months or we are worse off, that way then, we know right we need to pull our finger out' (P19, Non-inf, MC). A number of people made variations on this suggestion for more contextualised coverage of impacts, but admitted they were unlikely to be broadcast, or even to watch themselves if they were, 'it should make people aware on a regular basis, rather than frightening people every now and again, so that we are aware of what is going on (…) but then no one would read that (laughs)' (P5, Inf, D). Nobody made suggestions for how climate actions could be covered more critically (as opposed to promoting actions); although a few vague references were made to wanting more positive coverage of things actually being done.

These features of coverage were recognised, particularly in the informed group, as systematically distorting climate coverage in significant ways. Very few people, however, felt the media were being intentionally misleading, 'the more respected media generally quote scientific data and you know give a generally balanced report on what is happening' (P12, Inf, HC). Climate sceptics were largely perceived as an annoying sideshow, not a major threat to the accuracy of news coverage, 'it's quite interesting hearing, well I'm not interested in hearing his opinions, but it's interesting hearing the reaction amongst the scientific community to them wheeling out Nigel Lawson (chuckles)' (P15, Inf, HC). However, a number of people recognised that substantial sections of the media, which they largely ignored, were pursuing a more sceptical line, 'I would probably trust the media that I read' (P2, Inf, AM). Some of the 'science is clear' group were far more overtly critical about the quality of the scientific information in the media, 'insufficient and superficial.

Not enough and it's superficial' (P15, Inf, HC). They also critiqued media coverage for ignoring the wider causes of climate change, 'it rarely get mentions that we have done an awful lot to cause this problem, the UK specifically (…) we've built our prosperity on the CO_2 that we have emitted over the last century' (P15, Inf, HC).

The extent to which these distortions were accepted as inevitable was striking, with little, if any, criticism of news organisations for adopting the values and practices which led to these negative features of coverage. They were accepted either as being inevitable results of commercial pressures, 'it would be nice to see more of that sort of coverage, but I understand that that doesn't really sell newsprint, so it's not going to get the coverage that it probably actually really needs to be' (P7, Inf, AM), or internalised as being the inevitable result of human nature 'and of course you've got the sensational umm, stupid entertainer, celebrity, I'm a celebrity. That's always coming up just that little bit more so, anyway that's what people want to know isn't it' (P4, Inf, HC). These perceptions were not just related to climate change, there was widespread awareness of, and dissatisfaction with, commercial influences leading to coverage across a range of issues focusing on sensational attention grabbing bad news. There was no conception of any alternatives to this trend, beyond a couple of people almost entirely opting out of mainstream news media, 'I don't think they are independent. You find more sources in the, in other places than in the media' (P13, Inf, HC). The idea of systemic reform to strengthen public interest requirements, and the language to describe such reforms, was absent, even among the more critically aware.

The doubtful group identified the same features of the impacts discourse and levels of news coverage, but produced a different narrative about them. The limited quantity and depressing and cyclical nature of media coverage was viewed as reflecting climate change's lack of significance, 'you don't hear anything until something goes wrong, then they make a big fuss about it, and then it dies a death again' (P5, Inf, D). The lack of suggestions for action were seen as reflecting alarmism, 'I just think they are going a bit over the top and it's a bit, I think it's a bit stupid really (…) it's like trying to panic people, because they weren't saying how to prevent it really' (P21, Non-inf, D). There was a general sense that the negative

impacts had been exposed as being non-credible, 'I think hang on there is this one lot saying that this is climate change, warmer wetter winters, and yet we are having this situation where we can't cope because it is too cold, too icy, too much snow (laughs). You know how can you then trust, or believe in what's being said' (P6, Inf, AM). Media consensus was also viewed negatively, 'I would say that maybe 75% of coverage would be very, well, would be uncritically supportive of that, it's described as a given (…) you can't say that you don't agree with it completely, and the term climate change denier, has such echoes of holocaust denier isn't it?' (P18, Inf, D).

Some interviewees, mainly in the informed group, mentioned that media content had played an important role in them becoming aware of and/or deciding to take action on both climate change and wider environmental issues. People were often unable to recall specific details, but it was predominantly impacts discourse content from news or other factual programming. It included traditional environmental issues '(a programme about) the seagulls, the state of the sea. And so it's kind of when you have all these packaging trying to make sure that you try to pick it up and put it all in a plastic bag in a black bin' (P4, Inf, HC). This ranged from half remembered early media coverage of climate change and the ozone hole, 'years ago, by one, when they just started talking about then, and they talked about the skin cancer wasn't it? And I was somehow, well I don't know, I don't know if things changed or they are just not interested anymore (laughs) I don't know (…) I remember like sheep in Australia going blind and things like that' (P13, Inf, HC). It also included much more recent climate coverage, 'the carbon bubble thing was the thing that made me sit up and. They are seriously going to leave all of those natural resources in the earth, in the ground, (…) I never realised that until actually, was it a couple of weeks back I read about it' (P7, Inf, AM). The one specific piece of content mentioned by several people was *An Inconvenient Truth*. Although none said it had been particularly influential for them, it was unique in being suggested as more widely influential, 'you know was it Al Gore, yeah Al Gore, I never watched his movie (…) I guess everything flowing from that was a pretty significant thing, in terms of just raising awareness, umm, has there been anything more significant than that? Hmm, I don't think so' (P14, Inf, AM).

Summary

The impacts discourse is characterised by spectacular images of climate impacts, most commonly melting ice caps and extreme weather events. It is in many ways quite a simple discourse, with climate change often a secondary theme, about which there is little if any contextual information, in coverage that is focused on the events themselves and their alarming nature. It has a greater wider significance because most interviewees saw it as being the most common form of climate media content because of its prominent place in (in particular television) news coverage of climate change.   Most people had seen little if any content about climate change recently. Coverage was seen as being at a lower level than the two earlier peaks in coverage, circa 1988 and 2007 (Boykoff & Roberts 2007, p.4-5), which had had an awareness-raising effect for many. The content of coverage has changed little since the most recent peak, still being dominated by the impacts discourse. Some people in the informed group expected content about some other elements of climate change as well, often related to climate science. However, there were no examples of content about actions, solutions or positive visions for the future in response to climate change. This suggests that the alarming impacts discourse remains a very prominent part of public discourse about climate change; unlike the causation discourse these features were familiar to all the interviewees. However, it was only the informed group who identified memorable examples of this alarming coverage that had been influential on their opinions and/or actions on climate change. The majority of people perceived coverage as being insufficient in quantity relative to the importance they attached to it as a public issue, and also as having persistent flaws in its content in terms of reflecting the urgency of the problem, not covering actions or giving an accurate overview of the issue as a whole. In contrast, the most doubtful interviewees identified the same major features, but criticised news coverage for being alarmist and not sufficiently critical. The distortions in climate coverage mirrored a wider trend interviewees identified in news coverage as a whole towards sensationalist bad news, which was seen as the result of the economics of news and/or human nature. Interviewees lacked the

language of public service requirements to suggest any solutions, so these were largely treated as being inevitable.

6.6 Wider Public Connection Linked to Familiarity with Causation Discourse

Turning from the content of climate discourse to public connection to it, only eight people had ever actively searched for information about climate change. This level of targeted information searching is too low to explain the differences in connection between the informed and non-informed groups.   The results of this searching had also been mixed. While some people felt quite confident, 'certainly at the stage where I was trying to investigate things, I looked at some of it (IPCC reports) in quite some detail, umm since I have been persuaded, I have not paid that much attention to it, because the science is there' (P15, Inf, HC), others had been less successful, 'I guess I have dug a bit more when I have been confused. You know, it's going back a bit but I remember being confused what is climate change? (…) I don't think I am any less confused (laughs) but I do remember looking in to try and uncover a bit more about what that meant' (P14, Inf, AM). The informed group, however, was far more likely to come across, and pay attention to, information about climate change in the course of their normal media usage: 'haven't looked for it, but read it. Because stuff comes to the house sometimes in the post, you know, so just read it, but not looked for it, no' (P17, Inf, HC). The informed group felt the sheer quantity and complexity of information available via search was potentially overwhelming, and the content they received in the course of normal media usage was sufficient, 'I feel that (sighs), there is probably more than I could cope with erm, theoretically I feel confident that I could find the information if I needed to find out' (P3, Inf, HC). The non-informed group rarely came across climate change during their media use, so were much less sure what type of information was out there, '(not) knowing where to look because I don't see much coverage on the news, I would probably just type, go the old fashioned way and type in climate change in to Google' (P19, Non-inf, MC). The greater familiarity of the informed group with the causation discourse appears to be the result of

active monitoring of wider public discourse, rather than targeted search for information about climate change specifically. This type of opportunistic information gathering is consistent with the importance of public connection, at levels sufficient to monitor, but not continuously engage with, a wide range of public issues (Schudson 1998).

The rest of this section explores two elements that appeared to play important roles in the differences in public connection between the informed and non-informed groups; firstly, purposeful daily news connection informed by active monitoring of public issues of potential interest; and secondly, deliberative connection to issues of this type.

Purposeful Daily News Connection

A purposeful daily news connection was characterised by actively engaging with news media with the intention of keeping informed about a range of public issues. There was relatively little difference between the informed and non-informed groups' quantitative responses to questions about media connection (table 6.11). However, important differences emerged from their qualitative description of their news habits that inform the concept of a purposeful daily news connection.

Table 6.11 Media Connection

Media Connection	Informed (15)	Non-Informed (8)	Difference
13. I trust the media to cover the things that matter to me	3.0	3.2	-0.2
14. I generally compare the news on difference channels, newspapers or websites	3.0	3.0	0
15. If I am concerned about an issue I try to find out more about it through the media	4.1	3.6	0.5

Purposeful daily news users typically described using multiple sources, 'I've set my homepage to the BBC so I see news items coming up, but I also have feeds to, to *The Guardian* and to *The Daily Telegraph*' (P3, Inf, HC); on multiple occasions during

the day, 'I listen to a good chunk of the *Today* programme in the morning (…) and about three or four times a week I listen to the one o'clock programme, and occasionally I listen to the umm, *PM* at five pm' (P5, Inf, D). The news is an important part of their daily routine, enabling them to follow public issues they are interested in, 'I use it (BBC News website) roughly about twice a day (…) they can sometimes cover a broad range of topics if I choose to want to explore further within a news item' (P7, Inf, AM). Of the eleven people identified as purposeful daily news users, only one was not in the informed group, P11, whose lack of familiarity with climate discourse is, at least partly, the result of deliberately limiting their attention to climate coverage.

Not having a purposeful daily news connection did not mean an absence of any news connection. Only four people did not use at least one form of news media four or more times per week (P6, 19, 21 and 23) and all interviewees used at least one form of news media more than once a week. However, there was substantially less purposeful attention to the news from those who did not have this type of news habit. Interviewees without a purposeful daily news connection could be divided in to two groups: those who had reduced their news connection deliberately; and those who did not relate their weaker news connection to wider public motivations. In the first reduced news connection group, interviewees had a mix of motivations for consciously reducing their daily news connection: three felt dissatisfaction with the mainstream news media agenda, 'it's concentration of celebrities and trivia basically, when there are more weighty issues that we should be dealing with really' (P15, Inf, HC). Two of these three interviewees sought out alternatives to mainstream news organisations, but P23 rejected any media connection to public life, 'I don't trust anything I read, whether it is on the internet or in a newspaper (…) I think that they are just trying to sell a story, rather than it being the truth.' Interestingly, all three people with this critical view of mainstream news were convinced that climate change is anthropogenic. While P10 had deliberately temporarily reduced his news use as a result of life circumstances, living abroad and concentrating on his studies, which reduced his links to public life. Figure 6.3 shows which form of news connection each interviewee had, indicated

by the colour of their bubble. To aid comparison the interviewees are positioned as they were in Figure 6.2, according to their certainty about human causation of climate change and membership of the informed or non-informed group.

Figure 6.3 News Connection

Mainly Human Activity (8)

Natural Processes and Human Activity (12)

Not Sure if Climate Change Happening (3)

Informed Group (15)

13 17 18
3 12 15 1 2 6
4 8 7 14 16 5

Non-informed group (8)

23 10 19 20
9 22 21
11

Key:
Purposeful Daily News Connection
Reduced News Connection
Weaker News Connection
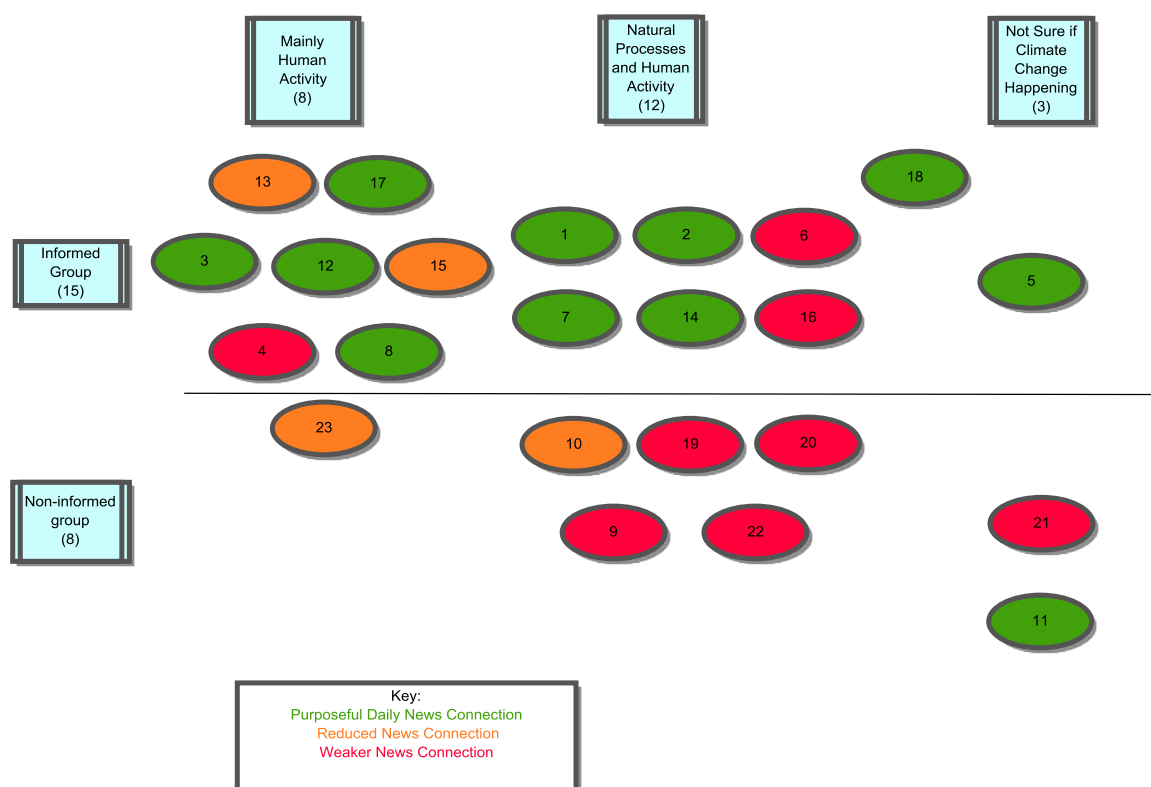
The second group had weaker news connection, some people in this group were regular news users, 'I watch BBC news like I say, four of five times a week in the morning when I wake up and I am having breakfast' (P9, Non-inf, MC). However, this was not informed by the public motivations of those with a purposeful daily news connection, rather than following issues of interest they just wanted to have a general sense of what's currently in the news, 'I pick up on general headline topics, but no I, it is not a good philosophy I understand, but ignorance is bliss in some ways' (P4, Inf, HC). Their news use was often a by-product of their daily routine, rather than an end in itself, 'if I just come in from work, or I am just sitting in the living room, it's always on in the background. So I do pick up little stories here and there, I wouldn't say I sit down and watch it' (P21, Non-inf, D).

A large majority of people looked for more information about issues they are concerned about (table 6.11, question 15); only two people disagreed with this question, reflecting their high levels of disconnection with public life (P21, Non-inf, D), or distrust of the media (P23, Non-inf, HC). While everyone tended to be led by what was in the media at the time, there were qualitative differences in the types of issue they tried to find more information about. Those with a purposeful daily news connection tended to explore issues they already had an interest in, 'for instance that women (Caroline Criado-Perez) who campaigned about women on bank notes and the hatred that she faced (…) that is something else I do follow because, you know, I am a feminist' (P8, Inf, HC). Those without this purposeful news connection tended to only follow up on the biggest and/or most attention grabbing stories, 'maybe if a very famous person has died in an accident or something, then I will look more into that' (P9, Non-inf, MC).

Deliberative Public Connection

The extent to which people had a deliberative public connection was also an important difference between the informed and non-informed groups. Deliberative public connection is more than simply attention to the public world, it involves active engagement with specific public issues. This does not necessarily have to involve taking action on these issues, but people must at least be actively seeking to reach an informed position on public issues, often by deliberating about them with others.

The two largest quantitative differences in public connection between the informed and non-informed groups were closely related to deliberative public connection, talking politics and understanding the important issues facing the country (table 6.12). These measures appeared to be closely related, only one person's answers (P22, Non-inf, MC) to these two questions varied by more than one point on a five point scale. The rest of this section, therefore, anchors people's qualitative descriptions of their deliberative public connection to their political talk score.

Table 6.12 Public Connection

Public Connection	Informed (15)	Non-Informed (8)	Difference
1. Being involved in my neighbourhood is important to me	3.7	4.1	-0.4
2. I often talk with other people about political issues that are important to me	**4.0**	**2.9**	**1.1**
3. I don't get involved in political protests *	3.0	2.7	0.3
4. People who know me expect me to know what is going on in the world	3.8	3.4	0.4
5. Politics has little connection to my life*	3.6	2.9	0.7
6. I have a pretty good understanding of the issues facing our country	**3.9**	**2.7**	**1.2**
7. I feel that I can influence decisions in my area	3.3	2.7	0.6
8. Sometimes I feel strongly about an issue, but don't know what to do about it	3.2	3.1	0.1
9. I trust politicians to deal with the things that matter	2.1	2.9	-0.8

* Negatively worded items have been reverse coded so that a high value score indicates the same type of response on every item to aid comparison

The three people who strongly agreed that they often talked about political issues shared three important deliberative characteristics: (i) they explored important public issues, 'a wide range of issues, erm very important (chuckles) to the whole running of the country I guess' (P14, Inf, AM). (ii) They also actively sought out other people for this type of talk, '(I talk politics) in our book group a lot, and because they are the same (politically engaged), I started the book group so I obviously wanted people who would want to read the same kind of books, well we've all got different tastes but you know what I mean' (P17, Inf, HC). (iii) Critical engagement with the media was also an important part of their political talk, 'we (interviewee and partner) sit down and watch the main evening news together which, a bit sad, we record quite often stop and argue about the things, about the way things are covered, what's being said so yes we certainly talk about it every night' (P8, Inf, HC). Interestingly, climate change did not rate highly as a topic for political talk in their social circles, perhaps reflecting its relatively low level of importance as a political issue generally.

The twelve people who answered 'agree' to often talking about issues important to them, all initiated talk about politics on a fairly regular basis, but this talk fell short of one or more of the three characteristics of those who strongly agree. (i) They were more likely to qualify their talk as being non-political, 'I do (talk about the news) with friends, I'm not, I'm not really, not a lot, I don't think any of us are really that political' (P1, Inf, AM). (ii) Some people in this group were limited in their opportunities for political talk, either by personal circumstances – 'well a good friend who unfortunately recently died, and my brothers really. I am no longer working, so I don't talk much in work' (P5, Inf, D) – and/or by the lower political engagement of those they do talk with, 'I get a little bit too, carried away and I end up shouting and swearing (laughs) you know, but I just can't keep quiet either' (P13, Inf, HC). (iii) Their talk was more likely to follow the media's agenda, rather than engage with it critically, 'tend to just pick up on daily things that are on the news, umm…' (P15, Inf, HC). This group did include three people in the non-informed group; while three people from the informed group did not agree that they talked about politics often (figure 6.4). The colour of the bubbles on figure 6.4 shows the response of each interviewee to the question 'I often talk with other people about political issues that are important to me', again with the interviewees positioned as they were in previous figures according to their position on human causation of climate change (x axis) and membership of the informed or non-informed groups (y axis).

Figure 6.4 Political Talk

Mainly
Human
Activity
(8)

Natural
Processes
and Human
Activity
(12)

Not Sure if
Climate
Change
Happening
(3)

13   17

18

Informed
Group
(15)

3   12   15

1   2   6

5

7   14   16

4   8

23

Non-informed
group
(8)

10   19   20

9   22

21

11

I often talk with other people about political
issues that are important to me:
Strongly Agree
Agree
Neither agree not disagree
Disagree
Strongly Disagree
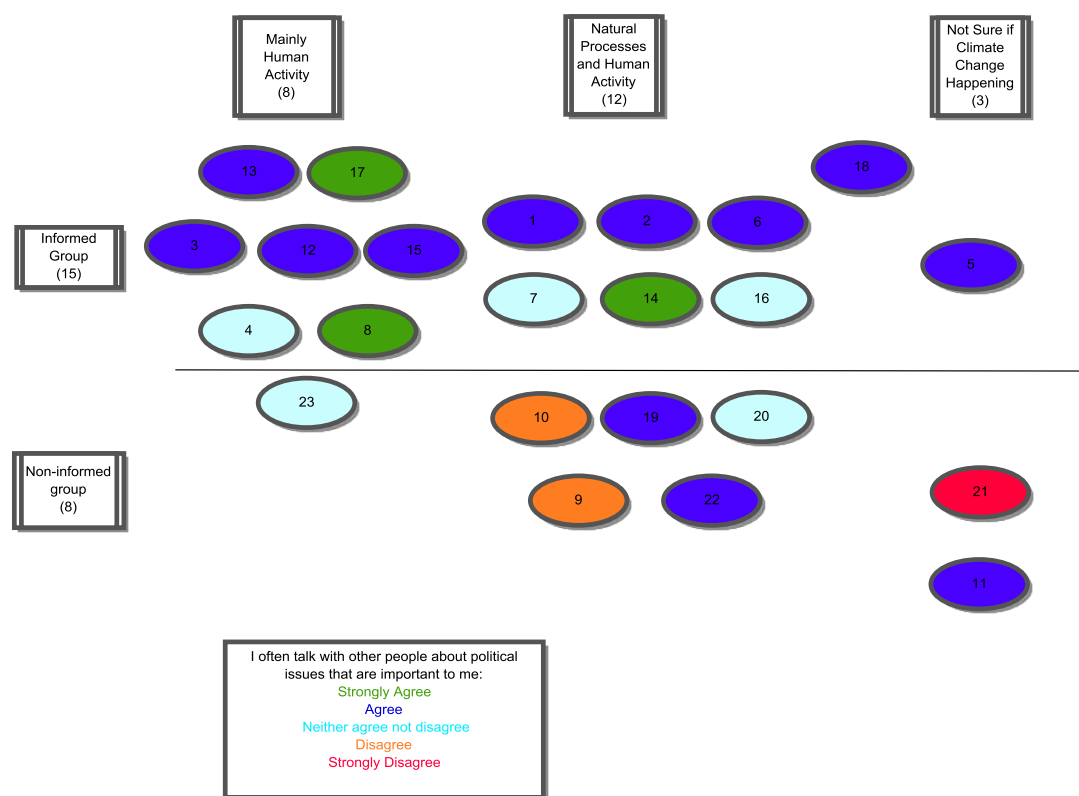
Amongst the five people who neither agreed nor disagreed, two did initiate political talk, but were strongly limited either by a dislike of strong views – 'I'm not an argumentative person (…) So no we don't tend to do too much, we might raise the odd issue and discuss it, oh I heard such and such' (P4, Inf, HC) – or by personal circumstances. However, this group mainly only took part in political talk when someone else initiated it, 'like people who ask me, mainly just like my step-mam, have you seen this on the news, you should watch the news, and all of this' (P20, Non-inf, MC). The two people who disagreed with this question were current undergraduates who felt there was limited opportunity for political talk in their student life, and what talk there was, was of low quality, 'I find that the people that I socialise with will, talk about it (terrorism) but to a limited extent. So we will all agree that it is awful but in terms of actually going into a deeper conversation about it (…) it's not that kind of culture' (P9, Non-inf, MC). Finally P21 was the one person to strongly disagree and expressed the least interest in political talk, 'I got asked about it (the election) in work, but umm but I didn't really say I voted, just kind of not say, I got involved, but I think everybody thought I voted, but I didn't.'

Those people who did not agree or strongly agree that they talked about issues that were important to them described little talk which functioned as deliberation towards reaching an opinion on public issues.

Summary

The frequency of targeted search for climate information is far too low to explain the difference in connection to climate change between the informed and non-informed groups. Instead, it seems familiarity with the causation discourse is the result of consuming climate content as part of their wider public connection. Two important elements of this connection were identified: firstly, a purposeful daily news connection, actively monitoring multiple media sources in order to stay informed about public issues; and secondly, deliberative public connections through which people actively engage with and talk about public issues, deliberating to reach an opinion on them.

6.7 Climate Change not Seen as a 'live' Political Issue

Climate politics, either domestic or international, were largely only talked about during the interview by the informed group. The two exceptions to this appeared to be informed by their atypical views on the causations of climate change. P5 the only member of the informed group who did not mention climate politics was also the only person in the informed group not sure climate change is happening. Conversely, P23 the only member of the non-informed group who did talk about climate politics was also the only person in the non-informed group who thought climate change was mainly human caused. Even in the informed group awareness of the climate policies of UK political parties was low. There was a general sense that some action had been taken, 'Britain has seemed to, commit itself to reduce CO_2 consumption and production' (P12, Inf, HC), but the prospects for further progress were seen as uncertain at best. In addition to widespread concerns about the short-termism of all politicians, the political momentum for further action was seen as limited by there being very little to choose between the main parties on climate change, 'the difference between Conservative and Labour on fracking for

example I find almost miniscule. And I have heard Labour comment on what their differences are and it doesn't sound particularly great' (P14, Inf, AM). P18 also perceived a very limited mainstream policy choice, but with a very different anti-action framing, 'because Conservatives are more or less following, well maybe they have been mediated by the Liberals, so they are following very similar policies to what Labour had. You know it's still called the Department of Energy and Climate Change, so it is sort of setting in stone that climate change is bad.' The lack of differentiation between parties was a more common concern than political polarisation. Climate deniers were perceived as mainly an American or Australian phenomenon, and more of a curiosity than a political barrier, 'then they will have some bloody nut case on, usually something to do with America (…) denying it but I just think the science is, the science is there' (P15, Inf, HC). As a result climate change was seen as a low priority, non-live issue in UK politics, both for the politicians and also for many of those interviewed, including some of the most informed and concerned about it.

There were three exceptions to this, who expressed enthusiasm for political action to tackle climate change. Two were Green Party supporters who saw the Greens as offering an alternative to the major political parties that extended far beyond climate policy, and were very frustrated at the lack of public support for these changes, 'I think that the Green Party offered a sort of really good deal, and not many people voted for them, so it's a big change and people are too scared to take change' (P23, Non-inf, HC). P14 had also engaged with climate policy as part of a larger change, Scottish independence, 'Scotland could be self-sufficient from wind and wave if it was properly invested in by something like 2040, 2050 I think it was, it was something like that. Umm, and I think that's a fantastic target to go for.'

Differences in opinions on anthropogenic climate change amongst supporters of different parties were in line with what would be expected on a right/left basis (Stokes 2015) (table 6.13). However, with the exception of Greens who all selected mainly human causes, the differences between parties were fairly minor. One potential explanation for this limited ideological polarisation is the UK cross-party consensus about the need for action on anthropogenic climate change. However,

no one mentioned the political consensus and most interviewees were unaware what the major parties' policies on climate change were, and those who did have some idea of their policies were unable to identify significant differences between them. This suggests that if the cross-party consensus has helped avoid polarisation, it has done so by neutralising climate change as a policy issue, rather than by winning public support for action.

Table 6.13 Political Polarisation and Causation of Climate Change

Causation of Climate Change Party Identified With	Mainly Human Activity	Natural Processes and Human Activity	Not Sure If Climate Change Is Happening
Conservative (5)	20%	60%	20%
Green (3)	100%	0%	0%
Labour (8)	38%	50%	13%
Liberal Democrat (3)	33%	66%	0%
Nationalist (Plaid Cymru/SNP) (3)	0%	100%	0%
None (1)	0%	0%	100%

Summary

The general perception was that while some progress has been made on climate action in the UK it has stalled recently. Only the informed group talked about climate politics in the interviews and even they largely had low levels of knowledge about the details of climate policies, and attached low importance to it as an electoral issue. It was noticeable that the three people who talked most, and most enthusiastically, about domestic climate politics had all been inspired by climate action being framed as part of a larger scale political transformation, in two cases the Green Party challenging consumerist society and in the other an (energy) independent Scotland. Climate sceptics were perceived as non-significant fringe players in the UK context, but the UK political consensus on climate change was not mentioned by any interviewees suggesting very low public awareness. The political consensus may be avoiding ideological polarisation by reducing the public profile of climate change, rather than by building support for public action.

6.8 Critical Engagement with News Media and Certainty about Causes of Climate Change

Unsurprisingly members of the informed group were heavier news users across all types of media (tables 6.6, 6.14-17). Qualitative analysis of media use distinguished between interviewees whose had reflected on their choice of news sources as part of a more critical media engagement, typical of a purposeful daily news connection, and those whose news use was largely a by-product of their larger routines. In order to focus on interviewees' choices of news sources that were important elements of their public connection, the analysis looked at the most regular (four or more times a week) users of each media source. Those interviewees whose regular news source choices were informed by this type of critical engagement were more likely to have definite opinions about anthropogenic climate change, being in either convinced or doubtful groups, rather than mixed causes groups. This was the case even within the generally more definite informed group, although there were interesting variations between different news media.

Table 6.14 Radio News Frequency

Radio News per week	4+	2-3	Once	Less than once	Never
Informed (15)	80%	7%	0%	13%	0%
Non-Informed (8)	38%	0%	12%	12%	38%

Table 6.15 Television News Frequency

Television News per week	4+	2-3	Once	Less than once	Never
Informed (15)	53%	20%	0%	13%	13%
Non-Informed (8)	25%	38%	0%	25%	12%

Table 6.16 Internet News Frequency

Internet News per week	4+	2-3	Once	Less than once	Never
Informed (15)	60%	7%	0%	27%	7%
Non-Informed (8)	25%	25%	38%	0%	12%

Table 6.17 Local Newspaper Frequency

Local Newspaper per week	4+	2-3	Once	Less than once	Never
Informed (15)	7%	7%	27%	33%	27%
Non-Informed (8)	0%	0%	25%	25%	50%

Five of the six most regular newspaper readers were among those with the most definite opinions about the causes of climate change. Their choice of papers was consistent with ideological and/or political polarisation: the three doubtful regular readers read right-wing papers, *Daily Mail* (P11 and 18) and *The Times* (P5, Inf, D), and the two most convinced about anthropogenic climate change read a left-wing paper, *The Guardian* (P8 and 17). The wider ideological position of their papers was an important factor in both their choice of paper and their being regular readers.

Seven out of eight of the most regular BBC Radio 4 listeners had definite views on anthropogenic climate change. However, they were much less polarised than the regular newspaper readers with six of them being in the mainly human causes group; possibly reflecting that the ideological position of Radio 4 was not mentioned by anyone as a reason for choosing it as a news source. Instead, the most common reasons for choosing Radio 4 were that its news was broader, more in-depth and critical, 'I do, I like *PM*. They tend to be able to say things that they can't necessarily say on TV' (P1, Inf, AM). Notably, all of the science is clear group listened to Radio 4 regularly because of the quality of its science coverage, 'I like scientific programmes although I am not a scientist (…) there are very interesting discussion programmes on Radio 4 practically every day' (P3, Inf, HC). The same effect was not present for regular listeners to all forms of radio news, either other BBC stations or commercial radio. People generally had different reasons for

listening to these stations: convenience and keeping up-to-date, rather than in-depth coverage, 'it's always there in the background and I tend to wake up to Radio 5. So I tend to listen to, it's almost like rolling news in the morning' (P14, Inf, AM). This relationship may be the result of Radio 4 providing more in-depth coverage of the causes of climate change and/or its more critically engaged listeners being more likely to seek out this type of in-depth coverage across all media types.

No similar pattern emerged where regular viewers of a specific TV news channel had more definite opinions about anthropogenic climate change. However, a similar link did emerge between critical choice of news channel and having definite opinions on climate change; again mainly that it is human caused. Less critical viewers gave little thought to their choice of news source, 'I think I am a creature of habit (laughs). At my age, I was brought up on the BBC, and BBC news' (P6, Inf, AM). Critical viewers shared similar concerns about mainstream television news, 'if you watch ITV news and BBC news they tend to pretty much mirror each other and you get the same thing' (P14, Inf, AM); but in contrast to radio news no clear preferred source, equivalent to Radio 4, emerged for TV, 'Sky news as well as to BBC news and sometimes look at Al Jazeera and even Russia Today online because I feel that the BBC has settled in to kind of, a rating race with other, I also look at news on 4, Channel 4 news' (P3, Inf, HC). That the more critical regular television news viewers were still more certain about anthropogenic climate change despite the lack of a clear preferred television news source, suggests that greater critical engagement with news generally plays an important role in reaching a definite view on climate change, beyond the specific influence of any particular news source.

Summary

Examining patterns of news media consumption throws further light on the role of a purposeful daily news connection in the acquisition of the causation discourse. Firstly, it reinforces that it is important for this type of public connection that people not only consume news media regularly, but that their choice of news is based on some level of critical reflection. Secondly, those people whose choice of regular news source is informed by this type of purposeful habit appear to be more

certain in their opinions about anthropogenic climate change, one way or the other. These opinions can be driven by ideological positions, as in the case of regular newspaper readers, but greater certainty was also found for radio and television news without the same ideological divisions being evident.

6.9 A Norm of Silence around Climate Change

Climate Talk

Interviewees' self-reported level of climate talk in their everyday life was low. The majority of people had talked about climate change, but for most it was an infrequent topic of conversation at best. Ten out of eleven people who had talked about climate change outside of their home were in the informed group. Even among those who talked politics most regularly, climate change only came up occasionally, 'we have a bit of a chat about it, not often but a bit of a chat. The sort of people that I mix with are generally into things like that, they are conscientious citizens' (P17, Inf, HC). Interviewees saw this fairly low level of climate talk as typical of their social circles. Quite often it was contrasted with the higher level of a particular member of that circle, whose interest in climate issues was seen as admirable, 'most of my friends are interested in it actually, pretty much all of them. They are interested in, but they are not activists if you know what I mean, they are not going to go out on a demonstration or anything like that. Apart from my Green Party member, she would' (P1, Inf, AM). Interestingly, this green friend was one of the rare contexts in the interview in which political participation was mentioned as a form of climate action, but it was framed as something exceptional and contrasted to 'normal' civic engagement actions. These enthusiastic greens may be admired by many, but the three interviewees who appeared to occupy this position also experienced a strong social pressure not to talk about climate change too much, or in unacceptable ways, 'yeah we do talk. But with people who are already environmentalists, you don't need to talk, maybe just swapping the ideas, yeah. And umm, with the others (...) oh well they tend to agree but I don't know whether

they take anything on-board (laughs) or you know they are like yeah yeah yeah, just shut up (laughs)' (P13, Inf, HC).

Five people only talked about climate change at home with family. They perceived that there were limited opportunities to talk about climate change outside of the home, and were usually prompted by climate change appearing on TV, 'not many people talk about it really. Umm I tend to talk about it more to my wife, if you watch say something like a *Horizon* programme we talk about it' (P6, Inf, AM). Among these interviewees those in the non-informed group were more likely to express dissatisfaction with these limited opportunities for climate talk, 'outside of the family not too many people that I talk about, because again it's not a big topic, even though I think it is a big topic personally, it's not being talked enough about for people to understand what they can do to help climate change' (P19, Non-inf, MC). They were also limited by a lack of confidence in their own knowledge about climate change, 'it's because he (partner) thinks he knows it all (laughs). So I don't want to talk about it with him. I don't know really, I think it's because I don't really know that much, like he will say things, oh yeah that's because of that or whatever' (P22, Non-inf, MC).

Seven people had not talked about climate change at all, 'don't think I have ever had a discussion with anyone about it (laughs) not at all' (P11, Non-inf, D). None of this group expressed any desire to talk about climate change more. There was an interesting difference in the perceptions of non-talkers in the informed and non-informed groups of what people they knew thought about climate change. Those in the informed group assumed that other people they knew accepted that climate change is human caused, 'no, never really talk about it because, probably because, umm it's, it's there, in my circle I believe that there is no doubt that it is happening and human activity is the principal cause of that' (P16, Inf, AM). On the other hand, those in the non-informed group were uncertain what people they knew thought about climate change, 'not really, I don't know if my dad wants to save money or he wants to save the planet' (P20, Non-inf, MC).

Public Talk

Given this low level of talk, it is useful to compare climate change to the three types of public issues that generated the most public talk. (i) The most common type was the attention grabbing stories that other people were talking about. For the informed group this tended to be a headline news story, 'the Charlie Hebdo thing of course caught my attention. I was in, I felt quite strongly about that' (P16, Inf, AM). In the non-informed group this was usually a shocking human interest story, particularly one with a local connection, 'something that is like a shock sort of thing (…) something that would happen locally, but nothing like somewhere in another country or, just something that is close, not about the politics (…) then that was like the talk, everyone did talk about it' (P20, Non-inf, MC). (ii) Major political stories were mainly followed by the informed group; at the time of the interviews these were the forthcoming UK general election and the recent Scottish independence referendum. (iii) Cuts to public services was the one issue followed and talked about in similar ways by both groups, often focusing on a service that person had a personal interest in. Climate change is a poor fit with all three of these areas: (i) it is rarely in the news headlines or framed as a local human interest story, (ii) it is not viewed as a live political issue, (iii) it is not related to a high profile public service under threat from cuts; the service mentioned most frequently in the context of climate change, domestic recycling, is not under threat from cuts.

The non-informed group generally expressed a much higher interest in local news, in line with their higher interest in being involved in their local area, 'I think that the BBC cover a good range of knowledge plus they also do BBC Wales news so you get a choice of what's happening in the UK overall, and what's happening in Wales' (P19, Non-inf, MC). The non-informed group made more use of their peer-to-peer social media networks to keep them up-to-date with, and join in the conversation about very local news. This suggests there may be potential to engage the non-informed group with climate change via local news stories. Although no one mentioned seeing any local news stories of this type, several people in the non-informed group mentioned having personally seen local environmental projects and were strongly positive about these, 'I've seen people in Roath Park planting and

things like that, which is something that, I think I have looked into on the internet with trying to be involved with that kind of thing (…) a community atmosphere is really important. I think a lot of people would be interested to come together to do something' (P9, Non-inf, MC).

Turning to the types of stories that people deliberately avoided, celebrities and sports were both love/hate stories; several people had no interest in, or even actively disliked, them, but others were very interested in them. The most commonly avoided story type though was depressing, large-scale bad news; although climate change was not mentioned specifically, the common features of climate news described in the interviews overlap with the main features identified for this type of news: sensational tragedies, large-scale natural disasters and suffering in the developing world. The common reaction to this type of story was not disinterest, but a type of protective distancing, 'so you know children starving, I'll look and then I won't' (P11, Non-inf, D). They were also seen as less relevant because of a perception that issues of this type could not be affected by public action, meaning they would inevitably be happening somewhere, 'there is always a sign of education girls in umm, not in Africa or whatever, there is always, or social domestic abuse, if you text this number you're donating three pound or something. I am quite happy to do that, but don't ask me to watch and read about it you know' (P4, Inf, HC). This feeling of inevitability and futility in the face of a distant large-scale disaster was quite a common reaction to climate change in the later part of the interview.

Summary

Overall levels of talk about climate change were low; those who did talk about climate change outside of the home were overwhelmingly likely to be in the informed group. The majority of those who did talk about climate change outside of the home had a low level of talk they saw as typical of their social circle. This level of talk was often contrasted with one or more people within their social circle who were more actively engaged with climate change. A small number of people appeared to be this person within their own social circle; they expressed frustration

with this position and a tendency towards self-censorship because of the lower importance others attached to climate change. Some people only talked about climate change at home with their family, often prompted by media coverage of the issue. In this group, there was evidence that some people in the non-informed group might have liked more opportunity to talk about climate change outside the home, but felt limited by its low public importance and their own perceived lack of knowledge about the issue. A number of people did not talk about climate change at all, however, if they were in the informed group they assumed that people they knew accepted that climate change was a human caused problem, whereas those in the non-informed group were unsure what people they knew might think about the issue. It was also noticeable that nobody expressed the opinion that there was too much talk about climate change. Climate change shared few of the characteristics of the most talked about news stories; it is rarely in the headlines, framed as a local human interest story, the centre of political debate or the subject of local public service cuts. However, current coverage shares many of the features of the most avoided stories: sensational tragedies, large-scale natural disasters, and suffering in the developing world, although climate change was not mentioned as a typical example of this type of story.

7 Climate Actions and Public Connection

The previous chapter explored the other major discourses (causation, impacts and action-gap) about climate change that emerged during the interview and placed these in the context of interviewees' wider public connection. This chapter focuses on the action discourse identified in the media sample by exploring the types of climate actions that interviewees were aware of, and took; and places these actions in the context of their wider public participation. First, these climate actions are compared to the types of actions found in the action discourse in the media sample; a similar set of individual civic engagement actions are found to dominate. Next interviewees' suggestions for public policy are contrasted to their very limited suggestions for political participation, despite the importance they placed on government responsibility for climate action. Then I explore the different framings of personal responsibility for taking climate actions that interviewees used, followed by their perceptions of sources of information about climate actions. Moving on to wider public action, the chapter looks at interviewees' political participation and their perceptions of the political system. Finally, interviewees' high levels of collective civic engagement action in wider public life are contrasted with low levels of this type of action in relation to climate change.

7.1 Public Awareness of Climate Actions

Interviewees were asked to list off the top of their head actions that could be taken to tackle climate change. They were not at this stage asked to evaluate their efficacy, nor which actor should take them, so public policy suggestions were also made. A primary action was identified for each interviewee, based on which action they talked about first and for longest, often the same action; they were almost evenly divide between public actions and public policies (table 7.1). People were also asked what climate actions they had taken (any actions that they knew were publicly associated with climate change whatever their motivations for taking

them). In both cases, the types of public actions mentioned by the interviewees were dominated by forms of individual civic engagement, to an even greater extent than the media sample (table 7.2). In contrast to political actions, civic actions do not attempt to influence other actors such as government or business to take action; while individual actions, unlike collective actions do not involved any shared attention or organisation (see table 3.8 for full typology).

Table 7.1 Primary Climate Actions

Primary Top of Head Action	Public
Public Action	**44%**
Individual Civic Engagement	**35%**
Recycling/Waste Reduction	*22%*
Personal Transport	*4%*
Regular Energy/Water Conservation	*4%*
Eco-shopping/Eating	*4%*
Collective Political Participation	**9%**
Activism	**48%**
Public Policy	
Choice of Energy Sources	*13%*
Challenge Consumerism	*9%*
Transport Infrastructure	*9%*
Challenge Corporate Power	*4%*
Reforestation	*4%*
Challenge Political Inertia	*4%*
International Climate Negotiations	*4%*
None	**9%**

Table 7.2 Public Actions

Action Type	Media Sample	Interviewees - Top of head	Interviewees – Own Actions
Civic Participation - Attention - Individual	56%	4%	4%
Civic Participation - Attention - Collective	44%	4%	0%
Civic Participation - Engagement - Individual	91%	52%	87%
Civic Participation - Engagement - Collective	44%	0%	4%
Political Participation - Formal - Individual	22%	9%	9%
Political Participation - Formal - Collective	16%	9%	0%
Political Participation - Activism- Individual	18%	4%	4%
Political Participation - Activism - Collective	22%	9%	4%

The informed group, particularly those who thought climate change was human caused, were far more likely to qualify individual civic actions by saying that larger-scale public policy was more important, 'there is individual actions but I'm, you know like using the car less, not having two cars, not flying on holiday to go on holiday, but I think you know that the real action has to come from the government level' (P16, Inf, AM). In contrast, the non-informed group mentioned few, if any, policy ideas. This appears to be the result of a lack of familiarity with policy options – 'umm so yeah companies are a big problem as well, but I can't, I don't really know why they are a big problem, I just know that they are a big problem' (P23, Non-inf, HC) – as they were no less likely than those in the informed group to say government has responsibility for tackling climate change. Recycling was the most common suggestion, as it was often one of, if not the only, action the non-informed group were familiar with, 'Climate change? I, the only thing I can think of top of my head is recycling? If we recycle more would that help?' (P19, Non-inf, MC). The two people who did not suggest any actions at all, were the two people in the non-informed group who were not sure that climate change is happening, 'I don't know like, just speaking of the whole ice thing they can't really do anything about that, because you can't, you know, stop the Sun and whatever' (P21, Non-inf, D).

7.2 Climate Actions Dominated by a Set of Familiar Individual Civic Engagement Actions

The same five types of individual civic engagement actions that dominated the media sample were most common in the interviews (table 7.3). The two core types of action that came to mind most often were personal transport choices and recycling/waste reduction, 'that could be done? So like recycling and like walking to work. Car sharing, we, I've said recycling didn't I?' (P22, Non-inf, MC). Much greater importance was attached to personal transport choices, the most common action type in the interviews, which only ranked fifth in the media sample, 'stop using the cars. First of all (laughs)' (P13, Inf, HC).

Table 7.3 Individual Civic Engagement Actions

Civic Engagement Individual	Media	Interviewees - Top of head	Interviewees – Own Actions
Personal Transport	40%	48%	61%
Recycling/Waste Reduction	62%	39%	52%
Regular Energy/Water Conservation	76%	22%	52%
Eco-shopping/Eating	53%	13%	48%
One-off Energy/Water Conservation	65%	17%	35%
Indirect Behaviour	36%	0%	13%
Eco driving	15%	0%	4%
Other (Planting trees)	0%	4%	0%

Two core types of civic action

This pair of personal transport and recycling was widely framed as normal behaviour; people were generally reluctant to attach any ethical significance to taking these actions, 'I work from home two or three days a week now, so I don't drive around as much as I used to. Umm, I wouldn't say that was some great, I mean that's my life has changed, not because I have become some saintly person' (P14, Inf, AM). The importance of other, non-climate motivations was recognised in establishing these actions as normal behaviour, 'I think personally I, prior to making a choice to do or not to do something I don't think is this going to effect the climate you know? Umm, no I am driven more by domestic budgets yeah, rather than, an altruist sort of thing (…) not having the central heating on timer when we are not in the house. Reducing the use of the car, umm etcetera etcetera, you know the, the obvious things' (P16, Inf, AM). Their efficacy as climate actions was generally implicitly accepted, but rarely commented on, although sometimes the *small actions* repertoire was drawn on as it fits well with this unremarkable normality, 'because I do think that it's day to day things that you need to change, rather than one thing a year, that's not really going to help' (P1, Inf, AM). Even amongst the most doubtful these actions were accepted as normal behaviour, although their efficacy or necessity in relation to climate change was sometimes questioned. Overall these actions were mainly framed not in terms of small actions and

cumulative efficacy as in the media sample, but as a type of green domesticity that is unremarkable and uncontroversial.

That household recycling appears to be seen as the prototypical climate/environmental action is consistent with past research (Eurobarometer 2014, p.38). As the barriers to action are low, being compelled to take action was seen as reasonable, 'like I recycle, I do that so I don't get fined. But I did want to recycle anyway, because it's obviously good, it's better, it's greener' (P20, Non-inf, MC). Personal transport choices were viewed as more constrained by wider policy contexts – 'well, we have done quite a lot, but yeah we use cars too much basically, we live in a rural area, what bus service there was has been cut anyway' (P15, Inf, HC) – and other conflicting motivations, 'what I could do is not fly, going abroad, but I, it's just to be able to get away sometimes' (P2, Inf, AM). Reflecting varying levels of climate concern, some personal transport choices – 'you know I've got a fairly modest car, when I go out, I tend to try and batch things up, so I wouldn't go out and do something over there and then the next day do something over there' (P2, Inf, AM) - were more motivated by climate reasons than others, 'like I didn't mean to buy an ecocar, it just happened' (P20, Non-inf, MC).

Additional civic actions in informed group

The three other common types of civic engagement were mainly mentioned by the informed group. The relatively low frequency of regular and one-off energy/water reduction actions may be partly explained by these being inflated in the media sample by the number of energy sector communicators. The specific actions mentioned were largely the same ones found in the media sample: switching off lights and plugs, not overfilling the kettle, showers instead of baths (regular actions) and installing insulation, more efficient boilers, energy efficient light bulbs (one-off actions). As with the two core actions, the language of green domesticity was frequently used, framing these actions as both unremarkable – 'I'm not quite sure what, what, I mean we, we try to be efficient, you know, in our use of electrical, and gas consumption you know in the house, and we have insulated our home and all the rest of it' (P12, Inf, HC) – and simple (financial) common sense 'energy efficient

windows (laughs) so my bills are not so high' (P22, Non-inf, MC). A number of people, however, did talk about these actions as something they pursued in a more active way, driven by a desire to minimise their environmental impact, 'most of the lights in the house are eco-lights, they are not as good as some of the old style, some of them aren't as good, but I am putting them in anyway because I feel as if I need to' (P7, Inf, AM). Despite these rhetorical differences, the actions being taken were largely the familiar ones found in the media sample. P13 (Inf, HC) was unusual in also actively seeking out additional reduction actions, 'well the newest thing we are doing is, when you wash the dishes you keep the water and you flush it with that, we save, well you know how much water we saved, just not flushing the toilet with a toilet tank? I tell you (…) we had the bill I think it was nine months and it was still two thirds lower than the previous one, two thirds! So (laughs) I am like wow.'

Eco-shopping/eating actions had two main drivers; firstly, a general desire to reduce their overall levels of consumption, not always driven by climate concerns, 'you know, rather not be on that kind of consumer wheel, that's if I am completely honest more about the way that those goods are produced than about climate change' (P8, Inf, HC). Secondly, there was also awareness of a set of personal consumption-related issues, including food miles and a desire to shop locally, 'I try to buy locally up to a point, I tend not to buy things that have been unnecessarily brought in but, (tuts) I mean flowers and vegetables grown in Kenya for instance and so on in the supermarkets' (P3, Inf, HC); other actions mentioned included purchasing eco products, avoiding damaging products and reducing, or eliminating, meat consumption. A number of people expressed uncertainty or anxiety about their ability to consistently meet these ethical consumption standards due to conflicting ethical concerns (particularly between reducing food miles and supporting farmers in the developing world), imperfect information about product impacts and the cost of green products. The rhetoric of green domesticity was not used to describe these types of action, presumably because their anti-consumerist focus and relative novelty (several people mentioned these actions were something they had only recently become aware of) makes them far less compatible with its

logic. The scale of consumption group frequently used strong moralising rhetoric about these actions, 'people are so overfed with all the shite we have, sorry, things we have. You don't need to manufacture anything new ever, (mock voice) 'but we need a new iPhone 8', do you?' (P13, Inf, HC). This anti-consumerist framing also differs from the main framing of these actions in the media sample as lifestyle, rather than ethical, choices, although a few of the more radical NGOs did use this framing.

Limited awareness of other actions

Interviewees made very few suggestions when asked what climate actions they had considered taking themselves but had not, for whatever reasons. All the actions suggested were individual civic engagement actions; ten people could not think of any at all, including the majority of the non-informed group. A number of people, mainly in the informed group, suggested they could take further personal transport actions. Three people said they should reduce their car use but had/could not for a variety of reasons: work commitments, health reasons stopping them from cycling, and a dislike of buses; three others mentioned (further) reducing flying. The other common civic engagement actions were rarely mentioned in this context. Only P4, who was particularly concerned about recycling/waste reduction said she could do more, 'I hold my hands up I am quite happy to take on some extra packing and whatever I suppose. But I try and responsibly dispose of what I have (...) however it is really expensive if you want to take in an eco-version and that kind of thing.' Some of the more doubtful about climate change took the opportunity to express some resentment about recycling, 'I don't want to sort out all this damn rubbish, but I do it (laughs)' (P5, Inf, D). Personal transport choices were the only type of common civic actions that were mentioned frequently as an action people had chosen not to take. Not taking them was seen as more acceptable because they were seen as the subject of legitimate individual choice and/or subject to wider structural constraints outside of individual control to a greater extent than any of the other common civic actions.

Installing domestic renewables was by far the most common action not taken. Solar panels were the prototypical form of renewables in this context, mentioned by all ten people who talked about renewables; other forms including wind and ground source heating were suggested less frequently. The main reason given for not acting was cost, 'so that (solar) sounded like it might be a good thing to do (…) but I can't see me doing it because we haven't got the disposable income to cover anything ourselves' (P6, Inf, AM). Perceptions of high costs put some people off fully investigating, 'if there was a cost in option for wind or solar or whatever that could cost in within about five years or something then I would definitely consider those things. But I guess I have never really looked into it, I think my gut instinct is that, or at the level I have looked into it, is that it would take longer than that' (P14, Inf, AM). Solar panels were also perceived as something that was only accessible to wealthier, home owning people, 'maybe like the solar panels on the house, (…) that's expensive to put that in, maybe people can't afford to get more insulation' (P20, Non-inf, MC).

One person had rejected them for aesthetic reasons, 'we were going to have the roof panels, the solar panels, but my mother decided that she didn't like them, that they looked ugly on the house, so we didn't' (P22, Non-inf, MC). The more doubtful about climate change expressed scepticism about solar in the UK climate, 'not solar panels, because I don't think they would work all that well in this country' (P5, Inf, D). Only one person mentioned any alternative renewables-related actions that would potentially avoid these common financial barriers, 'I've looked into having a green energy supplier and I didn't, sorry yes on one occasion I did do it because they, they draw, they drew their supply from wind turbines up in Scotland. And the price was good enough for me to go for it' (P7, Inf, AM). Smart meters were quite prominent in the media sample and a number of people had been offered them by their power supplier, but had not been interested enough to do anything about it. (Three people who, after seeing them in the repertoire sheets, said they had taken smart meters either said they couldn't understand the readings or they had no impact on their energy use).

Summary

The same five types of individual civic engagement actions that dominated the media sample were also dominant in the interviews. The two most common core types of individual civic actions were personal transport and recycling/waste reduction; while there was evidence of *small actions* rhetoric being used to explain these actions, most commonly they were treated as common sense green domesticity. Three other types of action: regular and one-off energy/water conservation, and eco-shopping/eating, were common amongst the informed group. A familiar set of both one-off and regular energy conservation actions, also found in the media sample, were again largely treated as being unexceptional normal behaviour, but eco-shopping and eating actions were framed as requiring more deliberate effort and ethical commitment.

The only widely considered additional climate action was installing domestic solar power; however, despite being perceived as increasingly common and as a good thing, the significant cost barriers mean that it was not perceived as a normal behaviour. This enthusiasm for renewable energy has also not translated into a high level of awareness of other potential actions that do not involve such substantial cost barriers. If doubts about efficacy were the main reason for people not taking political actions then you might have expected concerns about this to be mentioned in this context; that they were not, unless people were specifically prompted about them, supports the idea that climate action has been more comprehensively depoliticised. Overall, climate action appears to be associated with a set of largely uncontroversial and unremarkable civic actions that are familiar from the media, with the more engaged taking a wider range of actions including some more challenging and less familiar actions informed, at least in part, by a more active desire to reduce their environmental impact.

7.3 Public Policy but No Political Participation

Policy suggestions were far more common than suggestions for political actions, which were even rarer than table 7.2 suggests; half of these suggestions came from one entirely atypical answer:

> *'Umm, well petitions can be done, if you are then going to ask me how impactful they are, we'll deal with that later on, so petitions can be done. Protests, physical protests can be done, which we have seen in Cardiff, every now and again. Umm, again as I have mentioned contacting your local candidate, MP, if they have got some affiliation towards environmental issues that can be done. Contributing money, your own money, to funds that fight, perhaps some injustices that some of the big businesses are doing at the moment. Personal membership of some of these organisations you can do, you can chat to your colleagues and friends about it, to see whether they have some type of interest and maybe urge them (laugh) towards a certain line of action maybe.'* (P7, Inf, AM)

This was an almost unique example of an interviewee talking about climate action from the perspective of active political citizenship. The political actions people had actually taken were very limited. A couple of people mentioned voting Green, three had signed online petitions, and two people were members of environmental organisations, but at a low level of involvement, 'I support Greenpeace and I donate to them, for them to sort of, make a protest on my behalf' (P16, Inf, AM). Two people mentioned political participation as something other people could do, 'I suppose you could join the Green Party or something, or you could you know, join a particular party and get involved in the green policies that they have got' (P18, Inf, D). It appears that across the sample climate change did not register as an issue for political participation, despite widespread recognition of the need for government action.

Policy Suggestions

The 'science is clear' group made the most policy suggestions, driving the popularity of the three most common proposals: choice of energy sources, international climate negotiations and transport infrastructure (table 7.4). In contrast to the media sample where energy choices were framed in terms of technological progress, interviewees placed their emphasis on overall energy use, 'I think starting off at source, in terms of creating, well I don't want to be banal and say we could all use less energy, because I think the world is operating on a very high level of energy use' (P14, Inf, AM); often linking this to the wider economic system, 'that (the most important action) is CO_2 umm, production in power stations and so on, CO_2 footprint. I guess that is the one major thing, is well changing consumption' (P12, Inf, HC).

Table 7.4 Policy Suggestions

Policy Actions	**Public- Top of head**
Choice of Energy Sources	30%
International Climate Negotiations	26%
Transport Infrastructure	22%
Regulation of Industrial Emissions	17%
Challenge Corporate Power	13%
Transform Food Production	13%
Regulate Corporate Waste	9%
Challenge Consumerism	9%
Break Political Inertia	4%
Reforestation	4%
Transform Building Stock	4%
Carbon Pricing	4%

International climate negotiations were mentioned by six people, all in the informed group, who were generally pessimistic about the likelihood of success, 'to get agreement on a worldwide basis is quite difficult (…) you can put me in the pessimist camp, I don't think we will do it' (P15, Inf, HC). There were two reasons for this pessimism: firstly, the conflict with the needs of developing countries and our own historical responsibility for emissions, 'there are still I mean hundreds of millions living in poverty in China, they obviously want to lift the standard of living,

and they want to give them I guess something similar to what we have in the developed countries' (P12, Inf, HC). The media framing of China as a climate villain and/or excuse for inaction (Wu 2009, p.167) was almost entirely absent; interviewees were more likely to highlight historical responsibility for emissions. P6 (Inf, AM) drawing on his own involvement in food charities said, 'when colonialism was quite rampant, there was sort of a mood where that in order for the colonists to make money they forced the indigenous population to adopt policies that with things like agriculture that were detrimental to helping keep things healthy and balanced (…) I think we have got a lot, a lot to answer for.' Secondly, pessimism stemmed from the influence of money and particularly fossil fuel interests, 'there's government involved, there is big business involved, they all have their own little umm agendas, they want to protect their little agenda' (P7, Inf, AM).

Transport policy suggestions were closely linked with personal transport actions, 'better public transport you could start with that, umm, yeah, if everyone used buses a bit more or they put more, for instance where we live in Penrhos there is absolutely no public transport, you have to use the car or walk' (P1, Inf, AM). The wider context of how society is planned was also frequently mentioned, 'along came Mr Beeching axed loads of railway lines, forcing the distribution to be by road so there was more big lorries on the road. Because the government encouraged more out of town shopping areas, and there aren't good buses to the shopping areas, more people are needing to buy cars' (P6, Inf, AM). Many of the policy suggestions related to concerns about the economic system and consumerism, 'how to supply the food chain and erm, umm you know consumption of meat (…) our need as a society to eat peaches from Chile in the winter, and just the supply chain around the world is wasteful, totally wasteful' (P12, Inf, HC).

The one policy suggestion more common among the non-informed group was the regulation of factory emissions, which perhaps reflected their understanding of climate change in terms of more generic pollution problems, 'the first things that come to mind are factories actually you know, being efficient and umm, yeah and treating their waste' (P2, Inf, AM). It is interesting, however, that no one argued explicitly for the regulation of carbon emissions from specific factories or power

stations, a direct policy that is currently politically unacceptable and rarely mentioned in mainstream climate discourse.

Government responsibility

A clear majority located the primary responsibility for action on climate change with government. Being asked this question caused many to question the framing of individual responsibility they had adopted in previous answers, 'ultimately I suppose it all, I was going to say it all falls down to individual personality, but the amount of rubbish that one person makes isn't going to make a tinkers damn of difference anyway, globally' (P5, Inf, D). However, personal responsibility was not rejected; instead, the government was seen as having a role in helping people fulfil their responsibilities in two ways. Firstly, acting to help people, removing barriers to action and helping people to do the right thing, 'well it's individuals and politicians, we need an environment in which individuals can be encouraged and supported in trying to do what is necessary. Each of us in this country has to reduce our consumption, our production of CO_2. But we are not being helped to do that' (P15, Inf, HC). Secondly, government was also seen as having a leadership role, setting a good example and providing a strong message about the need for action, 'if it starts at sort of the government and then it filters out, then that would be helpful (…) I don't think the tone is umm, urgent enough at the moment. I think it should be more urgent, I think they should be on our case a lot more' (P1, Inf, AM).

Striking the right balance between the responsibility of the government and the individual was something some people wrestled with, 'it would be easiest if you came from your own heart and started making changes by yourself, then it's pointless to have any regulations from above, but maybe some people need to be regulated. I think they need to be (sighs) I don't know' (P13, Inf, HC). Public policy was also seen as an important part of government's leadership role, 'I think there is a lot of education to be done that people could help with, but that's only going to go so far I think without major policy changes at a leadership level' (P14, Inf, AM). The non-informed group were less likely to make links between government and individual responsibility, giving shorter answers reflecting their lack of familiarity

with public policy options, 'someone in government (laughs) I don't know who (…) I feel like he is the only one who could make a real difference or change to policy' (P9, Non-inf, MC). Interestingly though, no one mentioned the potential leadership role of the UK government in international climate negotiations, despite the importance some attached to negotiations in other contexts. Only a few people mentioned the possibility of political participation pressuring government to take more responsibility, reflecting that climate is a low priority compared to other public issues, 'somebody else will have to do it because I am too bogged down with everything else I am protesting about' (P17, Inf, HC). The responsibility of business was only mentioned by a couple of people, 'for taking action, industry, corporations, which is why I think, you know, there is very little chance of it happening in the immediate, because that's where the majority of pollution that is causing climate change comes from' (P8, Inf, HC).

Summary

Significant responsibility for action on climate change was located as lying with government. Individual responsibility for taking action was still recognised as being important, but this question caused people to consider the limits to what individual action could achieve. Government was seen as having an important role to play in increasing the efficacy of individual action both by removing barriers to, and providing incentives for, action; and by providing leadership through an overall vision for action and setting a positive example in their own actions. The informed group, as well as taking a wider range of civic actions, were also more likely to acknowledge the potential limitations of these actions and suggest public policy options as well. Despite some quite widespread policy ideas in the informed group, which differed from common media framings in significant ways and shared an underlying concern about the current consumerist economic system, suggestions for political actions to bring these policies about were rare and involved minimal levels of commitment. Overall, this paints a slightly contradictory picture, in which the action discourse has largely succeeded in framing climate change as an issue for individual civic engagement, despite widespread placement of responsibility at the governmental level and a significant number of more engaged people being

concerned about the limitations of the specific actions proposed, in particular due to the wider economic system.

7.4 Personal Responsibility for Taking Civic Actions

I analysed the way interviewees talked about their own personal responsibility to take climate actions. Six different framings were identified, and are explored in descending order of strength of personal responsibility (table 7.5) in the rest of this section. Three of these framings correspond to the rationales for actions in the three main individual resolve repertoires (*radical action*, *green lifestyle* and *small actions*). This analysis was based solely on correspondence with how people framed their own personal climate actions, not on their use of the repertoires as a whole; they often used few, if any, of the many other features of these repertoires. The other three framings were developed from the interviews; the final two framings (efficacy doubts and non-climate actions) do not fit within the logic of the resolve consensus, as both express significant levels of doubt about the efficacy and/or necessity of climate action. The more convinced people were that climate change is anthropogenic, the more likely they were to use stronger framings of personal responsibility (figure 7.1).

Table 7.5 Framings of Personal Responsibility for Civic Actions

Framing	Actions	Rationale for action
Radical Action	Transformative actions towards a different, less materialistic lifestyle and a wider societal change	Ethical responsibility to act in line with their vision for wider societal changes
Ethical Responsibility	Based on ethical responsibility, but not conceptualised as part of a larger transformation of either their own lifestyle or society	Ethical responsibility to act applied only to limited areas of personal interest to them, rather than being applied more widely according to larger vision
Green Lifestyle	Practical actions enhance their existing lifestyle and contribute to a greener future	Green ethic informs actions but is balanced with other legitimate concerns
Small Actions	Simple actions that tackle climate change and benefit	Receiving information about actions, no need for ethical

Framing	Actions	Rationale for action
	people individually with no wider impact on own lifestyle	deliberation as actions are also in own personal interest
Efficacy Doubts	Practical actions but have significant doubts about their efficacy as contributions to greener future	Acceptance of green ethic, but often undermined by efficacy doubts
Non-climate action	Take actions for non-climate related reasons	Non-climate related, may be aware of climate benefits, but they are not a factor in their decision making

Figure 7.1 Framings of Personal Responsibility for Civic Actions
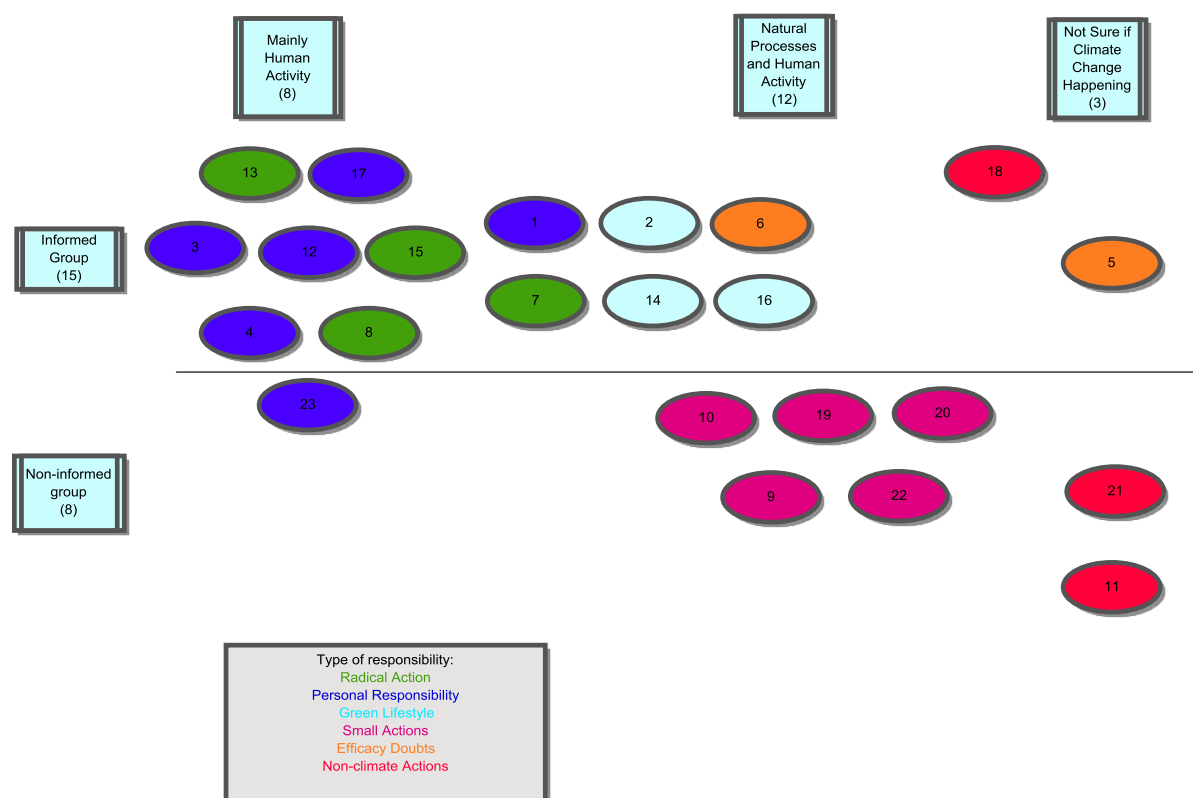
Four people described their actions as part of an ongoing ethical responsibility informed by a transformative vision of the type that underpins *radical action*, 'try and have as little an impact, because basically I think I understand the consequences of it, and basically it would just give me a bad conscience' (P15, Inf, HC). This ethical responsibility was constructed rhetorically as overriding economic self-interest, 'I don't think the (green) fund is going to perform that well to be honest with you, but my money is propping up, supporting these companies that are hopefully trying to make the world a better place kind of thing' (P7, Inf, AM).

This commitment to ethical living is not solely, or even necessarily primarily, about climate impacts, 'I would rather not, you know, rather not be on that kind of consumer wheel, that's if I am completely honest more about the way that those goods are produced than about climate change' (P8, Inf, HC). They were the most likely to talk with enthusiasm about both actions they have taken, and those they hope to take in the future, 'I would love to, the idea would be to, to have sustainable little house, (under breath) one of the future have not done yet, umm and erm for example like in Japan they have a beautiful system where when you wash your hands in the sink, all the water goes into the toilet tank' (P13, Inf, HC).

Six others used this language of ethical responsibility, 'you know, you have got to be responsible for your actions, and try and support people in, yeah and try and help the planet if you can from there on' (P1, Inf, AM). As with *radical action* this ethical responsibility rhetorically overrides economic self-interest, but it is not informed by a holistic vision. Lacking this vision four of this group took either a variety of largely unconnected actions – 'I try to make sure that our consumption is economical (lists some examples) but I, I can't say that I am very focused or very methodical about it' (P3, Inf, HC) – or limited themselves to a narrow range of actions they were particularly concerned about. The other two did have a wider ethical vision, but did not see civic actions as contributing to realising it, 'I probably don't do any activism (…) well recycling or whatever, yes' (P17, Inf, HC).

Three people reflected the *green lifestyle* repertoire, focusing more on actions in relation to their own lifestyle. In this framing, climate concerns are valid but not an ethical imperative, so it is legitimate, to balance the green ethic with other concerns, 'yes, there is always the personal versus the community aren't there you know. Personally I haven't installed solar panels but I have installed insulation. And that's partly personal because it benefits me, but it does also benefit the planet' (P2, Inf, AM). This differs from the familiar dual benefits rhetoric of *small actions*, as *green lifestyle* frames action as involving balancing self-interest and ethics, while *small actions* are framed as common sense and unproblematically beneficial, with no conflict between these factors.

Interestingly, there was an exact overlap between the five people in the equal and uncertain mix groups and the *small actions* rationale. Like *small actions*, the equal and uncertain mix positions, do not reach a decision about the balance between the human and the environment. This lack of deliberation means action in this framing is a result of receiving information about specific actions that someone else has determined meets these dual ethical and economic standards. As a result this group was uncertain about what the impact of their actions was and what more they could do, 'as a whole and other things I wouldn't know if I am doing anything right or not, because my information isn't very good on that to be honest' (P19, Non-inf, MC).

The efficacy doubts framing was a doubtful version of *green lifestyle*. They shared the framing of climate as part of an ethical lifestyle, 'we have to be more careful about what we are chucking out, and what we are purchasing in the first place' (P5, Inf, D). However, their commitment was limited by doubts about the extent to which individuals could make a difference – 'how much effect we have in the bigger scheme of things you can't really tell. Unless you monitored absolutely every household 24 hours a day' (P6, Inf, AM) – and the efficacy of various actions, 'they keep changing their minds which is the best petrol to use, or not as the case may be (…) but now they reckon that diesel is perhaps not a good idea anymore (chuckles) so you don't know where you are' (P5, Inf, D).

Finally, the three people in the non-climate actions group were aware of the climate rationale for many of the common civic actions, but said they took them for other reasons, 'I really like, like the recycling, the thought, if that is happening properly, that is a really good thing. Because we all, I am shocked when I hear that people throw £200 of food away a month you know' (P11, Non-inf, D). They expressed the greatest level of scepticism about their efficacy as climate actions, 'I know it (saving electricity and recycling) is going to help the environment, or it's meant to help the environment, not that I have seen any proof of it, but it's meant to help the environment' (P21, Non-inf, D). Others occasionally questioned the efficacy of specific actions, but on the basis it was possible to choose the best option among various actions, 'I am open to anything really, but what would stop

me would be I would have to look into it (solar energy) a lot, I would have to research it to see if it actually worked, because there would be nothing worse than putting it up and then the whole thing goes wrong (laughs)' (P1, Inf, AM). In contrast, the final two groups' concerns about efficacy were not just about specific actions, but more fundamental doubts about the claims made for the efficacy of climate actions as a whole in public discourse, placing them outside of the action discourse's resolve consensus.

Summary

People who were more certain climate change is anthropogenic expressed a greater level of personal responsibility for taking civic actions, which makes sense given the increased responsibility they place on human activity for climate change. However, it could also be argued that their greater awareness of policy options might reduce the level of importance they attached to personal responsibility for civic actions. That this was not the case suggests that these more frequent policy suggestions are mainly the result of greater awareness of policy options, rather than placing responsibility for action at a different level. The most doubtful about human causation of climate change also expressed the least responsibility to act, expressing doubts about the efficacy, and in some cases necessity, of climate actions that placed them outside the resolve consensus. The correlation between having the least definite opinions about the causes of climate change and adopting the *small actions* framing of responsibility highlights the *small actions* repertoire's potential weakness in encouraging public deliberation. By providing a list of actions, rather than an underlying rationale for action, it avoids any deliberation about climate change as a public issue, making it a weak driver for further action.

7.5 Sources of Information about Climate Actions

Two main sources of information about climate actions were identified by interviewees; (i) specialist sources, largely non-mainstream and online, and (ii) advertising, often from energy companies and related advice programmes, broadly

reflecting the action discourse found in the media sample, and which was perceived as being widely available. Specialist sources were largely only mentioned by the informed group, who had a positive perception of both the quality and quantity of information available, 'there is quite a few out there, which I was quite surprised at actually, I was really surprised about what was out there, it was really good' (P7 – talking about his search for information about green investments). This type of information was expected to mainly come from alternative sources, rather than mainstream media organisations, 'if you are signed up to those kind of things then you get them, but I wouldn't say they are widely out there' (P14, Inf, AM). Activist organisations were the most frequently mentioned source of this type and were widely treated as credible. Most of the informed group were aware of these sources, but admitted they rarely actively looked at them, 'I think there is if you want to look for it. And that's on the internet, but there's people like me who don't (laughs) actually do that' (P1, Inf, AM). More often they came across ideas for actions in media they were already consuming, without seeking out additional information, 'I haven't looked for something specifically, but things that I have read in passing have made me think about what I could do' (P2, Inf, AM). So, opportunistic gathering of media content about actions as part of wider public connection was again, as with climate science, more important than direct search. In the case of climate actions, however, public connection appears to play a less important role overall, as marketing messages largely do not require public connection; both the informed and non-informed groups were very familiar with this second source of information.

A commonly mentioned form of advertising was direct mail, often from the energy sector, energy companies and those selling solar panels and insulation. Although there was widespread awareness of these messages and the credibility of their energy saving information was widely accepted, 'I think loads of people know what they can do (…) it's just everywhere really how people can save' (P20, Non-inf, MC), a number of people said they ignored them, 'I recycle them before I even look at them to be honest' (P8, Inf, HC). The ubiquity of these messages was more important to frequent negative perceptions of them than doubts about the

communicators' credibility, 'oh I have loads, always have too much free (…) I mean if you start bombarding people with it, they get ticked off don't they' (P2, Inf, AM). In addition to overexposure, the emphasis on financial incentives was also seen as problematic. Often the specific incentives were not relevant to them personally, 'I think when I live by myself and say a leaflet comes through the door, I would perhaps pick it up and have a read because they could be offering like a cheaper alternative' (P21, Non-inf, D). Also there were more general objections to this framing, 'there is quite a bit, but I do think it is twisted round though so it's like money. Rather than about the environment it is more about money' (P22, Non-inf, MC). The non-informed group were often particularly negative about this, as they felt that the communicators failed to recognise these actions were out of their reach financially (particularly if they were not home owners), and then insulted them by instead assuming that the reason they were not acting was they did not care about the environment and were only motivated by money. The response to these advertising messages was mixed at best; the validity of the actions was recognised, but overall the nature of the messaging, particularly their quantity and the emphasis on a narrow range of financial incentives, meant it was often seen negatively by all interviewees, not just those who were more certain about climate change.

Using the internet to access content from alternative sources about climate actions was quite different to how people talked about their use of the internet as a news source more generally. For general news the internet was often seen as a more convenient way to access the same content from the same providers, 'I wouldn't think to walk out of the door and buy a newspaper at all, because like I do have it as an app on my phone for the news' (P9, Non-inf, MC). Those who had not made this switch also talked about this decision in terms of the medium rather than the message, 'I don't tend to look at news online, I am in favour of paper still, you know older generation' (P2, Inf, AM). For some people the internet provided a more open starting point for pursuing their news connection, 'I like the posts from other people on Facebook that could be useful or something (…) it gives you the more, because umm everybody is interested in something else, so it gives you the bigger

picture than BBC 3 news with all the roll (laughs)' (P13, Inf, HC). However, even in these cases, the large majority of the content interviewees were accessing still came from the same mainstream legacy news providers. Two alternative online sources of content were being accessed by a minority of interviewees, largely in the informed group. Firstly, foreign news organisations were being accessed either for an alternative perspective on major news stories or to follow the news in a country that they have a particular interest in. Secondly, campaigning organisations, both traditional (e.g. Friends of the Earth) and digital native (e.g. Avaaz), were a source of news about issues not covered in the mainstream media. By far the most common type of content people mentioned accessing from these alternative sources was environmental issues (prior to climate change being revealed as the interview topic), 'I think I must of triggered some sort of rule in Facebook where I do get sort of umm, posts about issues again about the environmental' (P16, Inf, AM).

The overall feeling was that information about climate actions was insufficient and failed to reflect the urgency of the problem, 'I think we all know it is going on, but I think if you asked umm, the majority of people they wouldn't understand what they could do to prevent it then' (P19, Non-inf, MC). Five people were satisfied with the overall level, including all three who had also been satisfied with the news coverage, 'I think there is enough to get us starting thinking about things yes yes' (P2, Inf, AM). The most doubtful group mainly paid attention to local government information about recycling, 'so I do read it and sort of in my area, I do my bit with it, but on a wider scale I haven't paid a lot of attention' (P11, Non-inf, D). Larger scale action messaging was seen as uncritically accepting climate change – 'you could say that there is lots of information but the bulk of it, well inevitably is pushing, there is no question mark' (P18, Inf, D) – but overall as an irrelevance that is easily ignored, rather than a significant annoyance bombarding them with actions they do not want to take.

Summary

Two main sources of information about climate actions were identified: firstly, information from non-mainstream communicators largely via the internet. There was perceived to be a significant amount of good quality information of this type available, but only the informed group were likely to be aware of it. This use of the internet as a source of alternative content was in contrast to more general internet news consumption which was mostly motivated by convenience. The frequency with which the minority who did use the internet to access alternative content mentioned environmental issues, suggests that the environment may be an area where mainstream news sources have a particular weakness in meeting public interest. In contrast there was widespread awareness of the second information source, advertising messages framed through the action discourse, as these do not require public connection; they were often for energy related products and advice, coming largely, but not exclusively, from businesses. Perceptions of these messages were mixed, but overall negative, not so much because of concerns about the accuracy of their content or who the messengers are, but due to their volume and narrow, often financial, focus, leading to a significant proportion of people ignoring these messages. A majority were concerned that the overall effect was communications about climate actions neither reflected the urgency of the problem, nor resulted in people gaining a complete understanding of what could be done about it. However, a substantial minority did not share these concerns, either due to satisfaction with current levels of communication, or doubts about whether climate change is happening.

7.6 Political Participation

There was relatively little difference between the informed and non-informed groups' political participation both in terms of their involvement in political protests (table 7.6, question 3) and feeling they knew what to do about issues that are important to them (question 8). However, those in the informed group were generally confident that they knew, or could easily find out, how to get involved in

political issues, regardless of their current level of engagement. This reflected their greater familiarity with political issues (questions 2 and 6) and feeling they were relevant to their life (question 5); these differences were also reflected in their qualitative description of their political participation.

Table 7.6 Public Connection

Public Connection	Informed (15)	Non-informed (8)	Difference
1. Being involved in my neighbourhood is important to me	3.7	4.1	-0.4
2. I often talk with other people about political issues that are important to me	**4.0**	**2.9**	**1.1**
3. I don't get involved in political protests *	3.0	2.7	0.3
4. People who know me expect me to know what is going on in the world	3.8	3.4	0.4
5. Politics has little connection to my life*	3.6	2.9	0.7
6. I have a pretty good understanding of the issues facing our country	**3.9**	**2.7**	**1.2**
7. I feel that I can influence decisions in my area	3.3	2.7	0.6
8. Sometimes I feel strongly about an issue, but don't know what to do about it	3.2	3.1	0.1
9. I trust politicians to deal with the things that matter	2.1	2.9	-0.8

*Negatively worded items have been reverse coded so that a high value score indicates the same type of response on every item to aid comparison

P17 (Inf, HC) was the only person who gave a largely positive account of their own political participation; despite setbacks, involvement in political protest was an important part of her identity and social networks, 'when we did the million march against Iraq, what a lot of good that did, against starting the war in Iraq, my daughter came on her first one, that was with me, you cannot describe how thrilling that was for me.' The informed group were generally either continuing despite a high level of frustration, 'I feel that for some issues that an awful lot of pressure can change, but there are other issues that (…) whatever people say it will

go ahead, so I wouldn't say I was fatalist about it, but I know the limits (laughs), or at least I sense that there are limits' (P3, Inf, HC); or pragmatically restricted their participation, 'yeah I think if I, I wanted to get involved in some of those areas (important political issues) in some shape or form, then I think I know what I would have to do or where I would have to go to try and pursue that, but umm yeah I think I am also kind of, kind of boxing off what I will, or how far I will get involved in certain things' (P14, Inf, AM).

In contrast, those in the non-informed group were often unsure how to get involved in politics, 'I wouldn't know where to start, I wouldn't know who to talk to first, or, I would guess the library maybe, I don't know' (P22, Non-inf, MC). They viewed politics as something distant from their lives, 'it's just not who I am, not something I would do. Just let, there's too many people in the world that might not want it, do you know what I mean?' (P20, Non-inf, MC). P21 (Non-inf, D), the most disengaged person in the sample (the only person to strongly disagree with question 8) was more explicit about this disconnection, 'I disagree with it (hypothetical issue), but I don't think I have got enough passion to go forward and do something about, I just think oh someone else will do it, so I just think I am lazy. If I am honest (laughs) (…) I don't really know much about the world, I just kind of know what is in my little bubble and what is interesting me.' P23 (Non-inf, HC) was less happy with this disconnection, 'I think things do need to change, now I am paying attention, I don't know if it is because I'm older (…) I just think it (politics) is too big to even try and do something about it. Does that make sense? Like yeah I mean yeah, I wouldn't know what to do, start a petition? (laughs).' The non-informed group were more likely to feel they might be able to participate in a local political issue, due to the more manageable scale, despite also having lower perceptions of their potential efficacy in local issues than the informed group.

The informed group's greater orientation towards the political world was not driven by a more positive perception of the responsiveness of the political system; they were less likely to trust politicians to deal with the things that matter to them (question 9). It is important here to distinguish between trust in the personal honesty of politicians and trust in their responsiveness to public concerns. This

negative perception was not primarily about distrust of politicians' personal honesty, either as individuals or collectively; in fact the non-informed group were more likely to express this type of distrust, 'with politicians it's just, (…) they do seem tell a lot of lies don't they, so, I don't know (laughs) I don't seem to trust them (laughs)' (P22, Non-inf, MC). However, the non-informed group were also more likely to say they trusted politicians, 'so I am thinking if you are in charge of something and you are a politician then you should know what is going on and what the right thing to do is in that particular area' (P19, Non-inf, MC). This suggests they were less critical in their appraisal of politicians' trustworthiness and more prone to sweeping judgements in either direction.

The informed group's distrust related to politicians' lack of responsiveness to public concerns. The extent to which they blamed politicians own personal intentions, rather than the political system as a whole, for this disconnect varied quite substantially. Some were very negative about politicians, 'I think that (*The Thick of It*) is quite an accurate representation. You know there is a lot of egos, there is a lot of kind of infighting and I think that is certainly what national politics is about' (P8, Inf, HC). Others were more understanding, 'the vast majority of MPs go into it, and MSPs and AMs, go into it for umm genuine reasons (…) I do trust them, not necessarily to make the right decision, but I do trust that they have the interests of making the right decisions at heart' (P14, Inf, AM). The informed group were more likely to know who their own local MP was and have a positive view of them, 'Jenny (laughs), Jenny is mine, she is a Liberal, she is a good girl, I can't think of her surname. There is another politician with a similar name, put it down to my age, but she's good' (P17, Inf, HC). However, there was also scepticism about how effective, or even genuine, some of this local activity was, 'he (local MP Alun Cairns) is saying that he is doing his damndest to (keep the local Post Office open), he's a Conservative so he introduced the privatisation of the Post Office in the first place. Yeah I suspect the policies that have been introduced made it easier for this situation to happen' (P15, Inf, HC).

Summary

The similar scores for questions around political participation and efficacy at the national level (questions 3 and 8) of the informed and non-informed groups concealed some significant differences in the reasons for their answers. The informed group were far more confident that they knew, or could easily find out, how to participate in national politics. However, their much higher levels of political connection (question 5) were counterbalanced by much lower levels of trust that the national political system is dealing with issues that matter (question 9). The informed group felt their potential influence was low and were dissatisfied with the responsiveness of the political system to their concerns, resulting in efficacy scores similar to the non-informed group (question 8). As a result many of them had pragmatically reduced their level of political participation. However, later in the interview in the context of climate politics, this group did not describe this type of pragmatic disengagement; instead, political participation in climate change was either crowded out by participation in other issues, or far more commonly simply not brought up as an option at all. Similarly, there was little evidence of the non-informed group using less critical sweeping judgements about politicians' personal honesty to explain climate change, either in terms of trusting politicians must be dealing with it appropriately, or that they must be lying about it; reflecting their minimal levels of talk about climate politics.

7.7 Perceptions of Government

Westminster and local councils were the two levels of government all interviewees focused on; only P18 (Welsh Assembly) and P14 (Scottish Parliament), both supporters of nationalist parties, talked about devolved administrations, and only P13 talked about the European Union. The possibility of Brexit was not mentioned by any of the interviewees.

Westminster politics

Disillusionment with Westminster politics was common. The Westminster agenda was frequently seen as being out of touch with everyday life, 'I don't want to sound like I am being stereotypical but some of them (politicians) will not understand what it is like for a normal working job, and so that might tint their views of how to make a decision on what is best for the people and the public' (P9, Non-inf, MC). Instead, the Westminster agenda was seen as driven by the media – 'it's such a lot of party scoring, and I also think that there is an awful lot of pressure on politicians to be reported, rather than to get things done' (P3, Inf, HC) – and/or by money, 'it is an elective dictatorship really, and it's very difficult for people to influence erm politicians. Only those with power and money seem to be able to exert any influence whatsoever' (P15, Inf, HC). Some people took a more pragmatic view of this lack of responsiveness, 'you know there are certain issues that you know are too sensitive, or don't sufficiently appeal to the middle ground, that no party who will be in power is going to adopt it' (P18, Inf, D).

The style of Westminster politics was also seen as a substantial negative, 'it gets me really angry with, even if I agree with what they are saying, it's just the way in which they do it, and they use that to get to an answer, it just, it just sounds like a nightmare. And I don't want to be a part of it' (P9, Non-inf, MC). The media was perceived as playing an important negative role in both its style and substance, 'just the way they talk in public is, I just feel like is so false (…) his (Ed Miliband) body language, the way he was talking, it just seemed like it was so scripted, just everything, it was almost like someone was telling him what to say in his ear' (P23, Non-inf, HC).

There are some similarities between these negative perceptions of Westminster politics and perceptions of climate politics. In particular, the influence of the media, power and money in setting the political agenda, and keeping climate change off it, and the short termism encouraged by both electoral and 24 hour news cycles. However, there was much less evidence of criticism (or praise) of politicians, either individually or collectively, in relation to climate politics. This

perhaps reflects people's lack of knowledge of domestic climate policy and also suggests that currently many people simply do not attach any political responsibility for climate change to national politicians.

Local Democracy

People's experience of local democracy was very negative. Their participation was mainly in campaigns against cuts to valued services, and they were well aware the odds were stacked against them and it was likely to be a frustrating experience. There was a widespread perception that the range of options available was significantly narrowed prior to people's input into decision-making, 'the city plan, you know the consultation exercise, so I had a quick look at that, you know 'how would you like things to be cut?'' (P2, Inf, AM). Interviewees struggled to identify how they could even try to influence the tide of local service cuts, 'one recently has been the decision by Rhondda Cynon Taff to cut funding for music in schools, and that, and I am very sad to see, because you know I think music is fundamental to our lives, (…) I mean I don't really know quite what to do about (laughs) something like that' (P12, Inf, HC). People were generally pessimistic about the likely efficacy of campaigning, 'I think it is all about money, and I think they will close it (local library)' (P11, Non-inf, D). Financial factors were seen as overriding any democratic input from citizens, 'I don't think you have any influence at all, because I've written complaints recently, last week to the local council about cutbacks. I did get a reply, but the reply was really meaningless' (P5, Inf, D).

The closure of local libraries was emblematic of cuts to local services; no issue, local or national, was mentioned more frequently by people as one they were currently following. It was clear that people valued their local library, 'the library is the heart of our village and it's one of the things I, that enhances my life' (P11, Non-inf, D), and were often aware of, and involved in, well supported local campaigns to save them that extended well beyond regular library users. Both in this context and in other parts on the interview people explicitly talked about the role of the local library in public connection, both in facilitating public action and more broadly building social capital, 'they (local politicians) just think that libraries are just sitting

in the corner and having a chat (…) but there is so much more to it' (P5, Inf, D). The library was by far the most commonly identified example of this type of public space. The importance that interviewees attached to the library suggests that Newman (2007, p.905) is correct that, 'whereas the public library in the post-war years stood as an icon of public culture, however flawed, it now stands as a symbol of the impoverishment of the public domain.'

Similar dissatisfaction was also expressed by a number of people about their inability to influence local planning and development decisions.   Changes to infrastructure, which a number of people identified as important in relation to climate change, had already come up unprompted in the context of local democracy, 'we've got a supermarket in Porth but it's not really doing a lot for the town and it's having a negative effect on the main shopping street (…) (from) the local politician point of view, where the well, some of the decisions they make are ridiculous' (P6, Inf, AM). In particular, this included the failure to plan and provide the services required by development (education, leisure, transport etcetera) or to protect local green spaces, which was more common than outright opposition to new development. Again this was seen as driven by financial considerations, 'councillors want the money in their pockets and that's that. That's the way I look at politics (laughs)', stated P4 on the sale of local green space for housing. Similarly the planning system was seen as unresponsive to citizens' concerns, 'you can fight planning laws, but they, people (Tesco in this case) apply for planning again and again and again and again (…) (laughs) eventually you just run out of energy' (P2, Inf, AM). Even the minority of people who had success had similar experiences, 'we have been trying to save the, trying to save the reservoir (from being filled in for housing) for years and years, and we have and it's all down to people who worked much harder than we did' (P17, Inf, HC).

Local democracy was not seen as a realistic route for pursuing positive change in the current context, 'they need to make it a no car street, that would be fabulous yeah (…) it was a bit too radical to put that proposal to the street (…) politics is the art of the possible isn't it you know, and there are difficult decisions to be made' (P2, Inf, AM) on lobbying for speed reductions. Even when positive outcomes did

occur, the process involved remained mysterious, 'so I felt as if there was, we needed something to get a bit of funding in and maybe get some better play equipment (…) I got nothing further, but then a few years later they (the local council) did end up putting a multi-use games area in, and I thought typical. *Do you know why it happened in the end?* No' (P19, Non-inf, MC). The minority of people who knew who their local councillor(s) was generally had a positive view of them, although this was perhaps not surprising as it was usually somebody they had a pre-existing personal relationship with, 'I do go along to local councillor meetings, umm open mornings and so on, in fact we've got a Plaid parish councillor in our road who I chat with quite regularly' (P3, Inf, HC). A few people offered more systemic critiques of the hollowing out of local democracy, 'I don't have the feeling that the government is doing anything for the people, they give all these important responsibilities to charities, they don't fund them, they fund corporations' (P13, Inf, HC).

Notwithstanding these concerns, the informed group felt more able to influence decisions in their local area, reflecting a greater level of engagement with local democracy, 'I don't think that my efforts changed anything, because I think that the wheels of change were going to occur anyway, but it felt nice to be able to, to voice my opinion about it (expansion of local school)' (P7, Inf, AM). Some mentioned the impact that differences in economic and social capital made to where cuts were made, 'being a middle class area, people who are organised they have the resource to respond, they go to council meetings etcetera' (P8, Inf, HC). The non-informed group despite the greater importance they placed on involvement in their local neighbourhood (question 1), were less likely to feel able to participate in local democracy (question 7), due to a perception they would not be listened to and/or uncertainty about how to get involved; 'a lot of people are worried about like street lights going off, and the CCTV cameras and things (…) I think there has been a lot of campaigns on Facebook and like in the town centre (…) but I don't think anyone knows where to go, where to, who do we talk to, like do we talk to the police or do we talk to a councillor or what?' (P22, Non-inf, MC).

Summary

The interviews found a perception of substantial disconnect between the public issues interviewees felt were important and the political system. Two common experiences were central in driving this perception: firstly, at the Westminster level, disillusionment with the practices and agendas of government; and secondly, at the local council level, service cuts and a development agenda that people opposed but felt unable to influence. Doubts about the ability of both the political and media systems to respond to climate change because of the disconnection caused by the long term nature of the problem and the challenge it poses to established financial interests were reflected in concerns about Westminster politics as a whole. There was a strong feeling that the range of options in local democracy was significantly narrowed for financial reasons prior to any public participation, which was overwhelmingly defensive. That local libraries were seen as emblematic of service cuts suggests that people's concerns about cuts extend beyond the personal impact on them to the wider impacts on the local public sphere. Several people linked local development decisions to environmental concerns, although not climate change specifically, but these environmental issues were seen as particularly unlikely to be taken into consideration under the current system. Those in the informed group perceived, often from past experience, that influencing the local democratic process was likely to be an uphill and time-consuming struggle. The non-informed group were far less likely to feel they knew how to go about trying to engage with this process, although they attached greater importance to being involved in their local area.

7.8 High Levels of Collective Civic Engagement Driven by Public Connection

A majority of people were currently, or had been recently, taking part in public life through collective civic engagement actions, such as volunteering and participating in community groups. A substantial majority had seen benefits both in making a contribution to public issues and in their own personal experiences of participating. Some people also suffered real disappointments, but these had not generated the

systemic concerns about disconnect and powerlessness evident in some of the negative experiences of political participation. It is notable that this type of collective civic engagement was almost entirely absent from peoples' descriptions of climate actions.

Five people (all in the informed group) participated on an ongoing basis in collective civic actions oriented towards specific public issues of interest to them, 'generally issues around, I think social justice comes up a lot, things to do with, you know, fairness in society generally. I am quite interested in, at the moment I am quite interested in prison reform, or you know the problems with what's going on in the criminal justice system' (P14, Inf, AM). This activity overlapped with their political participation; all five had recently been involved in lobbying and/or protesting about these issues, 'well yeah, writing, emailing people, being yours disgustedly Oxford Court, umm, yes just things like that' (P17, Inf, HC). Their experiences were largely positive, although several of them mentioned that time pressures and/or changing life circumstances had forced them to give up volunteering activities that they enjoyed. Some people felt quite strongly about this, 'now I am working so, you kind of lose touch (laughs). And that's another issue see (…) the full-time working week (laughs) really doesn't give you any time to, erm, look into other areas of life (…) it's so easy to fall in to the pattern that you just lose interest, which what I don't, like, it's so blunting that people can have dinner go to news, there is never anything nice on news you know' (P13, Inf, HC). These concerns about work/life balance were most often expressed by those in the scale of consumption group, reflecting a links they drew between climate concerns and wider social change. P7 (Inf, AM) had been involved in trying to overcome some of these barriers by setting up a micro-volunteering website, 'you can do it whenever you want, however dressed you want, wherever you want as well. So that's actually changing the way that people can ahh, take action. And as well it's great just to see the ripple effect that it's having, it's amazing.'

Three other people (two of whom were in the informed group) focused their public action on a multi-year commitment to a specific organisation that tackled a public issue of interest to them, rather than the wider political world, 'running what we

call CAP (Christians Against Poverty) job clubs, which are giving people the skill and support that they need to get back into work. So it's very much out there touching the community' (P6, Inf, AM). For all three, significant dissatisfaction with politics had played a role in informing this focus on a specific organisation, 'I became disillusioned yes, I used to be active when I was younger, the Iraq war galvanised me again to, to erm try and influence what was going on, but even with the mass of public opinion and the clear divisions within society it, a lot of people like me thought we can't influence what is going on' (P15, Inf, HC). Involvement in these organisations had given them a lot of satisfaction and provided strong supporting context for public action, 'very good, it's really, sort of, it (Soroptomists) sort of gives you a platform to campaign, where it's hard to do on your own, you know, in a big group of women' (P11, Non-inf, D). Although P15 (Inf, HC) had recently ended his involvement as a warden at the local wildlife area, 'after 20 years of doing it, they (Wildlife Trust) suddenly started stopping communicating with me (…) umm so it was really some sadness, that I decided I, it was too difficult to continue working with them.'

A further eight people (four from both the informed and non-informed group) were currently or had recently taken part in collective civic engagement actions, but with less orientation towards political elements of public issues. They were regular participants in group activities – 'I foster kittens for the RSPCA and I get involved with Cardiff Dogs Home (…) I take the dogs out walking, we've done some fund raising events umm, so basically, and they have forums which you kind of put a bit on' (P4, Inf, HC) – and fundraising, 'I have raised about a thousand pounds with organising bag packing with people that I know. For Noah's Ark children's hospital, that was something that, who doesn't feel strongly about helping kids out and that' (P9, Non-inf, MC). They also took part in local civic life, attending meetings of local residents groups or neighbourhood watch and supporting their activities. Again, overall they had largely positive experiences, and felt their involvement had been worthwhile. Any political participation, if and when it occurred, was typically on a one-off basis in response to a specific event, 'Tesco taking over a disused pub, which didn't need planning permission and it was in a row of shops (…) and I went

along to a public meeting which included a Tesco representative who put her side of the case, and I've gone along to similar meetings' (P3, Inf, HC). They expressed much less political disillusionment than the previous two groups and were unlikely to frame action as being part of an ongoing commitment to addressing a particular public issue, 'I tend to be left rather than right, but I am not a very activist sort of person' (P3, Inf, HC). Many people in the more politically engaged groups also took part in these types of local activities, although a minority said that they paid little attention to them because they found them slightly trivial and/or boring, 'I don't get to heavily involved in local umm issues, you know like very local issues like community council or the like (…) I sometimes wonder whether I ought to, but I think I would find it a little bit boring' (P14, Inf, AM).

The seven people (four in the non-informed group) not currently or recently involved in collective civic engagement still had some orientation towards public life, 'there is always the issue that might attract my attention is development, because I live in a semi-rural area, so that, I will always look at something like that comes up' (P16, Inf, AM). They all had some previous experience of this type of collective activity, and some were still taking individual actions, 'I might have occasionally sent off one of these postcards that you can, that you are encouraged to send, but I am not a regular correspondent with my MP, unless there is a particular issue' (P18, Inf, D). Their reasons for not developing this orientation in to more active engagement were a mix of tolerance of the current situation – 'you know so it's sort of erm, not driven by any need for radical change, because I am comfortable, things are fineish as they are' (P16, Inf, AM) – and more active disillusionment, combined with personal circumstances limiting their ability to participate, 'those days are passed (marching at Greenham Common), I've got other issues in my family that I need to concentrate on so, you know, it's gone by the by' (P2, Inf, AM). Some were quite actively involved in various elements of local life, but this did not extend to paying attention to public issues in this context, 'it's quite a small town, so we do all talk and you know, do stuff, like organise street parties and things like that. But then, that's about the extent that it goes really' (P22, Non-inf, MC).

These common forms of collective civic engagement actions are largely absent from public discourse about climate change, as is the language of collective civic purpose that people used to describe them, 'then you can get involved in the society, (…) you know, there's always (laugh) there is always work to be done you know' (P13, Inf, HC). Even the personal benefits of these types of actions were more altruistic, 'you just think gosh that's amazing to be able to impact something on the other side of the world, when it's only an hour a week or a couple of hours a week, is great so it feels good' (P14, Inf, AM). In contrast, although climate change was often framed as affecting everyone, civic actions on climate change (which were overwhelmingly individual actions) were typically framed in terms of personal benefits and/or individual contributions, 'if you did something every week say, or every day umm, then that's going to help the whole thing I think' (P1, Inf, AM). This reflects the *small actions* framing in the media sample; some examples of more collective framing of actions can be found in other repertoires, particularly *radical action*, but these were unfamiliar to most people and rarely used to describe their own actions.

An important element in public connection that can be overlooked is the role of work. Some interviewees' perceptions of the negative role work can play in reducing people's time and energy for taking part in other parts of public life have already been touched on. However, work also plays an important part in public connection; the public issues people were most interested in were often closely related to their current or former jobs. From social care, to technology, to education, to the arts, people were motivated to follow these issues and take public action, both in and out of work. This is potentially relevant for climate change with increasing recognition of the importance of green issues in the workplace. There was some limited evidence of this; P18 works for a power company and followed the issue quite closely, without becoming active himself, 'I do get daily emails from a group called Carbon Brief and look at the other, Global Warming Policy Foundation (…) you could say it's an anti-issue in that, I react against, I react against green campaigners saying that you know we shouldn't have fracking, and we should rely totally on renewable energy, but I am not actively doing anything about it, it's

just my internal thought you know.' P10 as an architecture student had entered a sustainable design competition, although again this had not translated into public action outside of this context.

Summary

Most interviewees were currently, or had recently, been involved in collective civic engagement, having largely positive experiences of action as both personally rewarding and generating a wider social impact. Those with a stronger public connection were more likely to be involved in both political and civic actions, informed by ongoing interest in particular public issues. However, they had often pragmatically limited their political involvement to varying extents in response to past experiences or changing circumstances. Those with a weaker public connection tended to be more reactive to particular events in their actions, and concentrate their involvement on the type of charity and local civic actions that were common across the sample. In contrast, this type of collective civic purpose was largely absent from people's description of their climate actions, rather their description of their climate actions was heavily reliant on personal benefits and the logic of cumulative individual small actions that dominated the media sample.

8 Public Interviews: Linguistic Repertoires

This chapter analyses interviewees' perceptions of the five most common linguistic repertoires in the action discourse identified in the advertising sample, based on their comments on five indicative sheets of quotations and images illustrating the main features of each repertoire (figures 8.1-8.5). (Note that the quotations and images in these sheets have been labelled individually to aid identification; these labels were not on the sheets shown to interviewees, but the sheets are otherwise identical). These sheets were used in the final part of the interview to explore in depth interviewees' familiarity with them, and if and how they were perceived as coherent narratives about climate change. This chapter explores each repertoire in turn, before briefly summarising the similarities and differences between repertoires interviewees identified during the sorting exercise.

8.1 Small Actions

Familiarity

The *small actions* repertoire was very familiar; only one person did not immediately recognise it. There were two main sources for this familiarity, firstly a set of actions seen across a range of media sources, which were recognised as practical and widely adopted, 'I've heard like about recycling about encouraging many to do a little rather than rely on a few to do a lot, that makes sense. Looking at that I thought I have seen that somewhere but couldn't relate to where and when' (P19, Non-inf, MC). Secondly, more specifically, councils were recognised as sources of information about recycling, 'Rhondda Cynon Taff do a lot on recycling, we get yeah quite a bit coming in on the recycling issues' (P12, Inf, HC).

Overall Impression

There was a generally positive perception of *small actions* as an optimistic repertoire that promotes a common sense way of thinking, 'I do like the idea that umm, organisations are trying to persuade the public that climate change is important and that they can do something about it. Just to sort of embed that umm objective and that reasoning into public thought, yeah, yeah. So it becomes

Figure 8.1 Small Actions

1

We can save money, be healthy and tackle climate change at the same time
(Wales Carbon Footprint) **1.5**

1A

Follow these tips and you'll cut your bills, and be kind to the environment too! *(Bridgend Council)* **1.1**

1B

Going greener together
(Vodafone) **1.2**

1G

It's easy to reduce the waste we create at home. If we waste less, we save our money, resources and our environment
(Neath Port Talbot Council) **1.6**

1E

We think that it's more important to encourage many to do a little, rather than rely on a few to do a lot.

1F

We can stop the effects of climate change by making a few simple changes to our lifestyles
(Neath Port Talbot Council) **1.4**

1C

1D

Home energy saving improvements

The WRU, Welsh Government and Swalec have joined forces to put together this guide. It is full of useful hints and tips to help your club save money and tackle climate change.
(James Hook)

1V

Figure 8.2 Establishment Techno-Optimism

2

Environmental

Find out more

2B

Think better, think brighter, think smarter *(Rethink)* **2.5**

We care about the environment and actively manage our impact on it *(EE)* **2.1**

2D

Giving insight and information to help you live smarter *(British Gas)* **2.6**

2A

2V

It's a fantastic opportunity for people to really bring their homes into the 21st century *(Greg Barker MP)*

Greg Barker MP
Minister of State DECC

2G

we love the future – it's what our strategy is all about *(Nokia)* **2.3**

Climate change is no longer a threat to be feared, but an opportunity to grow the economy and lead the world *(CBI)* **2.4**

More efficient
A B C D E F G
Less efficient
ENERGY STAR

We're devoted to reducing our carbon emissions and our target is a 50% drop by 2015, compared to our 2010 baseline *(EE)*
2.2

2E

2F

1,600
Employees ride biodiesel buses and shuttles daily

50,000
Trips on Apple shared bicycles

102,500 kg
CO₂e saved by using electric vehicle charging stations

2C

Figure 8.3 Radical Action

3

3E

We have an opportunity to decide what a low carbon and resilient Wales could look like *(Welsh Government)* **3.3**

3D

Please Contact your MP

Because communities should have the power

You are the privileged, informed individual that has the ability to be part of the solution *(Fairphone)* **3.5**

3A

Passive consumers when it comes to energy, at the mercy of wholesale gas price rises and large profit-making providers *(Co-operative)* **3.1**

3F

carbon lite cardiff

Cardiff aims to be a **Carbon Lite** City:

a city where we have more active and sociable lifestyles...

Confronting the issues of climate change and peak oil can leave people feeling depressed, guilt-ridden and powerless - ...we believe that acting as a community can be less daunting and more enjoyable. *(Cardiff Transition)* **3.4**

3H

There is so much happening in Cardiff, really interesting and innovative long term projects *(Jess McQuade, Cardiff Transition)*

3V

3B

As part of this campaign we're calling for a moratorium on the development of shale gas and 'fracking' in the UK *(Co-operative Community Energy)* **3.2**

3G

3C

Figure 8.4 Green Lifestyle

Get Involved. Start Small, Think Big *(O2)* **4.1**   **4D**

4

Start
Making sustainable living simple

4A

Nobody expects you to change your lifestyle overnight – that just isn't practical – but we are all going to have to make changes in the next few years in order to tackle climate change.
(Green Guide) **4.4**

4E

4C

Here's the plan: We all cut our carbon by 10% in a year. You, me, that bloke walking his dog outside. Your work, your kids' school, the council, the church, the chip shop. Everyone *(10:10)* **4.2**

It's all about fresh thinking, looking at things differently and using technology to improve the world. *(O2)* **4.5**

THOUSANDS OF TONNES OF CARBON CUT · MILLIONS OF POUNDS SAVED ON BILLS
SUCCESS STORIES
17% 14% 15% 13%

4D

Eat seasonably

www.eatseasonably.co.uk is a campaign which helps you to experience the joy of eating fruit and vegetables at their peak of perfection: better tasting, better for the environment and better yet - better value.

Learn more

4F

Encouraging everyone who lives, works and visits our County Borough to think GREEN!
(Rhondda Cynon Taff Council) **4.3**

WE'RE DOING OUR BIT... ...TO DO THEM...LET'S GET THEM...THEIRS!

4G

Jonathon Porritt
Founder of Forum for the Future
O2

Another year of global society living beyond the limits. One estimate is that we use 150% of the resources the Earth can generate in a year

4V

It's not just something you support. It's something you do. *(10:10)* **4.6**

4B

Figure 8.5 Non-Establishment Techno-Optimism

5

It's time for a new era...

It's time for the clean energy age to begin.

go beyond oil

Take action ►

5E

Challenge the way people perceive the notion of greenness or green living – the idea that it's all about giving stuff up, about lentils and sandals (though we love both). Our work is about showing that sustainable living is something both feasible and fun (*Ecotricity*) **5.4**

5C

5B

There's a lot to do; it requires fundamental changes to the way energy is generated and used in the UK. But we believe it's possible. And there's a growing body of research, including our own, proving that it is. (*Good Energy*) **5.3**

Climate change isn't inevitable. We have the knowledge, skills and technologies to get ourselves out of this difficult situation (*Greenpeace*) **5.1**

5F

Do we want a clean energy future and a thriving green economy or do we rebuild the expensive, polluting energy dinosaurs? (*Greenpeace*) **5.2**

5A

ZERO CARBONISTA

Viva the next industrial revolution

5D

We built our new 'Sun Park' alongside one of our Wind Parks – making the UK's first hybrid Energy Park

5G

Starting an energy company came out of frustration with not being able to change the energy market ... my vision really is for the UK to reclaim its energy, to start to generate it's energy as a nation again. *Juliet Davenport, Founder/ CEO Good Energy*

5V

unquestionable you know?' (P16, Inf, AM). Two key characteristics creating this impression were, firstly that *small actions* offers 'quick fixes (that are) practical easy things that everybody can do' (P2, Inf, AM). Secondly, it is a logic that is sensible and simple to understand that makes the benefits of action clear. These elements were also recognised by the two interviewees who were familiar with *small actions*, but had not associated it with climate change, one of whom was doubtful about climate change, 'I just wasn't associating this particularly with climate change, but I do them all (laughs) religiously (…) yes only to save me money (laughs)' (P11, Non-inf, D).

The most common critique of *small actions* was that it could be used to obscure the need for other types of action. Varying degrees of intentionality were assigned to the creation of this effect, 'it's about making tackling climate change a personal responsibility, which of course it is on some level, umm but it isn't enough. Is it just to pipe people down a little bit?' (P8, Inf, HC). There were two more novel critiques of the individual focus of *small actions*. P7 (Inf, AM) liked the focus on individual actions, but criticised its uninspiring language and lack of collective purpose, '(it's) government speak shall we say, council speak, language of reports (…) they are missing a trick, umm because they are just not connecting people up.' From a doubtful perspective P18 (Inf, D) highlighted the slightly ridiculous nature of the uncritical promotion of small actions, 'well I suppose gentle persuasion that all these things, you know, (exasperated noise) the whole family smiling as a, you know, energy saving light bulb goes in.'

The images of actions attracted the most attention and were instantly recognised as constituting a familiar set, 'yeah there is all the general ideas that they try to push out' (P5, Inf, D). There was no scepticism expressed about claims that there were low barriers to taking these actions or that they had tangible (financial) individual benefits. This was reflected in widespread acceptance of them as ordinary common sense actions, 'those do strike a bell because we never, almost never, fill the kettle to boil to make coffee' (P6, Inf, AM). It was the environmental efficacy of these actions that was questioned; interviewees who were more certain about human causation often felt these actions were slightly trivial, '(laughs) the

kettle thing, yeah it just fucks me off to be honest, I just find it so, (…) you know maybe it affects your bill but I don't think it really has a global impact, even if everybody did it' (P8, Inf, HC). The less certain interviewees were often unsure precisely how these actions contributed to reducing climate change, and sometimes had had a negative experience of and/or had heard stories about these actions that led them to doubt their efficacy, 'a friend of ours says ''oh well they just throw the whole lot into landfill anyway'', I don't know whether that is true or not, I certainly hope it isn't' (P3, Inf, HC). These doubts did not lead to rejection of *small actions* as a whole.

The logic of mass participation that underpins the efficacy of *small actions* was a far less prominent feature of interviewees' perceptions of this repertoire. Some people commented positively on claims about the cumulative effect of these actions, 'I suppose that's true, Ovo Energy's remark on many to do a little. I remember years ago reading an article quite by chance about standbys on computers. This must have been in the 1990s, and it had never struck me how much power could be taken up by standby, so I tend to be more aware of that' (P3, Inf, HC). Others reacted negatively to it, 'I think this is, the bottom one I don't like, we can stop the effects of climate change is ridiculous (…) a few simple changes, no it's not simple, it's not just our lifestyles' (P15, Inf, HC).

The second element of mass participation in *small actions*, common effort by the public and the communicator, was frequently dismissed as lacking in substance and contrasted unfavourably with the concrete benefits offered by specific actions, 'this one is good because it quickly says why, gives a bit of reason behind it, so saving money, resources and environment, whereas things like 'going greener together', it's just not that useful' (P9, Non-inf, MC). Instead, communicators were conceptualised as providing useful information and possibly facilitating action, rather than as active partners. For example, for recycling this type of commitment was not seen as necessary, 'yeah local councils, their main interest is in meeting their targets on recycling and not getting fined on doing things. So they do appear to be reasonably active in trying to reduce black bag waste' (P15, Inf, HC).

Interviewees primarily conceptualised these actions, not in terms of efficacy through mass participation, but as normal domestic behaviour. They were treated as a socially approved check list, 'this (image 1D) also actually, (chuckles) recently I have gone round the house kind of adjusting certain rooms, (…) yeah that probably would be the kind of thing that would make me go yeah I better do that, I haven't checked that in a while' (P14, Inf, AM). A number of people discussed these actions in the context of their family life, 'my mam always makes sure that I turn off all the plugs in the house before I go out' (P19, Non-inf, MC). The home was seen as a defining feature of this repertoire and a good starting point for engaging people with action, 'for those people it is not perhaps important for them environment, when they want to keep their house, because for them it is such an important thing to just have a peace in the house, they don't let's say believe in this issue' (P10, Non-inf, MC). This was indeed the case for those interviewees who had not made the link between *small actions* and climate change, 'so a few of them we do in the house, but I, I didn't realise they would have much of an effect on global warming (…) I thought it was just about saving electricity in the house, and just, you know, looking after your own house' (P19, Non-inf, MC).

The role of celebrities in endorsing these norms was recognised by the interviewees, although usually as persuasive to others, 'I think the celeb thing is really good, because they do listen. Whereas you and I might go, they don't, sorry that sounds terrible 'they'' (P17, Inf, HC). However, the need to keep websites up to date was highlighted, as the most common comment this image generated was that James Hook had lost his place in the Wales team. It was notable that these actions, and the good intentions behind them, were treated as normal, even by the most doubtful interviewees when they rejected a specific action, 'I hate these bulbs so I won't use them (…) so I don't care what it costs or what it burns you know, which makes me sound selfish but, you know, that's the only thing I wouldn't do' (P11, Non-inf, D).

Summary

Small actions was the most familiar repertoire; only one person was not familiar with it, reflecting its prominence in the media sample. A widely recognised, and adopted, set of actions were identified with *small actions*. These actions were seen by interviewees as in-line with a set of positive social norms associated with domestic/family life. Energy saving/frugality, cost and common sense appeared more important to these norms than the climate efficacy of mass participation in these actions highlighted in the media sample. Although the cumulative effect logic was familiar to most interviewees, some of the more certain about climate change questioned the scale of impact these actions could have, while the less certain were often unclear exactly how these actions tackled climate change. Communicators were seen as having a lesser role, not as partners in action, but as possibly slightly reluctant, or even cynical, facilitators of the conditions for action; but this did not appear to detract significantly from perceptions of their credibility.

8.2 Establishment Techno-Optimism

Familiarity

Establishment techno-optimism was somewhat familiar; people were more likely to recognise this approach than not, but were often vague and/or dismissive about its specific details. There were two main points of recognition: firstly, material from companies, particularly energy companies, 'yeah the company ones, they are always trying to make you think they are doing it, giving their benefits. Yeah, I've, I've seen, it's what when they give you your annual bill you get a load of bumf through the post with that (laughs)' (P5, Inf, D). Secondly, energy efficiency logos were widely recognised, including by those who did not recognise this repertoire, 'I am less familiar with these images and these comments, I mean I think, obviously I'm familiar with this, because that, *the energy efficiency,* on the refrigerators and that kind of thing, electrical white goods, I am familiar with that system' (P14, Inf, AM).

Overall Impression

A majority had a negative view of *establishment techno-optimism*; the same negative points were identified by both those who were already familiar with the repertoire and those who were not. There were two dominant, and interlinked, themes of criticism; firstly distrust of companies making environmental claims, 'so no I don't believe any of the messages really unless I can visually see that they (companies) have done it' (P4, Inf, HC). Secondly, the repertoire was seen as lacking in substance, 'yes they do always talk in superlatives don't they, you know?' (P18, Inf, D). Interviewees closely associated *establishment techno-optimism* with corporate messaging, reflecting the balance of communicators using this repertoire. However, the level of cynicism about companies' intentions varied significantly. Some wanted to give them the benefit of the doubt: 'so my view again is, is in favour, I have just got that little sort of feeling that maybe companies are maybe possibly jumping on the bandwagon to publicise themselves, umm but no I hope they are sincere' (P16, Inf, AM). At the other end of the spectrum, some were dismissive of their claims as dishonest, 'the fossil fuel companies, they are doing it all over the place, so they have a small bit of that and 95% fossil fuel keep at it lads. Lobbying government to reduce the cost of fossil fuels and all that, it's just whitewash really' (P15, Inf, HC).

The lack of substance to this repertoire was a major factor in why four interviewees could not identify the overall message. Two people in the non-informed group identified a general pro-green theme, but were unable to pick up the specifics, both seemingly misidentifying the sheet as another example of *small actions*, 'so this is all about environment and climate change then (...) basically improving the environment by what we could change in our everyday lives, so like simple things that we could just switch, or change, and help the environment' (P21, Non-inf, D). Interestingly, two of the most anti-consumerist members of the mainly human causes group, who might have been expected to be among the most critical of the communicators using this repertoire, instead said very little at all, seemingly finding it too nebulous to get a handle on, 'I don't think things like that mean anything, they don't mean anything to me anyway' (P17, Inf, HC).

The techno-optimistic message received little attention; the two people who did focus on it were both from the non-informed group. They focused on the benefits of the technological transformation of the home, 'I feel like the, they are trying to, with it being technology alongside environment, like in this picture, they are trying to make it look fashionable, in a way, to and this one as well (…) they are trying to make it look stylish to be aware of the environment' (P9, Non-inf, MC). Although they were positive about these ideas, neither seemed to conceptualise them as relevant to their lives, 'bringing your homes into the 21st century, like getting all this new stuff, but people can't afford it (…) hmm, maybe some people can't even afford to put the heating on' (P20, Non-inf, MC).

Four features of *establishment techno-optimism* attracted the most attention: environmental standards, targets, its future positive outlook, and renewables. The environmental standards logos were the most (and often only) recognised element of this repertoire. However, they appeared to have low salience; a number of those who recognised them admitted they did not understand what they meant, 'I have seen that before, umm, on, it, some items in the house like the boiler and stuff, but I have no idea what it means (laughs)' (P19, Non-inf, MC). Even those who did understand it did not generally perceive it as having a high level of significance, 'your white goods being rated, not that I have ever found that when we have bought something people that were selling them have much idea about it, but that would be a good place to start' (P17, Inf, HC). The only explicit criticism of these standards was made by P18 (Inf, D), who saw them as part of the establishment consensus on climate change he objects to, 'energy saving symbols, well yes they are showing that green is good isn't it? (…) you know so, you are really anti-social if you have got an appliance that has got a G rating.'

Specific targets were viewed more positively than general statements of commitment, which were not treated as meaningful, 'I suppose where they say something specific like our target is a 50% drop by, then you can, that's tangible, therefore I guess that one might draw my attention a little bit more and say ok I can see that there is something that they are doing here, but where it is just bland words, less so' (P14, Inf, AM). However, there were still significant doubts about

the credibility of these targets. Some felt accurate figures might be used to mask the communicator's true intentions, 'well Apple, when they sort of build in obsolescence in to their equipment and then they are very keen on riding bicycles (laughs), so you know I think some people try to put a slant on what they are doing, but fundamentally they don't have those values at heart' (P2, Inf, AM). Others simply did not trust that the figures were accurate, 'I don't like that, unless they can prove, you know, I don't think they should, there should be some way, of monitoring what a company, you know, can they actually prove these statistics' (P4, Inf, HC).

The future positive rhetoric of this repertoire also generated a large amount of scepticism when used by a specific company to describe their own actions. Some treated it as meaningless, ''we love the future it is what our strategy is all about' ok, I guess the words kind of drift over you and wash over you rather than be something that would stick with me' (P14, Inf, AM). Others suspected that this rhetoric was a positive spin being placed on the company's real motivations, ''Yes we love the future, that's our strategy' (laughs) well I would think that the government, when I read that I would think, that the government has told every company to be smart about saving, so they are publicising this' (P11, Non-inf, D). When this future positive rhetoric was placed in the context of the economy as a whole, reactions were far more mixed. This was a more novel idea for most interviewees, which some found confusing, 'with climate change putting it as an opportunity to grow, umm, what, grow the economy and lead the world, I'm not quite sure how' (P12, Inf, HC). Some people were cautiously optimistic about the possibilities, '(laughs) yes I wonder how widely that's held. Yes yeah, well of course, umm there is a tendency to think oh business no.   As I spent most of my life with investors erm, I can see the benefits to business as well as' (P3, Inf, HC). Others, however, reacted very negatively to what they perceived as an attempt to play down the problem, '(laughs) some of them I disagree, 'climate is no longer a threat to be feared but an opportunity', you see there are some that I disagree with. I don't agree with that, I think that it is a threat and a big one at that' (P1, Inf, AM).

The images of renewable technology generated quite a lot of, mainly positive, comment, reflecting the largely positive public attitude towards renewables, 'nice to see (solar panels) (…) it's surprising the people I know who have had them put in, but then I did hear it could save money and energy' (P17, Inf, HC). However, people struggled to make the links with the rest of the sheet, 'it's a bit of imagery that makes maybe, draws your attention and makes you, well you have to think a bit to get the message and erm' (P12, Inf, HC). Those who did make the link between renewable technology and a hi-tech home were positive about the idea, but sceptical about the reality, 'solar panels yeah. Where is that? (laughs) that's still at the planning stage probably' (P4, Inf, HC). Smart tech is one of the main bridges *establishment techno-optimism* uses to link technology and the environment, but there was limited interest in smart tech in this context, 'we were offered and decided that we didn't really need it' (P12, Inf, HC). The broader green imagery and rhetoric attracted little specific comment, although it did clearly establish the environmental theme of this repertoire, even when the specifics were less clear, 'two is also about your future and the environment for the future' (P21, Non-inf, D). Overall, the repertoire appeared to fail to link the public's positive view of renewables with the future positive rhetoric of *establishment techno-optimism*; people made more links between renewables and the repertoires on the other sheets they appeared on, despite those repertoires being less familiar.

Summary

Establishment techno-optimism was at least somewhat familiar to the majority of people. However, this familiarity was often quite vague, at least partly because of a perceived lack of credibility of the large businesses that were seen as the main establishment messengers, leading to people paying limited attention. As a result many identified this repertoire as a form of advertising, and interestingly not only did people dismiss its influence on them, but no one suggested any third person effects either. Most people identified the core message of the repertoire, a positive aspirational vision of a green future. However, the role that renewables and smart technology play in this vision was much less clear to people, failing to draw on the positive public perceptions of these technologies. The use of environmental

standards and quantified targets to attempt to address issues with the communicators credibility were much more familiar, but understanding of, and importance attached to, these standards was low, and suspicion of the targets was high. Despite this the arguments of *establishment techno-optimism* were viewed as at least plausible in theory, particularly at the level of the wider economy, but there was deep scepticism about companies' real intentions.

8.3 Radical Action

Familiarity

Recognition of *radical action* was low; only five people were familiar with this repertoire. The two current students (P9 and 10) were both familiar with it from student projects. Two others (P8 and 15) recognised it from contact with campaigning organisations, 'Ok so this is the more kind of activist approach isn't it? So Cardiff Transition umm, I think I have met them on the Taff Trail' (P8, Inf, HC). P7 (Inf, AM) associated it with Cardiff Council where *radical action* was the primary repertoire on their website.

Overall Impression

Despite this lack of familiarity, the majority of people (17 out of 23) identified what they felt was the main message of the repertoire. The main focus of 13 of these 17 people was local agency and place-based community actions, with little attention to the wider radical changes these actions are aimed at achieving. It could be that the images and text selected for the sheet did not reflect the relative importance of radical change in the repertoire as a whole. However, people's comments also suggested some reasons why low importance was attached to the radical element of the repertoire, rather than it simply being absent from the sheet. The dominance of *small actions* means that people are used to thinking about climate actions as individual actions, rather than contributions to wider social change, 'so this is all about … what people are doing, little community projects to help the environment' (P21, Non-inf, D).

There was a significant difference between how the informed and non-informed groups talked about local agency, leading to very different views of the likely efficacy of *radical action*. Five of the six people with a positive view of the efficacy of this approach were in the non-informed group, while all six people with a negative view of it were in the informed group. The non-informed group primarily saw local actions as something that would be enjoyable, 'I think (…) it being a community atmosphere is really important. I think a lot of people would be interested to come together to do something' (P9, Non-inf, MC); and would have individual benefits as well, 'really good not just for pollution but for everyone's like fitness and wellbeing as well' (P21, Non-inf, D). Their view of its wider efficacy borrowed heavily on the familiar cumulative impact logic of *small actions*, 'I think you can't just tackle a situation like climate change head on, if you start in the communities, and then everyone does their own little bit, little and often' (P19, Non-inf, MC).

In contrast, the informed group placed local agency in a wider societal context, 'right this is more the active, this is how to become part of the movement…looking at communities helping themselves then and yeah and also, maybe volunteering in, and maybe finding a way to generate jobs as well maybe' (P12, Inf, HC). However, they did not find local agency a convincing source of effective action, perhaps because they were far more familiar with the scale of the problem, 'tackling climate change at the community level umm, is a drop in the ocean, in my view' (P16, Inf, AM). Generally they saw the campaigning organisations communicating this message as credible, but didn't find local agency convincing, 'I give this more credence I suppose, because I think the people producing it aren't acting necessarily purely from self-interest. Umm, but again the kind of personal, how much impact you can have personally' (P8, Inf, HC). In addition, the non-informed group may actually find these actions more credible and relevant to their lives, because they take place locally and do not appear to be directly related to national politics or political participation. On the other hand the informed discourse group's higher levels of scepticism about the potential efficacy of local actions may also reflect their greater scepticism about the responsiveness of local democracy.

The radical change aspect of the repertoire appeared to be clearer to the most doubtful group; three of the four people who focused on the radical element, rather than local agency, were in this group. They reacted very negatively to *radical action*, questioning its societal implications, 'transition to low carbon (…) of course we have to move somewhere, but they don't really point out the implications of having to use less power, of having to use the car less' (P18, Inf, D). *Radical action* also seemed to be associated with negative views of environmentalism; as badgering – 'so people sort of demanding isn't they? (…) Well I've come across the fact that they are trying to make us feel guilty (laughs)' (P5, Inf, D) – or alarmist, 'I don't think it is meant to be scaremongering, but I think it is, a lot of it you know' (P11, Non-inf, D).

The majority of comments focused on representations of local agency. Local agency was very attractive to the non-informed group and made *radical action* appear very different from the other repertoires. It involves real people in actions, 'it just looks like everyday people, like they, the other sheets are like companies, and these are like what people are doing' (P20, Non-inf, MC); and locates action in specific places they linked back to where they live, 'it's good that they encourage people to learn about growing food, I know that in a number of our primary schools in our, in the valleys they have got a number of garden areas where they grow things, flowers or fruit and veg' (P6, Inf, AM). This combination was appealing – 'I think it's like using emotive pictures is a good way to get a message across. It makes me interested to learn more about what kind of projects are in Cardiff to be involved with' (P9, Non-inf, MC) – even to the informed group, who were doubtful about the wider efficacy of local agency, 'I tend to look at the national or international stuff, rather than the local stuff, umm if I was living in Bristol then things might be a bit different. They appear to be a bit more organised in Bristol and I can imagine if I was living in Bristol I would be involved' (P15, Inf, HC).

This repertoire did succeed in getting people to conceptualise some of the actions most commonly associated with climate change in a more collective context. For example, those picking up on the image of cycling talked about cycle lanes and wider transport infrastructure rather than their own personal cycling habits.

Similarly, with renewable energy, 'That's a good point (image D), because I think one of the major roles of a government is to make it as easy as possible for people to do the things that they need to do to keep the country running' (P6, Inf, AM). The premise that collective action could be more effective than acting individually was well received, 'I suppose I agree with that one, the Cardiff Transition quote, because sometimes you can feel like it is all on you, when you work together it's a bit easier' (P22, Non-inf, MC). These types of collective projects appeared to be interpreted as the type of inspiring exemplar projects that *radical action* wants to present, 'this is like the, that power centre (…) in Machynlleth (CAT), that's a good demonstrator isn't it' (P12, Inf, HC).

The idea of individual responsibility to take action as part of this collective change was much less well received. Rather than being empowering, this framing was dismissed as unrealistic in its assessment of individual efficacy, 'but the glib sort of things that two over there, the implication that we can, there seems to be an implication that we can make a lot of difference by acting in this way, I don't actually believe any of that' (P15, Inf, HC). It was also seen as unfairly assuming that people are not acting due to a lack of responsibility, and failing to acknowledge the wider barriers to action, 'it seems quite negative (…) it makes us seem like really inconsiderate, almost as if we are just, as if we don't care, almost as if we are just like doing it because we, why not like? (…) It's like, it's almost they (the communicator) are saying we are stupid and they (companies) are just making money off us' (P22, Non-inf, MC).

Bridging the gap between local agency and societal change, which is required to conceptualise these types of community projects as part of a larger societal change, was a major problem for *radical action*. Quotation 3.3 provided a potential bridge of this type that several people picked up on, but they either saw the Welsh Government as too small scale to be relevant to climate change action or were unable to relate how the types of project on this sheet were relevant to the national scale, 'I must admit that I am not that familiar with what, I haven't looked critically at what the Welsh Government is saying about this. I tend to look at the national or international stuff, rather than the local stuff' (P15, Inf, HC). It was

notable that P18 (Inf, D) was the only person to articulate a clear idea of how local agency and societal change could be linked by talking about a low-carbon transition (which he opposed). Those in the non-informed group who were positive about *radical action* lacked the language to describe this type of change, 'just by seeing the bike I think I know about the situation. I know what they are getting at' (P21, Non-inf, D), often falling back on the more familiar rhetoric of *small actions* to describe how local agency would work.

The use of fracking as a pantomime villain was not particularly successful. A reasonably high level of awareness of the term fracking, with a number of people commenting on it, did not translate into fracking taking on this role. Levels of understanding of what fracking is were not particularly high, 'I'm not sure, fracking is another thing I don't really, I kind of understand it, but I am not sure about it, umm' (P1, Inf, AM). Amongst those who identified fracking as a bad thing, the main reaction was a feeling of powerlessness, 'and what can I do about calling for a moratorium on fracking? There is not a lot I can do about that' (P2, Inf, AM). Fracking appears to be viewed as an issue to potentially be spectated on through the media, but not one that people can affect or is relevant to their lives.

Summary

Radical action was unfamiliar to the majority of people, although most were able to identify at least part of its core message relating to local agency. Local agency, rooted in specific places and people, led to climate actions being conceptualised more collectively. The informed group were unconvinced by the likely efficacy of local agency in bringing about radical change due to its small scale. In contrast the non-informed group, who were less familiar with the human causes of climate change, were not concerned about wider efficacy and focused on the collective benefits of participating in these types of action. People often lacked the language to describe this type of wider transition, falling back on the more familiar individual framing of *small actions* to describe actions efficacy. It was actually the most doubtful about anthropogenic climate change who focused on the wider

transformations implied by *radical action*, and reacted very negatively to what they perceived as alarmism and attempts to make people feel guilty.

8.4 Green Lifestyle

Familiarity

Familiarity with *green lifestyle* was relatively high; people were twice as likely to say they had seen it as not. Although often this recognition was somewhat vague or limited to one or two elements of the sheet, 'I guess one or two might be familiar. I mean this kind of thing I've probably seen that, that probably isn't too unfamiliar' (P14, Inf, AM). *Green lifestyle* proved to be a chameleon-like repertoire, the sources people recognised it from were quite varied and even in some ways contradictory. Some identified it as common promotional material, 'it's just a poster or flyer, and get you to read a bit more, but they want to do it in a sort of lightish style to make sure people are aware of the problems without taxing their brains too much, and give them a few simple ideas' (P4, Inf, HC). While others thought it was far more niche, 'I think you probably might see it from a columnist in *The Guardian*, or maybe somebody on Channel 4 News, but I don't think it is an approach that is mainstream' (P8, Inf, HC).

Overall Impression

Most interviewees perceived *green lifestyle* as a positive repertoire that suggests practical things that ordinary people can do, 'yes yes very positive messaging and my thought is that you start, you start with your own homes, start small think big yeah, I like that' (P4, Inf, HC). This ease and practicality of action is similar to *small actions*, but interviewees perceived *green lifestyle* as also helping people locate these individual actions in the larger context of climate change, 'having a personal target might encourage them to do something, and see a level that's achievable and do it (…) Also it's trying to give you a bit of feedback from people who have actually done things, (…) it's got a plan' (P2, Inf, AM). This personal plan was much more successful in convincingly bridging individual actions and wider changes than

local agency was in *radical action*, 'I think the key message coming across from this one is like we can all do something if we make a start. It's all the little things that eventually add up to the big things' (P6, Inf, AM).

The positivity of *green lifestyle* was a key part of its appeal, 'I do relate, personally, more to the language which is being used here. Umm and I think this language would be more practical at getting people to do things (…) yeah it's just more personal at the end of the day. I wish there would be more of it actually (chuckles) I really do' (P7, Inf, AM). As well as being personally engaging, it also made the larger context more tangible, 'there is something about, you know I quite like the words here actually, these words jumped out at me, like you know 'here's the plan' it's like getting down to business, you know it's not woolly words, it's like come on this is something that we can do' (P14, Inf, AM). Celebrating success is an important element in this positivity, and was contrasted favourably to the tone of climate discourse as a whole, 'and maybe we should be celebrating more (…) we tend to concentrate on the negative, what's the negative of having a wind farm, the negative of climate change, the negative of burning fossil fuels. Instead of looking at the companies, and individuals and organisations that have actually done the little things that are making a difference, so we need to celebrate success more, which we don't tend to do' (P6, Inf, AM). These successes were perceived as meaningful achievements rooted in the real world, 'real people who are successful, I think that's a good idea. So in Wales we are often in quite small communities even in cities, there is a chance you might recognise somebody, vaguely. But that would definitely impress' (P17, Inf, HC).

People's perceptions of the level of action implied by *green lifestyle* varied substantially. For example, P8 (Inf, HC) saw it as advocating big changes beyond common actions like recycling, 'the idea that you have to make changes, you know change your lifestyle, I don't think that is just about recycling, (…) those changes they have to be on a more massive scale than have a shower instead of having a bath.' On the other hand, P10 (Non-inf, MC) saw it as getting people started with common actions like recycling, 'can motivate people to umm, to change their lifestyles, but also (…) they can also show that, they can also make it interesting to

start, like for example just by removing garbages.' *Green lifestyle*'s open and gradualist approach to taking action meant it was positively received across a range of opinions. Firstly, it was seen as practical and realistic, even by those who want quite major changes, 'and then it is true, you can't do it overnight. I mean we started not taking the bags from the shop, then we moved to something else and then you know, it was like even when I stopped eating meat it was progressive' (P13, Inf, HC). Secondly, it also created a tone that was more inclusive and less overwhelming, 'that's a bit nicer, seems a bit more, I don't know, like approachable perhaps, like we have only got to do, like that one then we haven't got to do it overnight it's just, it's going to take time' (P21, Non-inf, D). It was noticeable that this sheet encouraged deliberative talk about the level of action climate change requires in a way that none of the others did.

The embracing of mainstream modernity in *green lifestyle* appeared to be accepted as unproblematic, reflecting that negative stereotypes of environmentalism as a niche position were rarely mentioned throughout the interviews. Doubts about green modernity, mainly expressed by the most doubtful group, related to affordability not feasibility, 'they (solar panels) are probably good in the long run, like for the future, saving money and things, but I just think, it's probably, I don't know how much it is, but I think that it is probably quite expensive' (P21, Non-inf, D). Green simplicity as part of a modern lifestyle was also well received; interestingly this was something the non-informed group commented they had noticed an increasing amount of recently and received positively, 'when you are eating seasonal veg and fruit, I have heard more about recently, mentioned quite a bit in recipe books that I am picking up and things. I'm not sure whether their view is just to do it for the environment, or just because it tastes better. But if it has the same kind of effect, then as long as that is helping then that's fine' (P9, Non-inf, MC).

Features relating to the challenge to consumerism and the extent of the changes that this will require generated a lot of comment. It was clearly a familiar message for the informed group. Interpretations of, and reactions to, this message varied widely, reflecting the ambiguity created by *green lifestyle*'s explicit statements

about the limits to consumption at the societal level, and more open and gradualist approach at the individual level. For some the Jonathon Porritt quote seemed out of place, 'obviously this one down here is the odd one out, I guess because it's umm, it's telling us that we are running too hot. But generally apart from that one there I think we get a positive impression from this page' (P14, Inf, AM). Some questioned this approach, 'Jonathon Porritt's hyperbole, does it really shock people into doing something?' (P18, Inf, D). On the other hand, P3 (Inf, HC) had been prompted to calculate their carbon footprint by this type of messaging, 'I remember there was Christmas Royal Institutions lectures, which ended by pointing out that Western societies live at a rate which require two or three earths and I hadn't really thought of it in those terms until then.' Others felt this message was important, but they anticipated it would have limited impact, 'everyone wants to get to American lifestyles so, yeah just raising consciousness, just keep banging on about it and hope that people get the message, you've got to do it yeah yeah' (P15, Inf, HC).

Green lifestyle was most positively received in the mixed causes groups. It made the idea of individual actions having an impact seem more plausible, 'even though I said probably government are the ones that should be changing it, if people are becoming more aware of what they can do to help then it will probably be something that communities can do without the need for government to put a policy in place' (P9, Non-inf, MC). They also felt it recognised their efforts, instead of over emphasising individual responsibility, 'I like that one, we are doing our bit, let's get them to do theirs. Because they want us to turn off our tellies, which are on standby, but then they light up a building, and there is no need to really is there, so. No I think that is the one that gets me the most' (P22, Non-inf, MC). Criticisms of *green lifestyle* mainly came from those at either end of the causation scale, who saw a mismatch between actions and rhetoric. The mainly human causes group were far more likely to feel the actions lacked real substance, 'it's bigger scale and it does bring your attention without actually saying how you go about it, it's just making awareness isn't it, an exercise' (P12, Inf, HC). Two of the doubtful group also identified a lack of substance in its anti-consumerist rhetoric, 'they are not

really saying, well lets share it out more favourably, so everyone consumes the same and we will be a lot poorer' (P18, Inf, D).

Summary

Green lifestyle was the most familiar repertoire after *small actions*, but there was not the same level of familiarity with its details. It's generally favourable reception was based on widespread perceptions of it as a positive and practical repertoire that puts individual actions into the larger context of climate change through a personal plan. This is consistent with findings that positive messaging on climate change is usually more effective (Moser & Dilling 2004). However, the extent of lifestyle change it was seen as implying varied widely. The compatibility of green living and modern lifestyles at the personal level on which this repertoire rests was largely accepted as unproblematic. Reactions to warnings about the limits of consumerism at the societal level varied widely, reflecting the widely varying perceptions of the extent of change that the repertoire implied. However, its open and gradualist approach to lifestyle change was well received and generated a lot of talk about the levels of action needed to tackle climate change. *Green lifestyle* was most convincing for those in the mixed causes groups, but there was more negative reaction from both those in the doubtful group who rejected its anti-consumerist framing, and the anthropogenic group who were more likely to see it as lacking in real substance.

8.5 Non-Establishment Techno-Optimism

Familiarity

Non-establishment techno-optimism had low levels of recognition; only three people said it was familiar, although several others identified it as something you might see outside of mainstream public discourse, 'the kind of thing that might pop up on Facebook and again that I might see at festivals, or on a specific literature, but I don't think that it is mainstream kind of stuff' (P8, Inf, HC). The sources identified for this repertoire, as with *radical action*, were campaigning organisations

and serious news providers such as *The Guardian* and *Radio 4*. P10 from the non-informed group was familiar with it from the content of his university architecture course, but had not seen it in the media. Some of the interviewees, particularly in the non-informed group, were surprised by the time they saw this final sheet how much unfamiliar climate material there was, 'I haven't seen any of these either. Are they like hidden away?' (P22, Non-inf, MC).

Overall Impression

Despite the low level of familiarity with *non-establishment techno-optimism*, a large majority of people had similar positive reactions to this repertoire. It was seen as challenging conventional thinking by proposing large-scale, long-term changes, 'it is changes on that, on that larger scale. I think government is probably quite frightened to put forward these ideas' (P8, Inf, HC). This large-scale thinking was well received, 'it's about promoting sustainable development really, and I think that's sensible (…) that's broadly in line with my own feelings' (P3, Inf, HC). These big changes were largely seen as positive and credible, 'I like the positivity yeah. And there is an incredible example there of somebody (Juliet Davenport) who actually did something about it big time' (P6, Inf, AM). For some people it also successfully bridged the gap between large-scale change and individual action by creating a sense of agency and involvement around this technology, 'breaks it down for the average person, so that everyone understands, then the more knowledge that people have, the more power they have to help the environment' (P19, Non-inf, MC).

A number of people, however, could not see how the positive tone of the repertoire related to concrete actions. Some people were unable to identify the overall vision, 'so I am getting positive messages from that, I've just got slightly confused messages' (P14, Inf, AM). While others could not see how such a big change could come about and/or what role they could play in it, 'I don't know really, because that seems to be going, like way down the line like' (P22, Non-inf, MC). Three people expressed negative views which collectively covered each element of *non-establishment techno-optimism*. P16 (Inf, AM) felt that it was too

optimistic, 'I think probably short-term, medium-term my view is it's umm, erm, not going to happen, not going to have such an effect you know.' P15 (Inf, HC) rejected the focus on technology, 'we have the knowledge skills and technologies, but do we have the social organisation, do we have the international, international commitment? No we don't.' P18 (Inf, D) was suspicious of the non-establishment claims of this repertoire, believing that behind this rhetoric was a lot of institutional support, rather than genuine public choice, 'I suppose there may come a time that green living is the normal method (…) governments can manipulate things so that, you know, green energy was cheaper, governments can do things to make green choices, erm the ones you make because they are the cheaper options.'

The viability of renewables as a large-scale energy source, which this repertoire rests on, was widely accepted, reflecting the desirability and credibility attached to renewables throughout the interviews. Images of domestic installations were seen as confirming a growing and beneficial trend people saw around them locally. There was, however, considerably less familiarity with how renewables and green energy companies operate at the larger scale, 'I'm not clear whether the energy companies make that much difference between themselves in how they produce their energy' (P3, Inf, HC). Public opinion was seen as the main barrier to renewables, 'people say oh we need stuff like this, but then as soon as there are people like, ahh it's in their area, they don't want it in their area, because they think they are, I love watching them by the way, but people think they are hideous' (P23, Non-inf, HC). The technical feasibility of renewables delivering the substantial levels of power the repertoire proposes was not really questioned. Doubts were limited to a few joking comments about solar energy in the UK climate. Possibly as a result, there was little comment about the technological inventiveness of this repertoire.

There was far more interest in ideas about larger scale change and/or a national project, which were well received, particularly in the non-informed group, for whom a large-scale transition was a novel idea, 'the whole environment, energy, the future, climate change stuff, so it does seem like, I don't know, they are definitely grabbing people's attention because their quotes seem to be quite

strongly built' (P21, Non-inf, D). The visual representations were very effective in communicating these ideas, both image 5C, 'Ok, well it looks cool, like from a complete outsider it looks kind of, I don't know inviting and stuff, it looks kind of like the Sims and all that' (P9, Non-inf, MC), and image 5E, 'I like that one, the go beyond oil, sort of saying, you know, change what we have done for years' (P22, Non-inf, MC). However, the more detailed and formal language used was commented on by several people, 'some of them are appealing either to people in the industry or more intellectual maybe, you can see a bit of Spanish or whatever it is (5D)' (P18, Inf, D). This sometimes led to people being confused rather than enthused, 'umm, maybe they are trying to find a different way to use energy? That's it, that's all I get from that, obviously that's bad, that's good (laughs)' (P23, Non-inf, HC).

The credibility of *non-establishment techno-optimism* as a practical call to action was enhanced by the credibility that many interviewees attached to the communicators on the sheet because of their non-establishment status. Contrasting quote 5.2 from Greenpeace with the CBI quote (2.4) on the *establishment techno-optimism* sheet P21 (Non-inf, D) said, 'they (CBI) could be, you know, aiming to help the environment, but by distracting you away from climate change and wanting you to pour your money into, whatever else they have got in mind, whereas Greenpeace seems to be focused on one thing.' Greenpeace were widely recognised, and had been spontaneously mentioned earlier in the interview by several people. They enhanced people's perceptions of the credibility of the message far more than any other communicator on any of the sheets, and were seen as representative of this non-establishment appeal, 'a lot of people like Greenpeace are often seen as erm, meddling, they, you know, they make good points' (P6, Inf, AM). The green energy companies were less familiar than the NGOs, and some people were suspicious of them, 'they are businesses basically; so I would look fairly critically at anything these businesses say about things' (P15, Inf, HC), but generally they were also viewed positively.

Summary

Levels of familiarity with *non-establishment techno-optimism* were low. Most people were able to identify the general gist of this repertoire, and saw it as outside of the mainstream public discourse about climate change, but a number of people either found its message slightly confusing or unengaging. This repertoire was more successful than others in communicating the possibility of significant large-scale change and offering a positive and credible call to action for people to take part in this change. These changes were generally positively received, although sometimes the repertoire could become inaccessible to those who were less familiar with more specialist climate discourses. There was widespread acceptance that renewables were a credible source of substantial amounts of energy, but it was also noticeable that beyond home installation of solar panels there was very low awareness of other options for public involvement. The non-establishment nature of the communicators, particularly Greenpeace, was important to the credibility of these actions.

8.6 Repertoire Sort

Interviewees were asked to sort the five repertoire sheets into groups according to criteria of their own choosing. Most of the comments people made during this sort have been integrated into the analysis above. This section briefly describes the most common groupings. Some people did divide them in to individual action and techno-optimism repertoires. This was relatively uncommon though because, although people often identified the shared individual action theme, 'well I think those are more going to pick things out that individuals can do' (P17, Inf, HC), technology was rarely selected as an organising theme, while all the repertoires were largely felt to be optimistic. There were a number of similarities in the groupings of repertoires made by interviewees and those found in the media sample. *Establishment techno-optimism* was most often paired with *small actions*, a common overlap in the media sample, usually on the basis that they both involve ideas that will be familiar and easy for everybody, 'more for the general public,

something a bit lighter to umm, make them aware of the problem I suppose' (P5, Inf, D). There was also a perception that they were both typical of business messaging, 'the reason I put these two together is that they feel more like corporate messages generally' (P14, Inf, AM).

Non-establishment techno-optimism was most commonly paired with *green lifestyle*, as the pair that had visions for large-scale change, 'a kind of before and after kind of thing, so it is showing, you can have a green world' (P19, Non-inf, MC). It is interesting that *green lifestyle* was paired most frequently with *non-establishment techno-optimism* on this basis, rather than *radical action* which was a common pairing in the media sample, reflecting that the transformative element of *radical action* did get somewhat lost compared to local agency. *Radical action* and *green lifestyle* were frequently paired on the basis that they were both about personal responsibility (both individual and collective), 'more about the community, more about the individual, more about the responsibility, more about getting on with things and making it happen' (P14, Inf, AM). They were also seen as the most focused on environmental lifestyle, 'yeah carbon footprint and how you can generally make your lives healthier' (P21, Non-inf, D). *Small actions* and *non-establishment techno-optimism* were the only repertoires that were never grouped together. Three interviewees could not identify any distinguishing criteria to base a sort on, 'I think they are all quite similar, they are all saying that we obviously need to change' (P22, Non-inf, MC).

9 Conclusions

9.1 Research Aims

This study placed its analytical focus on climate change as a public issue and in particular understanding climate actions as forms of public action. There were two main reasons for this focus on the public: firstly, a normative commitment to the importance to democracy of deliberation in public discourse; secondly, placing climate actions in the context of wider theoretical understandings of public actions. In doing this I sought to provide an alternative perspective on climate actions, carrying out a discursive content analysis of the relatively understudied advertising and PR discourse about climate actions, and exploring people's perceptions of climate actions in the context of their wider public connection through qualitative semi-structured interviews.

Revisiting the first two (of four) research questions:

What types of climate actions are most common in advertising and public discourse?

What role do these actions play in the construction of climate change as a public issue?

Climate actions are an important part of the construction of climate change as a public issue, but are an element of public discourse that has been relatively understudied. Studies of public discourse about climate change have focused on climate science (Moser 2010, p.32) and the negative impacts of climate change (O'Neill et al. 2013, p.414). News coverage and other factual media content about climate change have been the focus of media analysis (Schafer & Schlichting 2014, p.151). A wide range of factors affect the adoption of specific climate actions (recycling, energy saving, contacting politicians et cetera) (Gifford 2014, p.553). In studies exploring these factors, perceptions of climate change as a public issue are one factor among many affecting the uptake of actions. In contrast, the recognition

of actions as responses to public issues was central to this study. By looking at advertising and PR, this study identified the most commonly represented actions and asked how these contribute to the construction of climate change as a public issue. The answer to these questions can provide important insight into public understandings of climate actions and how these understandings shape, and are shaped by, the construction of climate change in public discourse.

Revisiting the final two research questions:

What forms do public connection to climate change take?

How are these related to wider forms of public connection?

In answering these questions the study sought to fill a gap in the literature between studies exploring the influence of public and media discourse on public understanding of climate change (Nerlich et al. 2010), and studies demonstrating the potential of deliberative exercises in informing public understanding (Hobson & Niemeyer 2011). It did so by examining forms of public connection to climate change, including the extent to which these connections offered opportunities for deliberation and how they related to wider trends in public connection. Past studies have identified how factors such as pro-environmental attitudes and political ideology affect public attitudes to climate change (Whitmarsh 2011), but less attention has been paid to the specifics of how and why public connection to climate change takes place. Understanding these details and how they relate to wider public connection is important to efforts to enhance public connection to climate change.

9.2 What Types of Climate Actions are Most common in Advertising and Public Discourse?

In order to explore the most common types of climate actions in public discourse I analysed a media sample of web based advertising material about climate change from a range of different corporate, government and NGO communicators. Public

interviews were also used to explore what climate actions people were most familiar with. Although there were substantial differences in the construction of climate actions by communicators in different sectors, there were also striking similarities in the most common types of actions and how these actions were conceptualised across both the media sample and public interviews. That no other major types of climate actions emerged from the public interviews suggests that my advertising sample does not exclude any climate actions that are prominent in other areas of media or wider public discourse. The action discourse identified in the media sample appears to be fairly representative of how climate actions are talked about in wider public discourse. This section discusses similarities first, starting with the resolve consensus that underpinned the action discourse and then looking at individual civic engagement actions as the dominant form of action in this discourse. It then looks at differences, firstly between communicators in different sectors, and then between the main linguistic repertoires within the action discourse.

9.2.1 Resolve Consensus

The central unifying factor in the action discourse is its focus on climate actions based on a resolve consensus position that: (i) climate change is a real problem, (ii) it is caused by humans and (iii) that it is solvable by human action (Ereaut & Segnit 2007, p.11). All communicators across every sector at least implicitly accept, and certainly never contradict, the resolve consensus position in their websites. The resolve consensus still allows for considerable variation in communicators' climate messaging, including in the (often limited) range of climate actions suggested and the extent to which the urgency of action is emphasised. These substantial limitations of the resolve consensus and action discourse are considered at length in the rest of this section, but it is worth considering first the ways in which they do strengthen public discourse about climate actions. Although the prevalence of the resolve consensus may be unsurprising given that I selected the advertising sample in order to study an action oriented discourse, it still tells us some interesting things

about public discourse on climate change. The resolve consensus was identified as emerging from a rapid change in media discourse (including both news and advertising material) over a two year period between 2005 and 2007 by Ereaut and Segnit (2007). During this time acceptance of the three premises of this consensus had rapidly become widespread, and the focus of discourse had shifted substantially from an alarm consensus based on the threat of climate change, to a resolve consensus based on acceptance that climate change is real and requires action.

In contrast, six years later, when I carried out this analysis, there had been little change and the action discourse remained organised around this resolve consensus. This action discourse could potentially have shifted away from the current form of consensus in a number of ways. For example, the rhetorical basis for action could have shifted to become centred on a shared political commitment to act (for instance the UK Climate Change Act 2008 or an international agreement), or on joining in grass-roots climate actions already taking place (a minor repertoire in the advertising sample). These forms of consensus would be far stronger bases for action than a simple, often implicit, acceptance that climate change is real and solvable by human action. Alternatively there could have been a shift away from an action focus, perhaps through a return to alarm, or even a break down in the broader consensus that climate change is happening. The continued dominance of the resolve consensus as a way of talking about climate change is in itself an important finding, one that has significant effects for the forms of public advocacy found in the media sample.

There was evidence of strong public expectation that organisations will adopt the resolve consensus and take part in the action discourse centred on these common actions. Firstly, there was widespread participation in the action discourse, even among non-environmental organisations; only political parties and one local council had to be excluded from the media sample due to an absence of material. Secondly, several interviewees said the public adoption of the resolve consensus found in the repertoire sheets was the minimum they expected of these organisations. Organisations can take positions outside the resolve consensus, but

only by stepping entirely outside the public legitimacy of the action discourse; explaining the absence of such positions from the advertising sample. In contrast, members of the public who expressed doubts about the resolve consensus, were largely seen as holding idiosyncratic, but legitimate, personal opinions as part of the democratic process. Organisations could take different positions outside of their own advertising material; for example, while a number of communicators made arguments in favour of keeping or strengthening the Green Deal, arguments for cutting it were entirely absent from the media sample; the main debate was taking place in the news media. So although most organisations feel they have to take part in the action discourse, it is not the dominant element of public discourse about climate change as a whole. Public expectation pressures organisations to take part in the action discourse, which requires acceptance of the resolve consensus, but it is still possible for them to adopt different positions on action in other parts of public discourse, although this leaves them open to charges of hypocrisy.

9.2.2 Individual Civic Engagement Actions

The action discourse is dominated by one type of public action, individual civic engagement actions; actions taken individually that are recognised as addressing a public issue but, unlike political actions, do not attempt to influence other actors (Ekman & Amna 2012, p.291) (see table 2.8 for full typology of actions). Within the category of individual civic engagement actions there were further limitations on the range of actions represented. All the common actions are mitigation, rather than adaptation, actions; reflecting the dominance of mitigation in wider public discourse (Adger et al. 2009). The same specific types of individual civic engagement actions dominated both the media sample and the interviews: recycling, regular energy saving, one-off energy saving, personal transport and eco-shopping. These types of climate action are familiar from the literature about common climate actions (e.g. Whitmarsh & O'Neill 2010) and many are already widely adopted (DEFRA 2009). Even within these categories of actions there was a

narrow focus on a small number of specific actions, leading to low awareness of alternative forms of action of the same type. For example, a number of interviewees were enthusiastic about renewables, but only mentioned domestic installation – which they rejected for cost reasons – and were not aware of alternatives such as green energy suppliers or community renewables where these barriers may have been far lower. For most interviewees climate action meant a limited number of specific well-known individual civic engagement actions, with recycling and personal transport choices being the most widely familiar; they very rarely suggested any other types of public action.

That climate change should be addressed by individual civic engagement actions is one of the key messages of the action discourse. Individual civic engagement was the most common form of action across all sectors and repertoires within the media sample and all positions on climate change among the interviewees. These actions are a good fit with the cumulative efficacy logic of *small actions*, the most common repertoire within the media sample. *Small actions* framings such as 'we think that it's more important to encourage many to do a little, rather than rely on a few to do a lot' (OVO Energy) were widely familiar to, and frequently used by, interviewees. The most common framing of individual civic engagement actions by interviewees, however, was in terms of domestic greenness, where taking action reflects social norms and is less concerned with tackling climate change, or the public world more generally, and more with 'just, you know, looking after your own house' (P19, Non-inf, MC). Both *small actions* and domestic greenness are underpinned by a very broad social norm that being green is good. They rarely address how these actions relate to climate change as a public issue or why action is necessary. The details of their case for action are frequently focused on making (financial) savings at home. Within these framings these individual civic engagement actions are viewed as unremarkable and uncontroversial.

The domination of the action discourse by individual civic actions may favour particular ways of addressing climate change. It can be linked to wider concerns that the possibilities for public action may be limited by addressing people as private consumers rather than public citizens (Clarke & Newman 2007) and a

growing trend towards emphasising individualist values and perspectives that may mitigate against tackling climate change (Brulle 2010, Corner & Randall 2011). Although there were plenty of examples of these trends – 'energy efficient windows (laughs) so my bills are not so high' (P22, Non-inf, MC) – there is nothing intrinsic to individual civic engagement actions that precludes more public motivations for taking them. There were also examples of interviewees framing individual civic engagement actions as informed by wider public concerns such as ethical consumption (Schudson 2007, p.240), and of commitment to public issues informed by individualist forms of responsibility (Lichterman 1996); 'I try to buy locally up to a point, I tend not to buy things that have been unnecessarily brought in but, (tuts) I mean flowers and vegetables grown in Kenya' (P3, Inf, HC), although these were the exception rather than the rule. The dominance of individual civic engagement actions did not reflect an acceptance by interviewees that they represented the best approach to climate action. Many also placed substantial responsibility on government for dealing with climate change, a contradiction that the interview brought into focus for several people. The ubiquity of individual civic engagement actions, however, meant that interviewees were much less familiar with, or able to articulate, alternative approaches or policy options, and were very unlikely to suggest political actions to bring them about.

9.2.3 Differences between Sectors

NGOs were more likely to make a moral case for tackling climate change and to suggest political actions. NGOs' framing of climate action as a moral issue involved more frequent use of alarming representations of the impacts of climate change. These representations were also more likely to highlight threats to the natural world, developing world and humanity. This moral responsibility to act based on a holistic global conception of the environment reflects a central message of the modern environmental movement (Macnaghten 2003, p.65). Alarming representations were, however, only a small element of NGOs' overall message, reflecting that they remained firmly focused on resolve and action elements of

climate discourse, rather than alarming impacts. For example, NGOs were, as might be expected, most likely to appeal to the intrinsic value of nature in their visual representations of nature. Reflecting the resolve framing, these representations tended to valorise nature's strengths, often through images of renewable energy, to underpin the case for action. Representations of nature as being vulnerable to damage by people were far less frequent. This focus on the strength of nature reflects representations of the environment in wider advertising, whereas representations of nature as under threat are more common in factual programming (Hansen 2002, p.510). NGOs made more frequent use of transformational appeals, to create emotional associations with climate actions, rather than informational appeals making specific claims about them.   Frequently they used branding to frame actions as part of a moral response to climate change, often by tapping into their own ethical credibility as communicators. These appeals rely on the public being familiar with the moral case for pro-environmental action and perceiving environmental NGOs as credible moral communicators, assumptions interviewees' responses appeared to justify. NGOs were also much more likely to suggest taking political action, including forms of activism. The effect of NGOs' greater emphasis on a moral rationale and political action was that they focused more directly on climate change as a public issue.

Government communicators framed climate action as a practical response to a practical problem, in sharp contrast to NGOs' more emotive ethical and environmental appeals. Government communicators included more negative impacts of climate change than the sample as a whole. These impacts were grounded more locally as threats to the community and/or nation. The result is a far more sober form of alarm, eschewing the spectacular threats common in NGO communications and wider public discourse. Actions, not impacts, were still the dominant theme of their messaging in line with the resolve consensus. Governments' visual representations of nature also had a local focus on landscapes. The appeal of these landscapes primarily rested not on their intrinsic natural value, but on cultural values and local place attachment and also on highlighting their potential (environmentally friendly) recreational use. These emphases on place and

community fits with national governments' and local authorities' geographical focus as public actors, as well as grounding climate change as a practical issue. In contrast to NGOs, government communicators were most likely to make informational, rather than transformational, appeals. These appeals often focused on small actions, particularly energy related ones, and how government can help people to take them. This focus on information about action was another element of government communicators' practical framing.

Political actions were very rare; suggestions for political participation were actually lower than the corporate sector. Remarkably, none of the sites suggested any form of participation in formal democratic politics. The absence of political action also reflects a wider critique that government web services in the UK have focused overwhelmingly on providing access to services online over providing opportunities for public participation (Couldry et al. 2007, p.190). Government communicators made prominent use of the term 'climate change', in contrast to other sectors where potentially controversial terms, such as 'climate change' and 'carbon', were frequently avoided. This helps illustrate the different types of consensus about climate change in public discourse. The prominent use of 'climate change' is likely the result of the UK political consensus being more explicit in stating that climate change is happening, 'we can do something about climate change, if all of us work together' (Welsh Government). In contrast the resolve consensus, although also accepting climate change is real and human caused, generally relies far more on implicit acknowledgment through less controversial terms, 'going greener together' (Vodafone) . The political consensus did not, however, make government communicators any more likely than those in other sectors to make an explicit statement about the scientific consensus. Government communicators framed climate change in terms of practical actions in local communities without giving much attention to wider questions about climate change as a public issue.

Corporate communicators focused on individual civic engagement actions, which they framed as consumer choices providing dual financial and climate benefits, a positive focus that was very common across the entire media sample. Corporate communicators (including green companies) had the greatest focus on the benefits

of action and were the least likely to show the negative impacts of climate change. They were also the most likely to make use of phrases such as 'green' or 'environment' rather than potentially controversial terms 'climate change' and 'carbon'. Visual representation in the corporate sector depicts nature as an object of human mastery; often in the context of renewable energy, tapping into positive public perceptions of renewables. Techno-optimistic repertoires were more common in the corporate sector, positioning communicators as agents of technologically driven action, 'we aim to continuously find innovative ways to reduce energy consumption' (HTC). Corporate communicators were the most likely to focus on their own environmental impacts, and the public actions they suggested were often closely related to these impacts. Mobile communicators were more focused on internal environmental performance and provided less material overall than energy companies; as a result of drawing on a more general corporate environmental responsibility discourse that was less closely tied to climate change, 'for more than 20 years, we've been working to minimise the impact our company and our products have on the environment' (Apple). This more general environmental discourse also meant mobile communicators were more likely to use transformational branding to promote themselves as environmentally virtuous, and less likely to call for audience attention to climate change as a public issue. The overall dominance of corporate communicators' positive benefits focused framing of individual civic engagement actions suggests that they represent the centre of gravity for the action discourse as a whole, probably because their far greater financial resources mean their messages are more likely to be seen.

9.2.4 Linguistic Repertoires

The study identified the main linguistic repertoires used in the media sample; each repertoire drew on specific combinations of linguistic forms and content to construct a particular framing of climate change as a public issue. The five most common repertoires in the media sample (used as the primary repertoire by at least five communicators) were all part of the resolve consensus, focusing primarily

on action rather than impacts. The differences in the constructions of climate change and the actions proposed by communicators using these five repertoires, demonstrates the substantial scope for variation within the resolve consensus. The five repertoires can be divided into three individual action repertoires and two techno-optimism repertoires.

Small actions rests on the cumulative impact of individual actions, 'small steps (…) can mean big results for Wales' Carbon Footprint' (Neath Port Talbot Council). It was found to be the dominant repertoire in public discourse by Ereaut and Segnit (2007) and was the most common repertoire in the media sample and the most familiar to the public. Two new repertoires have emerged that also place their emphasis on individual actions, *green lifestyle* and *radical action*. *Green lifestyle* focuses on promoting immediate and appealing actions, framed in terms of a wider green ethic, for example the repertoire often focuses on celebrating examples of people taking green actions that are represented as both enjoyable and producing tangible results. *Radical action* is based on personal responsibility to participate in transformative collective action, often at a local level, informed by recognition of the need for wider social change to address climate change; 'it is an initiative for and by the people of Cardiff. Its aim is to plan how we can create a positive future' (Cardiff Transition). The other two repertoires focus on technological solutions to climate change. *Establishment techno-optimism* remains a repertoire more of reassurance than action, based on sweeping claims about the positive potential of technology in general: 'at the forefront of energy research and development, production and servicing, bringing with it potentially huge economic rewards' (Anglesey Council). *Non-establishment techno-optimism* promotes specific forms of technological innovation, such as new forms of wind or wave power, as the basis for a radical (often national) plan that people can support by taking action: 'there's a lot to do; it requires fundamental changes to the way energy is generated and used in the UK' (Green Energy).

Interviewees' levels of awareness of these common repertoires varied quite widely; *small actions* was widely familiar, *green lifestyle* and *establishment techno-optimism* were at least somewhat familiar to the majority of interviewees, while

radical action and *non-establishment techno-optimism* were only familiar to small minorities. Despite these varying levels of awareness, a large majority of interviewees were able to identify both clear messages within each repertoire and differences between them. There was also substantial consistency between interviewees in the meanings, similarities and differences they identified. Interviewees rarely commented on the absence of alternative framings of climate actions from outside the resolve consensus. The resolve consensus and the action discourse as a whole were both very familiar to interviewees and the primary way they made sense of climate action.

Individual civic engagement actions were the most common form of action suggested by communicators regardless of which repertoire they used. There were, however, differences in how often other types of action were proposed. Communicators using *green lifestyle* and *radical action* were the most likely to also include collective forms of civic engagement, reflecting the more collective framing of these repertoires. Political actions were largely absent from *small actions* and *establishment techno-optimism*, with *establishment techno-optimism* communicators also being unlikely to even encourage attention to climate change as a public issue, reflecting the repertoire's message of reassurance. *Non-establishment techno-optimism* included mainly traditional forms of formal political action but was less likely to suggest activist forms; whereas *green lifestyle* and *radical action* proposed both types. *Radical action* and *non-establishment techno-optimism* are the two repertoires most focused on policy options for systemic change. *Establishment techno-optimism* and *radical action* were sufficiently different in approach that they never occurred together within the media sample. The differences in forms of public action suggested by the different repertoires, despite their common focus on individual civic engagement actions, demonstrates the breadth of positions possible within the resolve consensus.

There were some interesting differences in how interviewees assessed different repertoire's proposals for action. *Establishment techno-optimism* was largely dismissed as ineffective by interviewees; its actions were seen as lacking substance and there was also scepticism about communicators' intentions, something that

was not the case for any of the other repertoires. *Small actions* and *radical action* were both more likely to be talked about in terms of benefits to the individual taking them, rather than their efficacy as a response to climate change as a public issue. For *small actions* these individual benefits came from the savings at home associated with common sense domestic greenness, their cumulative impact on the climate was mentioned less frequently. In *radical action*, participation in local environmental actions was seen as having both personal and community benefits, but this local agency was not conceptualised as part of a larger transformation. For both *small actions* and *radical action*, what comments there were about the likely efficacy of actions as a response to climate change were mainly made by the most convinced about anthropogenic climate change, who were largely negative, seeing the actions as too small scale for the size of the problem. Actions in *green lifestyle* and *non-establishment techno-optimism*, in contrast, were mainly talked about in terms of their likely efficacy as responses to climate change. *Green lifestyle* was often well received as a positive approach that provided a bridge between individual action and policy, leading many interviewees to deliberate about the level of action required to tackle climate change. However, perceptions of how much action *green lifestyle* actually implied taking varied widely. Both the most convinced and the most doubtful interviewees criticised *green lifestyle*'s likely efficacy due to this ambiguity. *Non-establishment techno-optimism*'s national plan was generally well received as a novel, credible and potentially effective approach to climate action. However, its greater complexity meant that, with the exception of the most convinced about climate change, there was often a substantial amount of confusion about the details of this repertoire that undermined perceptions of its efficacy.

9.3 Actions in the Context of Wider Public Discourse

The action discourse found in the advertising sample was not the only discourse that interviewees drew on to talk about climate change. Three other discourses were identified, each focused on different elements of climate change, such as its

causation, and with their own sets of linguistic objects and relations between them (see table 9.1 for summary). As with the action discourse, each discourse allows for interviewees to adopt a range of different positions.

Table 9.1 Summary of Main Climate Discourses in Public Interviews

Discourse	Key Features	Media Sources identified in interviews	Interviewees Awareness
Action Discourse	Resolve Consensus that climate change is human caused and solvable by human action Dominated by common individual civic engagement actions	Advertising/PR	Large majority of interviewees
Causation Discourse	Debate about climate science in the media Scale of human consumption causes anthropogenic climate change	News and other factual media	Only more publicly connected informed group
Impacts Discourse	Focus on visually spectacular negative impacts of climate change Alarming tone	Most prominent discourse in media, seen as prototypical of news coverage	All interviewees
Action-Gap Discourse	Large and growing gap between current levels of action and level required Gap will have soon, or is already having, major negative consequences	No clear source	Large majority of interviewees

Firstly, there was a discourse about the causes of climate change, which appeared to be largely drawn from news and other factual media. Many of the features of this discourse, such as iconic examples of climate science (ice cores, international reports) and human causation (smoke stacks, deforestation) coincided with the findings of past studies of climate coverage (Lester & Cottle 2009). This discourse required little scientific understanding of the physical mechanisms causing climate change, reflecting low levels of public knowledge found by previous research (Reynolds et al. 2010). Two key features of this discourse informed interviewees' views about the causation of climate change: (i) familiarity with scientific debate in the media about causes of climate change and that the majority of scientists believe it is human caused; and (ii) awareness that the scale of consumption in modern society makes human impact on the climate at a global scale highly plausible. The informed group all structured their talk about the causation of climate change around these same two key features, with most of the variation in certainty about climate change being related to their different levels of certainty about the scientific evidence. With no alternative discourses for talking about causation emerging, the non-informed group gave much shorter answers and were much less certain about what the causes might be. Awareness in the informed group of the idea that the scale of consumption makes human impact on a global scale plausible appears to play an important role in making anthropogenic climate change seem more plausible, even amongst those who perceive levels of uncertainty about climate science to be high.

Secondly, there was a discourse about the impacts of climate change, which interviewees saw as characterised by spectacular images of the negative impacts of climate change, most commonly melting ice and extreme weather events. The impacts discourse was seen as the dominant way of representing climate change in media coverage. Interviewees identified two main peaks in coverage, the first in the late 1980s/early 1990s and the second in the late 2000s; there was perceived to be little coverage outside of these peaks. These peaks and troughs of coverage coincide with those identified in the literature and interviewees also cited many of the same media events associated with these peaks (Boykoff & Roberts 2007). The

level and content of media coverage were treated as key indicators of the importance of climate change as a public issue by a number of interviewees. This impacts discourse focuses on alarm and the gravity of climate change as a problem, in sharp contrast to the action discourse in advertising. All but the most doubtful interviewees treated the impacts represented in this discourse as credible, but many saw the media representation of them as having an exaggeratedly alarmist tone and fixation on the most visually spectacular threats, 'if it wasn't so beautiful I wonder if they would film it so much, of the ice falling' (P17, Inf, HC). Interviewees often adopted more sober forms of alarm to talk about climate impacts, of the type Ereaut and Segnit (2007) identified as increasingly replacing the alarmist repertoire. The impacts discourse was an integral part of many interviewees' understanding of climate change as a public issue because of its prominence in media coverage; the impacts themselves were largely accepted as real and worthy of alarm, but the alarmist media representations of them were treated as hyperbolic.

Thirdly, the action-gap discourse describes a substantial and growing gap between the level of action being taken to tackle climate change and the level of action required; this gap is either expected to have, or thought to already be having, significant negative impacts. The action-gap discourse was widely used in the interviews, but in contrast to the other discourses did not appear to be drawn from any obvious media sources. Two prominent features of this discourse stand in sharp contrast to key elements of the other main discourses. Firstly, the very negative appraisal of current levels of action, shared across all but the most doubtful interviewees. This negative appraisal appeared to be underpinned by a widespread perception of a need for change in how human actions impact on the environment more broadly, rather than the impact of climate change specifically. This perception appears to be similar to the implicit public consensus Fischer et al. (2012, p.167) identified, '(a) need for change (…) often taken as a given, often relatively unspecific, and neither challenged nor explained'. The wider concern that Fischer et al. (2012, pp.168-9) identified as underpinning this consensus was an assumption that current wasteful use of energy and resources at the societal level could not be good. This assumption was widely shared by interviewees regardless

of whether they felt climate change was anthropogenic, and whether or not they made normative judgments about individual's levels of energy consumption. This assumption that current levels of resource and energy use in society are bad goes beyond the widespread assumption in the action discourse that acting in a green way is good. (This widespread assumption that current societal energy use is bad does not contradict the finding that the non-informed group did not accept the global scale of consumption argument, it was the global scale the non-informed group did not find plausible, they accepted the premise that consumption could be environmentally damaging.) The action-gap discourse was remarkably widespread given that concerns about consumption are rare in media discourse and its adoption was widespread across different levels of certainty about anthropogenic climate change.

The second feature was that the gap in the action-gap discourse was explained as being the result of a significant proportion of the public being unwilling to take individual civic engagement actions, and being likely to remain so, due to disinterest and/or the difficulty of changing behaviour: 'people trying to change their behaviour is a very difficult thing to do, so umm, if they have already got in to the habit of boiling a kettle on a full jug, it, it's quite likely that they will carry on doing that' (P1, Inf, AM). This contradicts the widely familiar and accepted logic of the action discourse, particularly in both *small actions* and domestic greenness, that these actions are both easy to take and in the personal interest of the people taking them. No specific media content was cited to support this negative appraisal of public willingness to act; however, media representations of public willingness to act appear a plausible source for this perception. Individual consumer behaviour is by far the most common subject of climate polls in the UK press (Höppner 2010, p.987). These polls frequently construct very similar accounts to those given by interviewees of significant gaps between levels of public concern and action on climate change depicting the public as denying, apathetic, and hypocritical about climate change (Höppner 2010, p.994).

Many interviewees when using the action-gap discourse expressed frustration/despair and/or called for ever more alarming representations of the

impacts of climate change to shock a recalcitrant public into action, 'maybe you just, it's a big disaster, that's what you need a big disaster, then they will pay attention' (P13, Inf, HC). This is despite such calls being inconsistent with interviewees' own perceptions of alarming representations in the media as over-the-top and demotivating. This discourse taps into common negative perceptions of public willingness to act on climate change due to both selfish human nature and an increasingly individualised society (Fischer et al. 2011, pp.1028-1030). In the action discourse there are both few barriers to taking individual civic engagement actions and clear self-interested benefits from taking them, leaving few other plausible explanations for public inaction beyond selfishness and apathy.   In this context, public spirited or collectively oriented calls for public action may well seem inherently unrealistic, leading to the somewhat fatalistic tone of the action-gap discourse.

9.4 What forms do Public Connection to Climate Change Take?

Levels of wider public connection were crucial in explaining levels of public connection to climate change specifically. Only eight people had directly searched for information about climate change, with mixed results in terms of feeling they were better informed afterwards. This level of search is too low to explain the differences between the much larger informed group (15 people), who used the causation discourse, and the non-informed group who did not. The informed group's familiarity with the causation discourse appeared to be the result of reading about climate change as part of their general media usage, rather than specifically searching for it, 'you know, so just read it, but not looked for it, no' (P17, Inf, HC). This was reflected in the informed group having both higher self-reported levels of exposure to information about climate change specifically and higher levels of wider public connection, in terms of both media usage and political talk. This stronger public connection meant that the informed group were more likely to actively monitor a range of public issues through a purposeful daily news connection, 'I've set my homepage to the BBC so I see news items coming up' (P3,

Inf, HC). They were also more likely to actively seek out opportunities to talk about these issues in a deliberative way, critically developing their own opinions and understandings, 'talk about a wide range of issues, erm very important (chuckles) to the whole running of the country I guess' (P14, Inf, AM), rather than primarily treating public issues as a conversational topic of common interest, 'talk about it (terrorism) but to a limited extent. So we will all agree that it is awful but in terms of actually going into a deeper conversation about it (…) it's not that kind of culture' (P9, Non-inf, MC). This highlights the importance of a broad monitorial citizenship underpinning public connection, a level of orientation towards the public world as a whole that provides the basis for more active public engagement with specific issues when concerns arise (Schudson 1999, p.311).

The informed group gave longer explanations for their opinions on the causes of climate change, by using the causation discourse to talk about both the scientific evidence for climate change and the scale of consumption as a plausible mechanism for human causation. As a result, those in the informed group had more certain opinions one way or the other about the causes of climate change. The informed group were much more likely to conclude that climate change is anthropogenic, despite also being more familiar with sceptical arguments about climate science. Interviewees who critically considered a range of different news sources reached more definite positions on the media debate about the causes of climate change. Quality as well as quantity of public connection is important; 'news engagement integrates a positive interest in the news agenda and a literate approach to judging sources' (Couldry et al. 2007, p.160). Public understandings of climate change are formed in the context of people's wider public connection.

That strong public connection increases certainty about the causes of climate change suggests some possible links with science communication and the potential problems of motivated reasoning about the causes of climate change. Motivated reasoning can lead to polarisation in public perceptions of scientific issues along ideological lines, which increases with higher levels of science literacy (Kahan 2016). Public connection is relevant to two of the principal mechanisms of science communication that Kahan (2016) proposes: recognising expertise and social proof.

Firstly, recognition of expertise played an important part in the causation discourse. Within the informed group there was no difference in the (limited) details about climate science that interviewees who were more certain about the causes of climate change gave; what distinguished them was their greater certainty about their own ability to identify the expert consensus on climate science. The non-informed group were simply unaware of the causation discourse, leaving them unaware of any expert opinions to evaluate. This is consistent with the idea that recognising scientific expertise, rather than comprehending scientific evidence, drives science communication (Kahan 2016, p.9).

Secondly, social proof plays an important role as the words and actions of other people are much more readily available than expert opinion (Kahan 2016, p.11). The informed group believed most people they know thought climate change was anthropogenic; in contrast the non-informed group typically did not have any idea what people they know thought about climate change. This is consistent with findings that greater media use and public talk lead to more certain opinions about public issues (Wyatt et al. 2000, pp.87-8). Awareness of public debate on climate change was low in the non-informed group and even within the informed group most people were either unable to identify what the climate policies of different parties were, or unable to identify any significant differences between them. This limited evidence of an ideologically divided environment is consistent with findings that political polarisation of climate science is lower in the UK than the US (Stokes 2015). In this context, the more important limitation on social proof that climate change is anthropogenic appears to be a weak signal that climate change is an important public issue leading to low levels of public connection to climate change, rather than ideological polarisation, which would be driven by prominent political controversy about climate change. Recognising expertise and social proof both appear to play an important role in public connection to climate change, particularly in light of the central place of climate science in public discourse.

Talk about climate change was rare in everyday life for most interviewees; even the most connected to, and convinced about, climate change said they were unlikely to talk about it compared to other public issues they were concerned about, and a

substantial minority had never talked about it. When talk did occur only some types of climate actions were considered to be within conversational norms. Individual civic engagement actions were seen as an uncontroversial topic of conversation; their framing as normal domestic behaviour could be adopted by those who were uncertain or doubtful about anthropogenic climate change, or even, in two cases, by interviewees who had not associated them with climate change at all. This framing of domestic greenness reflects widespread media representations of the environment, which implicitly assume that acting in a pro-environmental way is a good thing but remain silent about why action is required (Howard-Williams 2011, p.38).

Several interviewees differentiated this type of domestic greenness talk, which was normal in their social circles, from more activist talk that was not. A specific green friend or family member was identified by several interviewees as being unusual for engaging in this type of activist talk; the pro-environmental intent of this talk was perceived positively, but this type of talk was clearly outside of their groups' social norms. Several interviewees appeared to *be* the activist friend in their social circles and often found this position uncomfortably outside of conversational norms; although they generally felt their intentions were positively received, they doubted their message was taken on board. Talk about domestic greenness involves expressions of pro-environmental intent but does not require recognition that climate change is a public issue and as a result does not address questions of why climate action is needed. This reflects the lack of a meaningful national conversation about climate change as a public issue, characterised as 'climate silence' (Rowson 2013, p.8). Talk about the common climate actions identified by this study, particularly when framed in terms of domestic greenness, is inside broadly pro-environmental conversational norms, but there remains a norm of silence around climate change as a public issue.

9.5 How are these Forms of Public Connection to Climate Change Related to Wider Forms of Public Connection?

Public connection to climate change can be situated in the context of wider concerns about public connection in the UK. There was a widespread perception that issues that were of concern to the general public did not make it on to the agenda at Westminster. Instead, Westminster politics was seen as being characterised by short-term political calculations in response to an agenda driven by the influence of financial interests and the demands of the media's news agenda. This reflects concerns in the literature about a lack of connection to a formal political system that is not relevant to people's own personal experience of the public world (Couldry et al. 2007, p.127). Climate change was thought to be unlikely to become an important issue on the political agenda due to similar factors; it conflicts with powerful financial interests, is a poor fit with the 24 hour news agenda and is too long term for politicians to address within electoral cycles. The informed group generally felt more confident in their ability to get involved in the political process, but this was counterbalanced by a greater degree of dissatisfaction with the responsiveness of the political system to public concerns than the non-informed group, leading to similar overall perceptions of political efficacy in both groups. None of the interviewees attached personal or collective responsibility to politicians for failing to act on climate change, in contrast to the way they did when talking about other public issues, perhaps reflecting that they did not perceive climate change as a live political issue.

Most interviewees had positive experiences of collective civic engagement actions (such as taking part in voluntary and charity groups and activities etcetera). These actions were taken to address a wide range of public issues of personal interest to interviewees, issues they often also talked about and followed through the media. There were very few suggestions for participation in these types of, often local, collective civic actions in the context of climate change, perhaps reflecting a lack of connection to climate change in everyday civic life as well. Interviewees often felt that in local democracy financial pressures trumped democratic input, with some suggesting that action on environmental issues was particularly affected by this

problem. In contrast to the frustrated and/or oppositional public action interviewees described for many other issues, in the case of climate change public action was often not considered as an option at all. 'Climate silence' is likely to be an important factor in this invisibility of both political and collective civic participation; participating in collective civic action creates a virtuous cycle that drives further participation. Civic talk is an important element in this cycle, not just formal deliberation, but the informal talk about issues during which people are recruited to participate and gain information about both the issue itself and ways of addressing it (Klofstad 2007, pp.187-8). There was plenty of evidence of these processes at work in the interviews in relation to other issues, but almost none for climate change. While climate change is only one issue so the levels of talk and action are not directly comparable to interviewees' civic participation as a whole; it is precisely this type of talk that is outside the conversational norm and falls within 'climate silence'.

Interviewees perceived media coverage of climate change as being alarmist in tone and as having very low prominence within the news agenda as a whole. They also felt that although most, if not all, people were aware of climate change, the lack of importance attached to it in the media was a significant factor in holding back action. Similarly, the absence of prominent media coverage of climate change was one of the most common reasons given by doubtful interviewees for feeling climate change was not a serious issue. This is consistent with findings of Brulle et al. 2012 (p.181) that levels of concern about climate change are strongly correlated with levels of mainstream media coverage. Interviewees identified the cause of these low levels of coverage as sensationalist news values driven by commercial interests distorting the news agenda; the same factors as identified in the literature (Lowe 2006, Anderson 2009). Interviewees' concerns about sensationalist coverage in this context were in direct contradiction to their advocacy, in the context of the action-gap discourse, of alarming coverage to scare an apathetic public into taking action. In the context of their own media use, however, interviewees typically described this type of alarming coverage as demotivating. This type of coverage was very similar to the type of news story interviewees said they were most likely to avoid

watching: sensational tragedies and large scale suffering in distant parts of the world that they felt unable to affect. These perceptions are consistent with findings that alarming impact focused representations of climate change undermine audience perceptions of self-efficacy (O'Neill et al. 2013, p.419). Interviewees' negative perceptions of climate coverage mirrored their concerns about the significant negative effects of sensationalist news values on both the content of the news and the relative importance attached to different issues in the news agenda as a whole. They treated these distortions as the inevitable result of either commercial pressures on news organisations and/or human nature being driven to pay attention to sensational stories. Despite this widespread dissatisfaction with the news there was little conception of any way to deal with this situation, beyond personally opting out of using mainstream news media entirely; the concept of public service requirements and the language to describe possible options were entirely absent.

Similarly, despite widespread dissatisfaction with current climate news, interviewees had few suggestions for how it could be change to address their concerns because they did not perceive the current form of news coverage as being something that could be changed. The lack of coverage of public actions was another element of media coverage of climate change that was seen as problematic by interviewees, but treated as inevitable because they felt the news does not have an advocacy role. The amount of confusion in the interviews about how, and to what extent, even the most common civic engagement actions contribute to tackling climate change suggests there is plenty of public need for, and interest in, coverage of how particular actions reduce carbon emissions (or not), and how widely they are currently adopted. What coverage there is of these actions is frequently driven by the work of NGOs pushing green lifestyles and ethical consumption into the news media, often generating positive coverage by using polling to construct public attitudes as increasingly green (Clarke et al. 2007, p.240). This is one example of how public actions can be legitimate subjects of news coverage, but there remains a lack of coverage providing an overview of how climate actions contribute to addressing climate change as a whole. It was this type

of overview and/or plan – 'we do all this in pursuit of our vision for a Green Britain – A place in which we all live more sustainable lives' (Ecotricity) – that many interviewees found novel and appealing about some of the more unfamiliar repertoires, particularly *non-establishment techno-optimism*. There is significant scope for news coverage of actions to address public interest in questions about the uptake and efficacy of climate actions without engaging in advocacy.

Two major sources of information about climate change beyond news coverage were identified by interviewees, which required different levels of public connection. Firstly, there was a perception that large amounts of good quality information about climate change were available, largely online, from specialist communicators. Only the informed group mentioned this source, suggesting a strong public connection is needed to be aware of this information. It was perceived as providing perspectives and information that would not be encountered in the mainstream media discourse, although most interviewees also said they had not explored this content in any detail. This focus on the use of the internet to access alternative content was different from how most interviewees talked about the significant and ongoing changes the internet had caused in wider mediated public connection. In the wider context they largely focused on changes to how and when they accessed content, rather than the type of content they consumed and who provided it; in most cases they were still using the same mainstream, largely legacy, news providers. This difference may reflect that accessing a wider range of information sources beyond the mainstream news media is more likely when people are specifically concerned about a particular public issue, such as climate change, rather than monitoring public issues as a whole through their regular media connection. However, in the minority of cases where interviewees talking about general public connection did mention accessing different content and providers online, the environment was the most common issue mentioned, suggesting that environmental coverage is a particular weakness of mainstream news.

The second source of information was advertising and promotional material about climate actions. These types of message were perceived to be ubiquitous and were

equally familiar to the informed and non-informed groups, as these messages featured in a wide range of media and direct marketing, bypassing the need for public connection. These messages most frequently came from energy companies and tended to focus on the most common energy related civic actions and the financial benefits of taking them. Interviewees had an overwhelmingly negative view of these messages due to: the large number they received; their extremely narrow and repetitive focus on a small number of actions; and their potential financial benefits often not being relevant to interviewees' personal circumstances, particularly if they did not own their own home. As a result many interviewees routinely ignored these messages, although they were aware of receiving them on a regular basis. This was a rare example of the power and status differentials that the action discourse almost entirely ignores in its focus on domestic actions and social norms being picked up on in the interviews. The 'we can all do our bit' rhetoric of the action discourse, and *small actions* in particular, creates a framing that excludes questions about differentiated responsibility for taking action, or past emissions. Several interviewees indicated that the focus in the action discourse on these particular energy actions assumes a level of wealth that was disconnected from their everyday life, 'bringing your homes into the 21st century, like getting all this new stuff, but people can't afford it (…) hmm, maybe some people can't even afford to put the heating on' (P20, Non-inf, MC). This was not a rejection of climate action as a luxury for wealthier people, but rather a feeling that communicators were insensitive to the realities of their lives.

9.6 Limitations

This study is quite exploratory in nature due to its focus on advertising, an element of media discourse on climate change that has received relatively little scholarly attention. There is significant scope to further develop several areas explored in this study; some of these limitations and suggestions for addressing them are explored in this section. Firstly, climate actions in this study have been analysed as public actions, but this is only one element of climate action that needs to be

integrated with other approaches to develop a full understanding of why climate actions are taken. Additionally, the focus on qualitative detail means there are limits to the representativeness of both the media and public phases of my study. The wider political context has changed significantly with Brexit since my public interviews were carried out; the implications of this are considered briefly. Finally, the study places a strong emphasis on the importance of the deliberative nature of public discourse, but due to the exploratory focus on existing public connection, the interviews gave limited opportunities for deliberation about climate change.

This study did not attempt to measure levels of climate action (either actual or self-reported). Public motivations, the focus of this study, are not sufficient for someone to take a particular climate action, and for many of the most common actions may not even be necessary. They are just one among a range of factors affecting whether or not people take a specific climate action, something that was clearly reflected in the interviews. Similarly, public advocacy of the type found in the advertising sample may well not be the most influential type of media content for the uptake of many climate actions. Consumer advertising focused on price or convenience, and making no mention of climate change, may well be more influential for many of the common individual civic engagement actions. Adding measures of public connection to representative surveys could enhance studies of the uptake of specific climate actions. The importance of these representations of climate actions as public actions lies, however, more in their role in the construction of climate change as a public issue.

The study's exploratory focus on detailed description of current discourse limits the extent to which its findings can be generalised. The media sample was constructed to reflect the breadth of representations of action within advertising, rather than their relative public visibility. The large corporate communicators' messages are likely to be seen far more frequently, particularly compared to some of the smaller green communicators. As a result, the relative prominence of the linguistic repertoires in public discourse, for example, may be quite different than the frequency with which they occurred across the advertising sample (which was perhaps reflected in the much more widely varying levels of familiarity with them

found in the interviews). It seems, however, extremely unlikely that key features such as the dominance of individual civic engagement actions and the resolve consensus, which were found in all sectors and mirrored in the interviews, are not reflected in wider public discourse. Audience diaries or constructed media samples could be used to produce a more representative picture of the action discourse, including non-advertising content. Using semi-structured interviews allowed in-depth exploration of interviewees' public connection to climate actions. Although the interviews provide a good overview, they were not intended to provide a representative sample of the public from which the prevalence of different types of public connection or understandings of climate action could be generalised. The interviewees were better educated and more publicly connected than the general population, which suggests that the informed group may well have been overrepresented. There is potential to use these findings to inform future large scale surveys and build a representative picture of public connection to climate change.

Brexit has transformed the political landscape in Wales and the UK since the media and public phases of my study were carried out. The impacts for climate policy are potentially substantial, but it is difficult to say at this stage exactly how these might affect the findings of my study. It was notable that interviewees in talking about their public connection made very little mention of the European Union and no-one mentioned the potential referendum little more than a year away at the time. This highlights some interesting parallels with my findings on climate change, particularly concerns about the quantity and quality of media coverage and public discourse about Brexit, in both the UK generally and in Wales specifically even more so (Scully 2017). While electoral results are clearly a key element of democratic legitimacy, they are not the only one, and many of the concerns centre on the extent to which the legitimising function of public opinion in relation to Brexit has been weakened by the nature of the public debate (Cushion & Lewis 2017). The lack of public talk about climate change and the narrowness of media discourse – including the limited amount of specifically Welsh media discourse – found in my study, certainly have parallels with this absence of talk about potential Brexit during

my interviews and concerns about the deliberative quality of the referendum process. The ongoing process of forming public opinion lays the ground long in advance of formal democratic decision making.

Despite the emphasis placed on the importance of deliberation, my study gave interviewees limited opportunities to deliberate about climate change. Instead, my study aimed to explore what types of civic practices interviewees were currently taking part in that might give them an opportunity to deliberate about climate change. This was a result of both the exploratory focus of the study on the state of current public discourse and the emphasis placed on the role of public visibility in forms of mediated deliberation beyond face-to-face debate. This means my study is less concerned with assessing how civic practices impact on interviewees' opinions on climate change and more with the effect of mediated communication on the quality and legitimacy of public opinions in public discourse about climate change as a whole. Using interviews means my analysis has focused on contrasting interviewees' personal accounts of their public connection, which can encourage reading public connection solely as a personal attribute, on a one-dimensional continuum, with stronger connection leading to individuals having a more informed opinion. It is, therefore, important to emphasise that the strength of public connection is also a collective property of public discourse, leading to the formation of a plurality of considered public opinions (Habermas 2006). Understanding the current state of public discourse is an important starting point for attempting to improve the quality of public deliberation. This study has highlighted significant weaknesses in public connection to climate change both in terms of media use and public talk. How to address these weaknesses is one of the major focuses of the next section on implications.

9.7 Implications

The focus of my study on advertising and public relations as less studied parts of public discourse on climate change highlighted potentially important influences on public opinion about climate change. Adopting a focus on climate actions as public

actions provided an alternative perspective on the construction of climate change; in contrast to the focus of research into belief and concern about climate change rather than actions (McCright et al. 2016, p.181). A major strength of this study is placing climate change in the context of wider public connection and in doing so exploring the detail of when and how climate change becomes a topic of public discourse. My study has argued that this production of public opinion about climate change is crucial to legitimising transition to a low carbon society, in addition to generating support for specific public actions. As a result I argue for much greater focus on the processes involved in producing public opinion, in addition to measuring current levels of public opinion. In this context, this section identifies the main implications of my study and makes suggestions for future research stemming from these.

The normative starting point of my study is that public discourse about climate change is important because it legitimises climate action through the production of public opinion via widespread public deliberation in an inclusive and transparent manner (Habermas 2006). The common climate actions, such as recycling, in this context are not just one among a range of options that the public considers in response to climate change; rather they are an integral part of the construction of climate change as a public issue. In this context, the action discourse identified in the advertising sample has some notable strengths. The action discourse was the main way interviewees talked about both their own climate actions and tackling climate change as a public issue, and was more widely known than the causation discourse about whether or not climate change is anthropogenic. The most common actions in the action discourse were not just widely familiar to interviewees, but also widely accepted as unremarkable and uncontroversial actions, in striking contrast to news coverage of climate change which has a low public profile and is often associated with potentially polarising and demotivating political controversy and alarming impacts. This reflects that the action discourse is underpinned by communicators implicit acceptance of the resolve consensus that climate change is: (i) a real problem, (ii) caused by humans and (iii) solvable by human action (Ereaut & Segnit 2007). However, the urgency and scope of the need

for climate action is often not explicitly addressed in the action discourse, there are also substantial limitations on the range of actions in this discourse and how they are talked about.

The action discourse is dominated by a few widely familiar types of domestic emissions focused individual civic engagement actions, including recycling, energy saving and transport choices. As a result interviewees lacked awareness of, and had restricted ability to describe, both: (i) other types of public action, particularly non-individual civic engagement actions, such as political actions; and (ii) policy options, such as adaptation or limiting fossil fuel extraction, which could be pursued through political action. A similar trend in the climate actions suggested by Americans between 1992 and 2009 found recycling and energy saving had seen the greatest increase and political actions had dropped most substantially (Reynolds et al. 2010, p.1531). This reflects concerns about communications processes depoliticising climate change and the need for research to reflect their potential importance as modes of political engagement (Carvalho et al. 2016). The action discourse has contributed to the increased public visibility of actions that were previously considered private behaviours, but their widespread framing as unremarkable and uncontroversial reflects that the action discourse rarely offers any explicit justification for why its emphasis on individual civic engagement, in the form of domestic emission reductions, is the best approach to climate action. This was reflected in the frequent uncertainty among interviewees about how and why even these common actions actually contributed to reducing climate change. The narrow focus of the action discourse not only depoliticises climate change but also de-emphasises the importance of public motivations for actions more generally. While public motivations to tackle climate change are rarely an important factor in whether or not people take these most common actions (e.g., recycling); they are far more impactful for other climate actions and policy support (Steg & Vlek 2009, p.311).

This section includes a mix of recommendations relating to both further academic research and more practical implications relating to the media. This overlap reflects the normative commitment of my study to deliberative democracy; in this context I

see academia and the media having similar roles in enhancing the quality of public discourse, informed by engaging with the public so that this role is informed by public interests and concerns. Of course both academia and media also have other very different functions and agendas, but they are both key parts of the health of public discourse which is the focus of my study. The first set of implications relate to the action discourse and how climate actions are legitimised through public discourse more widely:

More diverse media coverage of climate actions informed by public interest.
More news and/or factual coverage of climate actions was a common desire of interviewees but they frequently dismissed increased coverage on the basis that the news should not engage in advocacy for public actions. However, there are a number of ways that climate actions could be covered without engaging in advocacy. Examples of how the action discourse has been drawn into news and factual programming through the integration of green lifestyle content have been the subject of study (for example Lewis 2008, 2012, Craig 2016). This content, however, often retains the action discourse framing of climate actions that rarely addresses their efficacy as public actions. Media coverage could address public interest in climate action including: (i) the efficacy of common climate actions, (ii) providing information about a wider range of climate actions, (iii) levels of uptake of these actions and their wider social implications, (iv) and placing actions in the context of trends in climate emissions as a whole. Research could address how to effectively communicate this information in similar ways to how different framings of climate science or impacts in news coverage have been explored (for example Kahan et al. 2010, O'Neill et al. 2013). Research about communicating this type of contextual information about climate actions would also be relevant to many other communicators given its absence from the action discourse and public interest in it. Importantly, research should involve the public in deliberating about what type of information about climate actions is in the public interest, which could inform the direction of both this research and media coverage of climate actions. Media and academic research can play an important role in helping to encourage and improve public discourse about climate actions, without advocating for specific actions.

Encourage deliberation about public actions and their efficacy. In addition to more coverage of climate actions, people also need the opportunity for meaningful deliberation about what actions to take. In particular, engaging with questions about climate actions efficacy as public actions – such as how actions actually reduce climate change, how actions' impacts compare to other actions and the overall levels of emissions – questions that were largely absent from both the media sample, and interviewees' experience of public discourse, which was focused on domestic benefits of climate actions. Repoliticisation of climate change, deliberating about power structures and the possibility of systemic change (Carvalho et al. 2016) is a vital element of this deliberation, including greater prominence for political actions in public discourse and making climate change a 'live' political issue (discussed below). It is also important to recognise that deliberation about efficacy is also relevant to civic actions, which do not directly attempt to influence power structures, as well. The limitations of the focus of the action discourse on the common civic emissions reduction actions is not just that it excludes political actions, but also that it rarely places these actions in their wider public context making it difficult for the public to judge their efficacy. In this context, there were substantial variations in the extent to which the linguistic repertoires prompted interviewees to talk about the potential efficacy of climate actions. *Green lifestyle* and *non-establishment techno-optimism* both encouraged far more engagement with climate actions as part of a larger public response to climate change. It was also notable that a focus on local action, particularly in the *radical action* repertoire, was effective in engaging the non-informed group with climate change as a public issue. The language of collective civic purpose which many interviewees used to describe their own wider civic participation in terms of public goals was largely absent from the action discourse, taking climate action was very rarely described as a contribution to public life more generally. Further exploration of these trends could help to develop representations and framings of climate action which engage the public with these wider questions of public efficacy.

Dominance of corporate communicators and the publicity function. Corporate communicators are the most influential voices in the action discourse, reflecting their greater public visibility, and this underpins the dominance of individual civic engagement actions. There is a strong public expectation that organisations should participate in the action discourse – operating within the resolve consensus – or they will incur public disapproval. However, companies were still able, within the resolve consensus, to produce advertising which advocates actions that fit with both their own interests and the wider model of consumer capitalism, for example, strongly favouring purchasing green products over reducing overall consumption. As a result, public advocacy based on the resolve consensus still faces twin challenges of (i) suppression of debate (notably about whether domestic emissions based individual civic engagement actions are the best approach to climate action) and (ii) the potential for greenwash to obscure the relative efficacy of different actions (Ereaut & Segnit 2007, p.37). This appears to bear out concerns about advertising and PR undermining the normative ideal of public discourse by prioritising the pursuit of strategic priorities (Greenberg 2011). While government and NGO communicators offered some distinctly different framings of climate action, *these were marginalised by the dominance of corporate framings and largely unfamiliar to the interviewees*. As a result advertising and PR also appear to be failing to deliver the potential benefits of their advocacy role in bringing multiple voices into public discourse (Sommerfeldt 2013).

Research into the production of the action discourse. The action discourse underwent a rapid change in the late 2000s including the adoption of the resolve consensus (Ereaut & Segnit 2007, p.6), marked by highly visible public events both cultural (for example, *An Inconvenient Truth*) and political (a series of major reports and the UK Climate Change Act leading towards the Copenhagen Summit), as corporate communicators responded to the increased visibility of climate change in public discourse (Svoboda 2011). That my study found the action discourse has subsequently remained stable around the resolve consensus also requires explanation. Research could look at the production of messages in the action discourse, including changes over time, in similar ways as have been done for news

coverage. The sources and careers of claims in the action discourse could be tracked, particularly with a view towards the ways in which they claim legitimacy and invoke action (Hansen 2011). This could include interviews or ethnographies with message producers in the action discourse (something that was initially considered for this study if resources had allowed) to explore the practices and power relations informing the production of this discourse.

The role of the action discourse in legitimising climate actions has to be situated in the context of the wider restrictions on public talk about climate change that my study identified. The action discourse plays an important role in defining these narrow acceptable limits of public talk, or 'climate silence' (Rowson 2013). The importance of wider public connection to how the public connects to climate change specifically is one of the key implications of this study. Levels of direct search for climate content were too low to explain the differences between the informed and non-informed groups; levels of wider media connection and public talk were far more influential. The informed group largely did not seek out climate content but became aware of climate change as a public issue through their public connection, raising their level of concern. For the more weakly connected non-informed group, current low levels of media coverage contributed to the visibility of climate change as a public issue being too low to gain their attention. As a result the non-informed group were far less certain about the central question in current public discourse of human causation of climate change because they lacked familiarity with the causation discourse to inform their talk. The second set of implications focus on the role of public connection in legitimising public discourse about climate actions:

Strengthen public service climate content. The limited quantity of news coverage and its emphasis on the sensational and alarm focused impacts discourse were widely cited by interviewees as limiting public concern and action on climate change, reflecting the findings of the literature (Boykoff & Roberts 2007, Gavin 2009). These concerns can also be situated in relation to interviewees' concerns about similar distortions of wider news coverage by the current model of commercial news and the absence of a broader public debate about how to address

them. A related concern was the extent to which news coverage of politics is tied up in a style of politics that many interviewees found disconnected from their experience of public life; one that favours style over substance and is more concerned with securing media visibility and conflict than solving public issues. Civic journalism approaches that seek to step away from these elite framings of politics and start from investigating what the public's concerns are and how to enhance the quality of public discourse about them (Rosen 2011), might address some of these issues. Research contributing to starting wider public debate about strengthened public service news requirements – particularly in the context of shifting patterns of digital media usage evident in the interviews – could also help to generate more climate content in response to public interest. Research could also provide guidance, including for non-news communicators like those in the media sample, about designing this type of content in ways that fit with both public interest and the requirements of climate communicators. This could help to address the limited amounts of contextual information about the causes of climate change my study found in the advertising sample.

The role of consumption and consumerism. That the global scale of human consumption makes anthropogenic climate change a credible idea was a key element of the causation discourse and had striking effects on the informed group's certainty about anthropogenic climate change. There is scope for further investigation of whether communicating messages about the scale of consumption effectively may increase certainty about anthropogenic climate change, particularly in the non-informed group. This could involve both looking at how to overcome the weaknesses in public connection – which resulted in the non-informed group not being aware of this message – and how best to communicate it effectively (perhaps avoiding overly negative framings, which might demotivate or threaten, by placing the emphasis on plausibility rather than responsibility). Consumption and consumerism more generally were key legitimising themes running through the interviews, but had *a peripheral place in both the advertising sample and interviewees' perceptions of media content more widely.* A widespread perception of a need for climate actions in the action-gap discourse appeared to reflect

common, less climate change specific, views about both the desirability of renewable energy and the need to reduce human environmental impacts. These concerns about environmental impacts overlapped with ideas about frugality, avoiding waste and generally favourable attitudes towards 'being green', but did not address the overall global scale of consumption. The widespread use of the action-gap discourse and the central role of these ideas around consumption highlight a major divergence between media discourses and wider public discourse about climate change. Consumption was framed in a number of different ways that could be explored further; particular features of interest might be (i) whether consumerism was talked about at the personal level, which often led to moral judgements, (ii) the extent to which systemic factors were considered.

Climate change as a 'live' issue and the political consensus. The informed group were aware of at least some policy options to tackle climate change, unlike the non-informed group. Both groups, however, despite their different levels of knowledge about policy options, placed significant responsibility for climate action on government. However, climate change did not appear to be seen as a 'live' political issue; neither group attached any responsibility for failing to act to current politicians or raised concerns about the potential efficacy of political actions, which were both common responses to other public issues. In this context, the very low awareness of the UK political consensus on climate change suggests that this consensus may be contributing to 'climate silence' rather than encouraging political action. This is not because consensus is intrinsically depoliticising, but because the consensus seems to largely function as a rhetorical acknowledgement that climate action is necessary, rather than as a commitment to public deliberation about what kind of climate action to take (The political consensus is stronger than the resolve consensus in the action discourse which does not even require this explicit acknowledgment, just non-contradiction of the need for action). It was this type of deliberation about climate actions in the context of larger public goals that appeared to lead to the few instances of engagement with UK climate politics in the interviews: support for the Green Party and Scottish independence; and discussing the efficacy of the national plan proposed by *non-establishment techno-optimism*.

It may be that another campaign similar to 'The Big Ask' which played a large role in the adoption of the Climate Change Act 2008 (Carter & Childs 2017) could help to further strengthen the political consensus to address these issues. However, it was clear that most people already recognise government responsibility for climate action. Far more influential is the lack of ideas about how this responsibility might be realised, due to the lack of public deliberation about it. Many of the other recommendations in this section could help to contribute by strengthening wider public deliberation, which formal political debate is only one part of.

Public agenda setting. The dominance of individual domestic emissions reduction actions in the action discourse may also contribute to 'climate silence' by constraining the discussion of climate actions in public discourse. Claims of policy relevance – by researchers or communicators – to justify focusing on these actions rest largely on elite political actors' definitions; how and why the wider public does (or might if asked) answer questions of policy relevance is largely unknown. As a result, the focus on these most common actions rests on premises that are not politically neutral. Domestic carbon consumption generates 55% of emissions (Preston et al. 2013) – a substantial proportion – but the responsibility for these emissions could be framed in other ways, for example in terms of production, and it leaves unaddressed the remaining 45% of emissions. There are also questions about how effective these common actions are as methods of reducing domestic carbon emissions, particularly in light of evidence that more affluent people both take more of these actions and still have higher carbon emissions (Huddart Kennedy et al. 2015). More public involvement in setting this research agenda could help to open up questions about a wider range of actions. Similarly media coverage of climate change could be guided by greater public involvement in setting the news agenda, potentially shifting away from the political agendas of elite politicians through which much news coverage of climate change is framed (Carvalho & Burgess 2005). This would need to be an ongoing deliberative process, as immediate public responses to questions of this type are likely to reflect the focus of current public discourse.

Understanding public opinion in the context of public connection. Public opinion formed in the context of 'climate silence' is based on limited opportunities for deliberation, so potentially involves high levels of ambiguity and contingency. For example, my study found widely varying opinions on the causes of climate change within those who selected a mix of human and natural causes, with positions ranging from strong statements about anthropogenic causation to high levels of scepticism about the need for action, and also substantial variations in levels of engagement with climate change as a public issue. It is important to recognise that public opinion is a snapshot of the current state of public discourse about climate change, rather than a measurement of people's settled positions. The weakness of public connection to climate change and limited range of civic practices supporting this connection are central elements of 'climate silence'. My findings also reinforce concerns about public connection and democracy more widely (Couldry et al. 2007). The same concerns about the influence of money and unresponsiveness to public concerns were widespread in relation to both climate change specifically and the UK democratic system as a whole. The lack of opportunities for meaningful deliberation appeared particularly severe in the case of climate change. The legitimacy of public opinion cannot rest solely on measurement through polling; the way public opinion is formed through public discourse is also crucial to its legitimacy so research needs to examine the civic practices that constitute public connection.

Public visibility and 'climate silence'. In terms of the levels of effort or competence required from individual citizens, the limited differences between the informed and non-informed groups are quite encouraging. Effective climate action does not require a society of expert environmentalists who go out of their way to search for specialist information about climate change. It does require a public engaged with monitoring public life and alert to signals that climate change is an important issue (Schudson 1999). Not just a narrow monitoring for issues that may be bad for them personally, but monitoring informed by the type of commitment to public life that underpinned most interviewees' public connection. Crucially it also requires a public discourse that makes this type of engagement possible by sending strong

signals about the importance of public issues such as climate change. Personal connection (even when informed by a strong personal commitment to wider public interest), can only go so far, strong public discourse is what makes citizens. Lack of meaningful opportunities for engagement and related perceptions of a lack of efficacy appeared to play a far greater role in disconnection than a lack of motivation to be involved in public life. Exploring types of public visibility which might increase the quality and quantity of meaningful deliberation about climate change is one potential way to address 'climate silence'. Organised deliberative processes have been demonstrated to shift participants' views on climate change (Hobson & Niemeyer 2011).   Similarly, it has been demonstrated that the public are capable, given the right opportunities through such processes, of high quality deliberation despite having little familiarity with the technical detail of complex topics such as climate change (Pidgeon et al. 2014). While issues of scale restrict mass participation in this type of deliberation process, there is potential to increase the wider legitimacy of such deliberative events by raising their public visibility through media coverage and elite political participation (Van Reybrouck 2016). The potential of such events is perhaps greatest in breaking the governance trap, where both government and public fail to fully commit to action (Pidgeon 2012, p.S89), by creating opportunities for politicians and public to acknowledge and debate their different responsibilities to act. More generally, increasing the visibility of public views about climate actions could broaden the public discourse and open up space for deliberation; there is evidence that 'climate silence' contributes to people underestimating levels of public concern about climate change, creating a vicious cycle of self-silencing (Geiger & Swim 2016). Greater visibility of a range of public voices discussing and advocating climate actions might help both to break the grip on public discourse of the most common individual civic engagement actions and to move away from representations of public opinion as responding (or in the case of representations of an apathetic and hypocritical public, failing to respond) to an elite agenda.

9.8 Conclusions

My study has identified a discourse about climate actions that in contrast to discourses about the impacts and causation of climate change, which have received more research attention, is not characterised by spectacular disasters or political controversy, but instead frames widely publicly familiar individual emission reduction actions as unremarkable and uncontroversial. This action discourse dominated the advertising material and much of interviewees' limited public talk about climate actions. In doing so it defines the limits of much of public discourse about climate change, beyond which is found 'climate silence'. This 'climate silence' reflects both this narrow focus on a limited range of public actions and the low profile of climate change on the wider public agenda. Given the importance of public discourse in legitimising public actions and the transition to a low carbon society, my study has highlighted the importance of strengthening the quality and quantity of public discourse about climate change and suggested a number of ways in which this might be achieved.

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Appendix 3.1   **Information Sheet for Public Phase Interviewees**

School of Psychology, Cardiff University
Information for participants

Study Description and Research Aims

The project is being undertaken by Daniel Wheelock, a postgraduate student at Cardiff University. The study explores people's interest in public issues and how this relates to their use of media (television, radio, internet etc.). The aim of this research is to explore when and why people take action on public issues and the role that the media plays in this process.

What your participation will involve?

If you decide to take part your participation will involve completing the brief questionnaire and a 1.5 hour interview at a time to suit you. The interview requires no prior preparation or knowledge. The interview will explore your current interest in public issues and your media use and will also involve you being asked to comment on some quotes and images from the media about this issue provided by the researcher. You will be paid an honorarium of £9 to thank you for your participation plus travel expenses of £2.50.

The interview will be conducted face-to-face, and with your permission will be audio recorded. If you change your mind about taking part in the research you can withdraw at any time by contacting the researcher on the details provided below. You may also withdraw in person during the interview or at any other time, up until the point that the data is fully anonymised.

Who is being interviewed?

The researcher intends to interview men and women living in Wales, across a range of different backgrounds and ages.

Anonymity and confidentiality

All data will remain confidential in accordance with British Psychological Society (BPS) 'Ethical principles for conducting research on human participants'. Audio recordings will be stored in a locked location at Cardiff University. When the recordings are transcribed the data will be anonymised, within a maximum of three months after the interview, so we can't identify you from what you said. The anonymised data will be kept indefinitely.

Who will have access to the data?

The audio recordings, transcripts and diagrams will be shared among the researcher and supervisory team. Participants may ask to see their data or request that it be destroyed at any time, up until the date that the data is anonymised.

How will the data be used?

The data will be used in academic research and will be used to produce reports, presentations, conference papers, and academic publications. The data and/or subsequent publications may also be used for teaching purposes.

Who is funding the research?

The research is self-funded by the researcher

The Research Team

Principal Researcher: Postgraduate Student Daniel Wheelock (WheelockD@cardiff.ac.uk)

Supervisors: Professor Justin Lewis (LewisJ2@cardiff.ac.uk) and Dr Lorraine Whitmarsh (WhitmarshLE@cardiff.ac.uk)

Contact:

Daniel Wheelock (postgraduate student), 51A, Park Place, School of Psychology, Cardiff University, CF10 3AT   Tel: 02920 870837

Appendix 3.2 Public Phase Questionnaire

Pre-Interview Questionnaire

Cardiff University
School of Psychology
Understanding Risk Group
51A Park Place
Cardiff
CF10 3AT

02920 870837

Thank you for your interest in this study. Please fill in this questionnaire and return it to Daniel Wheelock.

Filling in this questionnaire will give me some basic information about your current interest in public issues and media use, which will be explored further in the interview.

To what extent do you agree with each of the following statements? (Please select one box per row)

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1. Being involved in my neighbourhood is important to me	☐	☐	☐	☐	☐
2. I often talk with other people about political issues that are important to me	☐	☐	☐	☐	☐
3. I don't get involved in political protests	☐	☐	☐	☐	☐
4. People who know me expect me to know what is going on in the world	☐	☐	☐	☐	☐
5. Politics has little connection to my life	☐	☐	☐	☐	☐
6. I have a pretty good understanding of the main issues facing our country	☐	☐	☐	☐	☐
7. I feel that I can influence decisions in my area	☐	☐	☐	☐	☐
8. Sometimes I feel strongly about an issue, but don't know what to do about it	☐	☐	☐	☐	☐
9. I trust politicians to deal with the things that matter	☐	☐	☐	☐	☐

In a normal day, on average, how many hours do you spend doing each of the following? (Please select one box per row)

	None	Less than 30 minutes	30 minutes –less than 1 hour	1hour – less than 3 hours	3hours – less than 6 hours	6 hours or more
10. Watching Television	☐	☐	☐	☐	☐	☐
11. Listening to the Radio	☐	☐	☐	☐	☐	☐
12. Reading the Newspaper	☐	☐	☐	☐	☐	☐
13. Using the internet (not for work)	☐	☐	☐	☐	☐	☐
14. Using social media	☐	☐	☐	☐	☐	☐

To what extent do you agree with each of the following statements (Please select one box per row)?

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
15. I trust the media to cover the things that matter to me	☐	☐	☐	☐	☐
16. I generally compare the news on different channels, newspapers or websites	☐	☐	☐	☐	☐
17. If I am concerned about an issue I try to find out more about it through the media	☐	☐	☐	☐	☐

How often do you usually do any of the following (Please select one box per row)?

	Never	Less than once a week	Once a week	Two or three times a week	Four or more times a week
18. Read a local newspaper	☐	☐	☐	☐	☐
19. Read a national newspaper	☐	☐	☐	☐	☐
20. Listen to the radio news	☐	☐	☐	☐	☐

	Never	Less than once a week	Once a week	Two or three times a week	Four or more times a week
21. Watch the television news	☐	☐	☐	☐	☐
22. Go onto the internet for news	☐	☐	☐	☐	☐

Now so we can compare the views of different people, please tell us a bit more about yourself (Please select one box per question).

23. Age	18-24	25-34	35-44	45-54	55-64	65+	Prefer not to say
	☐	☐	☐	☐	☐	☐	☐

24. I identify my gender as [ ] [ ] ☐ Prefer not to say

25. Highest level of qualification	No formal qualification	GCSE/O Level	A Level/ BTEC	Vocational/ NVQ
	☐	☐	☐	☐
	Degree or equivalent	Postgraduate	Other	Prefer not to say
	☐	☐	☐	☐

26. Annual household income (before tax)	Up to £9 999	£10 000-19 999	£20 000-29 999	£30 000-39 999
	☐	☐	☐	☐
	£40 000-49 999	£50 000-74 999	£75 000 or more	Prefer not to say
	☐	☐	☐	☐

27. Where you live	City	Town	Village or hamlet	Prefer not to say
	☐	☐	☐	☐

28. Which political party do you most closely identify with?	Conservative	Green	Labour	Liberal Democrat	Plaid Cymru
	☐	☐	☐	☐	☐
	UKIP	Other	None	Do not vote	Prefer not to say
	☐	☐	☐	☐	☐

Now we would like to know more about your views on climate change (Please select one box per question).

29. Which of the following best describes your views on the causes of climate change?	Mainly human activity	Mainly natural processes	Natural processes and human activity
	☐	☐	☐
	Don't know cause	Not sure if climate change is happening	Climate change is not happening
	☐	☐	☐

	Very Important	Quite Important	Not very Important	Not at all Important
30. How important an issue is climate change?	☐	☐	☐	☐

	A lot	A fair amount	A little	Nothing
31. How much have you heard about climate change?	☐	☐	☐	☐

Appendix 3.3 Public Phase Interviewee Debriefing Sheet

School of Psychology, Cardiff University
Thanks and Debrief

Thank you for taking part today. The information you have provided today will be used in a PhD study into how people understand climate change as an issue for public action and the role that media plays in this understanding. The aim of this research is to explore when and why members of the public consider taking actions to tackle climate change, and the role media messages about climate actions play in this. The specific topic of climate change was not mentioned until the second part of the interview in order to avoid any influence on your answers. The aim of the first part of the interview was to build up a picture of people's interests in public issues and media use overall, providing a comparison for the same issues relating to climate change specifically during the second part of the interview.

You have the right to access the information you have given, up until the point that it has been anonymised. You can also ask for the information you have given to be deleted up until the point that it has been anonymised.

In case of any queries or complaints, or if you would like to learn more about the project, please do not hesitate to contact us via the details below.

Thanks again for your time.

Daniel Wheelock

Contact Details		
Daniel Wheelock (postgraduate)	Dr. Lorraine Whitmarsh (supervisor)	Psychology Ethics Committee Secretary
Understanding Risk Group	School of Psychology	School of Psychology
51A Park Place	Cardiff University	Cardiff University
School of Psychology	Tower Building	Tower Building
Cardiff University	Park Place	Park Place
Cardiff	Cardiff	Cardiff
CF10 3AT	CF10 3AT	CF10 3AT
Email: WheelockD@Cardiff.ac.uk Phone: 02920 870837	Email:WhitmarshLE@Cardiff.ac.uk Phone: 02920 876972	Email: psychethics@cf.ac.uk Phone: 02920 874007

Appendix 3.4 Public Phase Consent Form

School of Psychology, Cardiff University
Consent Form - Confidential data

I understand that my participation in this project will involve taking part in an interview session that will take approximately an hour and a half. I understand that I will be paid an honorarium of £9 to thank me for my time.

I understand that participation in this study is entirely voluntary and that I can withdraw from the study at any time (up until the data is anonymised) without giving a reason.

I understand that I am free to ask any questions at any time. I am free to withdraw or discuss my concerns with Daniel Wheelock.

I understand that the information provided by me will be held confidentially, such that only the researcher (Daniel Wheelock) and the supervisory team (Professor Justin Lewis and Dr Lorraine Whitmarsh) can trace this information back to me individually. My real name will not be used in any subsequent reports or publications, and any quotations will be attributed to an alias using only generic identifying features (e.g., age, gender). I understand that I can ask for the information I provide to be deleted/destroyed at any time up until the point that it is anonymised and I can have access to the information at any time until it is anonymised.

I understand that the anonymised data will be kept indefinitely and used for academic publications and presentations, and for teaching purposes.

I have been provided with sufficient information on the project to give informed consent to the interview session.

I, (PRINT NAME)_____ consent to participate in the study conducted by School of Psychology, Cardiff University with the supervision of Dr Lorraine Whitmarsh.

Signed:_____
Date:_____

Appendix 3.5   Public Phase Outline Interview Protocol

Part 1 Broader Public Connection

Important to get a sense of interviewers broader connection to public discourse, in order to place connection to climate change specifically in context.

1.1 Public Connection
Refer back to answers given to questions (g-i) during this part of interview.

- What issues are you interested in or concerned about at the moment? Can you tell me a bit about it and why it's important to you? (Interested in what factors make issue salient for interviewee, potential follow ups include distance, whether issue is local or global, and comparison to types of issue that not interested in or avoid)
- Where do you find out about this issue? Do you talk with anyone else about this issue? (Who, where when, why?) Have you ever taken action on this issue? (What, why/why not, did it make a difference?)
- Do you feel that if people are concerned about an issue they can make a difference? (Why, how?) Do you feel confident that if you wanted to get involved in a public issue that you would know what to do? (Prompt on knowledge and perceptions of public processes)

1.2 Media Connection
Refer back to answers given to questions (j-l) during this part of interview.

- Looking at the media types from question j, can you tell me a bit about what you watch/read and why (why not, including examples of what avoid)? Do you talk about this with other people? (Who, where when, why?)
- Repeat questions for news specifically: Can you tell me about which types of news you watch/read/listen to and why (why not, including examples of what avoid)? Do you talk about the news with other people? (Who, where when, why?)
- Thinking about issue x that you mentioned before was it something that you followed in the media? What did you think of the coverage? (Any specific examples?)

Part 2 Climate Connection

Introduce that climate change the topic.

Climate change attitudes and perceptions

a) Causes of climate change (mainly natural processes, mainly human activity, natural processes and human activity, no such thing as climate change, don't know cause, not sure if happening).

b) How important an issue is climate change (1 not at all important – 5 very important)

c) How much would you say you have heard about climate change? (1 not much at all – 5 a lot)

2.1 Actions

Want to get idea of what actions come to mind spontaneously and perceptions of these.

- What kind of actions can be taken to reduce climate change? (Not specifying by who, if ask then say could be anyone). Follow up by asking how they would work? What would be the main advantages and drawbacks? How likely that will actually happen?
- Who has responsibility for taking action on climate change? (and who doesn't?) Why?

2.2 Your Actions

- Can you tell me about any actions you have taken that would reduce climate change? Why choose to take action? (Explore other non-climate motivations) How did you find out about the action?
- Can you tell me about any actions to reduce climate change that you have decided not to take? Why? How find about it?

2.3 Connection

- Is climate change something that people you know are interested in? (Who is and who isn't?) What sort of actions do they take? Have you had any conversations about climate change with them?
- Can you find out what you want to know about climate change? (What, where?) Have you ever looked for information about climate change in the past? (What, where, successful?)

2.4 Media connection

- How often do you see things about climate change in the media? (Where? When?) Can you tell me about any particular examples? Recently? Memorable? Something that made you take action (or stopped you taking action)?
- Do you ever look for certain types of information about climate change in the media? Or avoid it?

2.5 Media messages

- What sort of things would you expect to see/hear in a media message about climate change? (Type of message (news, advert etc.), who communicator is, type of media, typical framing/narrative, common content). Probe these through laddering.
- Using sheets of repertoires from media sample, explaining each sheet represents a different approach to taking action on climate change. What do you like about each sheet? What don't you like? How would you describe each of these approaches overall and how convincing do you find them? How would you group them in terms of being similar or dissimilar?

2.6 Perceptions of coverage

- How do you rate media coverage of climate change? (Quantity, quality, range of perspectives, accuracy, trust?)
- To what extent is there useful information in the media about how to take action on climate change? (Should it? What more could it do?)

Appendix 4.1 Media Phase Results Tables

Sector \ Averages	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Word Count	4 086	11 484	8 815	10 871	9 019
Page Count	10.9	25.5	27.9	20.5	21.0
Video Length	6:12	12:47	6:52	12:07	9:59
Video Count	1.7	6.4	5.7	4.0	4.5

Climate Section Prominence	Mobile (14)	Energy (19)	Govern ment (9)	NGO (13)	Total (55)
Integral to front page	14%	37%	33%	69%	38%
Link in main front page menu	29%	47%	0%	8%	25%
Link on secondary menu	7%	16%	0%	0%	7%
2 clicks from secondary menu	36%	0%	44%	23%	22%
3 or more clicks from secondary menu	14%	0%	22%	0%	7%

Home Page Prominence	Mobile (14)	Energy (19)	Govern ment (9)	NGO (13)	Total (55)
Integral	29%	47%	11%	69%	42%
2 or more in primary menu	14%	26%	11%	0%	15%
1 in primary menu	7%	26%	56%	8%	22%
2 or more in secondary menu(s)	7%	0%	0%	15%	5%
1 in secondary menu	14%	0%	11%	0%	5%
None	29%	0%	11%	8%	11%

Campaign Objective	Mobile (14)	Energy (19)	Govern ment (9)	NGO (13)	Total (55)
Promotion of Specific Product, Service or Policy	36%	58%	56%	38%	47%
Promotion of Corporate Image	57%	0%	0%	0%	15%
Influence Behaviour/Actions	7%	42%	44%	54%	36%
Enlist Direct Support for Communicator	0%	0%	0%	8%	2%

Advertising Appeal Type	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Informational - Comparative	0%	0%	0%	0%	0%
Informational - Unique Selling Proposition	7%	11%	11%	8%	9%
Informational - Testable	29%	0%	33%	0%	13%
Informational - Hyperbole	7%	0%	0%	0%	2%
Informational - Generic	0%	37%	33%	15%	22%
Informational – Subtotal	*43%*	*48%*	*77%*	*23%*	*46%*
Transformational - User Image	14%	5%	0%	15%	9%
Transformational - Use Occasion	0%	5%	11%	8%	5%
Transformational - Brand Image	43%	42%	11%	46%	38%
Transformational -Generic	0%	0%	0%	8%	2%
Transformational - Subtotal	*57%*	*52%*	*22%*	*77%*	*54%*

Public Action Type	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Political Participation - Formal - Individual	7%	21%	0%	54%	22%
Political Participation - Formal - Collective	21%	11%	0%	31%	16%
Political Participation - Activism- Individual	7%	16%	11%	38%	18%
Political Participation - Activism - Collective	14%	11%	11%	54%	22%
Civic Participation - Engagement - Individual	93%	100%	78%	85%	91%
Civic Participation - Engagement - Collective	7%	47%	56%	69%	44%
Civic Participation - Attention - Individual	29%	68%	67%	62%	56%
Civic Participation - Attention - Collective	14%	37%	67%	69%	44%

Individual Civic Engagement Action Type	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Regular Energy/Water Conservation	64%	89%	89%	62%	76%
One-off Energy/Water Conservation	0%	95%	100%	69%	65%
Recycling/Waste Reduction	93%	37%	78%	54%	62%
Eco-shopping/Eating	57%	42%	56%	62%	53%
Personal Transport	14%	32%	56%	69%	40%
Indirect Behaviour	21%	32%	22%	69%	36%
Eco driving	0%	5%	22%	38%	15%

Primary Civic Engagement Individual Action Type	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Regular Energy/Water Conservation	7%	37%	22%	0%	18%
One-off Energy/Water Conservation	0%	47%	44%	31%	31%
Recycling/Waste Reduction	43%	0%	11%	8%	15%
Eco-shopping/Eating	43%	0%	11%	23%	18%
Personal Transport	0%	0%	0%	0%	0%
Indirect Behaviour	7%	16%	11%	38%	18%
Eco driving	0%	0%	0%	0%	0%

Policy Suggestion Type	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Supportive	36%	74%	67%	85%	65%
Restrictions	43%	21%	33%	46%	35%

Action Beneficiaries	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Individual	86%	100%	78%	85%	89%
Family	0%	42%	33%	38%	29%
Community	29%	58%	89%	69%	58%
Nation	0%	74%	67%	77%	55%
Developing World	36%	11%	11%	54%	27%
Humanity	14%	5%	0%	46%	16%
Non-human Nature	29%	21%	11%	46%	27%
Environment (generic)	100%	53%	56%	100%	76%
Other	7%	11%	11%	0%	7%
None	0%	0%	0%	0%	0%

Primary Action Beneficiaries	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Individual	21%	58%	33%	23%	36%
Family	0%	11%	0%	0%	4%
Community	14%	16%	44%	31%	24%
Nation	0%	16%	11%	8%	9%
Developing World	7%	0%	0%	0%	2%
Humanity	7%	0%	0%	8%	4%
Non-human Nature	7%	0%	0%	15%	5%
Environment (generic)	43%	0%	11%	8%	15%
Other	0%	0%	0%	8%	2%
None	0%	0%	0%	0%	0%

Action Benefit Types	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Financial	64%	95%	89%	92%	85%
Climate	71%	84%	78%	100%	84%
Environmental	100%	68%	44%	77%	75%
Moral	79%	74%	56%	77%	73%
Societal	50%	58%	89%	54%	60%
Health	36%	42%	67%	77%	53%
Security	14%	58%	33%	62%	44%
Other	0%	53%	22%	0%	22%
None	0%	0%	0%	0%	0%

Primary Action Benefit Types	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Financial	7%	26%	33%	15%	20%
Climate	14%	37%	22%	23%	25%
Environmental	36%	11%	11%	8%	16%
Moral	29%	0%	11%	46%	20%
Social	14%	11%	22%	8%	13%
Health	0%	0%	0%	0%	0%
Security	0%	0%	0%	0%	0%
Other	0%	16%	0%	0%	5%
None	0%	0%	0%	0%	0%

Inaction Consequences	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Individual	7%	0%	0%	8%	4%
Family	7%	0%	0%	0%	2%
Community	7%	5%	44%	15%	15%
Nation	0%	11%	56%	31%	20%
Developing World	7%	5%	11%	38%	15%
Humanity	0%	21%	33%	38%	22%
Non-human Nature	14%	11%	11%	31%	16%
Environment (generic)	14%	21%	44%	46%	29%
Other	7%	0%	0%	8%	4%
None	79%	68%	22%	31%	55%

Language	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Formal	57%	37%	67%	39%	47%
Informal	43%	63%	33%	62%	53%

Voice	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
1st Person	71%	74%	78%	69%	73%
2nd Person	21%	5%	0%	0%	7%
3rd Person	7%	21%	22%	31%	20%

Other Messenger Type	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Ordinary Person	14%	58%	22%	54%	40%
Celebrity	21%	37%	11%	46%	31%
Environmentalist	36%	21%	11%	46%	29%
Businessperson	29%	32%	0%	38%	27%
Politician	0%	21%	44%	23%	20%
Organisation rank and file	0%	26%	11%	31%	18%
Scientist	21%	21%	0%	8%	15%
Other	0%	21%	33%	31%	20%
None	43%	11%	44%	8%	24%

Audience Type	Mobile (14)	Energy (19)	Govern ment (9)	NGO (13)	Total (55)
Consumer	100%	89%	56%	62%	80%
Citizen	50%	58%	89%	100%	71%
Local Community Member	7%	37%	67%	38%	35%
Activist	21%	21%	11%	54%	27%
Specific Sub-group	43%	26%	22%	15%	27%
Other	0%	21%	11%	0%	9%

Visual Representations of Nature	Mobile (14)	Energy (19)	Govern ment (9)	NGO (13)	Total (55)
Intrinsically Good	36%	58%	33%	92%	56%
Nice Place	43%	42%	67%	69%	53%
Object of Human Mastery	43%	53%	44%	23%	42%
Recreational Function	0%	16%	44%	23%	18%
Space to be Traversed	7%	11%	44%	15%	16%
Other	29%	26%	22%	31%	27%
None	7%	21%	11%	0%	11%

Mention Climate Change	Mobile (14)	Energy (19)	Govern ment (9)	NGO (13)	Total (55)
In Heading	21%	16%	89%	62%	40%
Integral	0%	26%	0%	15%	13%
In passing	14%	32%	0%	23%	20%
Once	21%	11%	11%	0%	11%
Never	43%	16%	0%	0%	16%

Mention Carbon	Mobile (14)	Energy (19)	Govern ment (9)	NGO (13)	Total (55)
In Heading	36%	26%	44%	46%	36%
Integral	36%	26%	33%	23%	29%
In passing	21%	37%	22%	23%	27%
Once	0%	0%	0%	8%	2%
Never	7%	11%	0%	0%	5%

Alternative Headings	Mobile (14)	Energy (19)	Govern ment (9)	NGO (13)	Total (55)
Energy	0%	63%	22%	8%	27%
Green	7%	21%	0%	23%	15%
Sustainability	29%	0%	33%	8%	15%
Environment	50%	0%	0%	0%	13%
Planet	7%	0%	11%	8%	5%
Recycling	7%	0%	0%	0%	2%
Smart	0%	5%	0%	0%	2%
None (i.e. Climate or Carbon)	0%	11%	33%	54%	22%

Climate Change Information	Mobile (14)	Energy (19)	Govern ment (9)	NGO (13)	Total (55)
Causal Mechanisms	7%	32%	56%	31%	29%
Scientific Consensus - Explicit	0%	26%	33%	54%	27%
Scientific Consensus - Implicit	100%	63%	56%	46%	67%
Scientific Consensus - Total	*100%*	*89%*	*89%*	*100%*	*94%*
Scale of the risks	7%	37%	56%	54%	36%

Action Impact Comparisons	Mobile (14)	Energy (19)	Govern ment (9)	NGO (13)	Total (55)
Internal	71%	68%	33%	15%	51%
Within Sector	21%	74%	22%	0%	35%
Between Sectors	21%	16%	11%	8%	15%
Ecological Limits	14%	11%	22%	46%	22%

Linguistic Repertoires	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Small Actions	57%	68%	67%	46%	60%
Non-establishment Techno-optimism	21%	53%	11%	54%	38%
Establishment Techno-optimism	64%	11%	11%	15%	25%
Radical Action	14%	26%	33%	38%	27%
Green Lifestyle	21%	5%	44%	46%	25%
Already Happening	0%	42%	0%	31%	22%
David vs Goliath	7%	16%	0%	23%	13%
Sober Alarm	0%	11%	0%	31%	11%
Reluctant Belief	7%	5%	22%	0%	7%
Alarmism	0%	5%	0%	8%	4%
Conservative Alarm	0%	0%	0%	8%	2%
Other	0%	5%	11%	8%	5%

Primary Linguistic Repertoires	Mobile (14)	Energy (19)	Government (9)	NGO (13)	Total (55)
Small Actions	14%	37%	44%	8%	25%
Establishment Techno-optimism	50%	16%	11%	8%	22%
Radical Action	14%	16%	22%	23%	18%
Green Lifestyle	21%	0%	11%	38%	16%
Non-establishment Techno-optimism	0%	21%	0%	8%	9%
Already Happening	0%	11%	0%	8%	5%
Sober Alarm	0%	0%	0%	8%	2%
Other	0%	0%	11%	0%	2%

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Appendix 6.1 Interview Questionnaire Responses

1. Being involved in your neighbourhood is important to me				
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
3	15	4	1	0

2. I often talk with other people about political issues that are important to me				
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
3	12	5	2	1

3. I don't get involved in political protests				
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1	8	7	6	1

4. People who know me expect me to know what is going on in the world				
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
4	11	5	2	1

5. Politics has little connection to my life				
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1	4	6	10	2

6. I have a pretty good understanding of the main issues facing our country				
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
2	12	5	3	1

7. I feel that I can influence decisions in my area				
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1	9	5	8	0

8. Sometimes I feel strongly about an issue, but don't know what to do about it				
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
0	11	6	5	1

9. I trust politicians to deal with the things that matter				
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1	4	2	12	4

10. Hours per day TV					
None	Less than 30 mins	30 mins - less than 1 hour	1 hour - less than 3 hours	3 hours - less than 6 hours	6 hours or more
1	3	3	11	5	0

11. Hours per day Radio					
None	Less than 30 mins	30 mins - less than 1 hour	1 hour - less than 3 hours	3 hours - less than 6 hours	6 hours or more
3	6	4	10	0	0

12. Hours per day Newspaper					
None	Less than 30 mins	30 mins - less than 1 hour	1 hour - less than 3 hours	3 hours - less than 6 hours	6 hours or more
10	5	4	4	0	0

13. Hours per day Internet (non work)					
None	Less than 30 mins	30 mins - less than 1 hour	1 hour - less than 3 hours	3 hours - less than 6 hours	6 hours or more
0	0	1	8	1	0

14. Hours per day Social Media					
None	Less than 30 mins	30 mins - less than 1 hour	1 hour - less than 3 hours	3 hours - less than 6 hours	6 hours or more
1	0	4	2	2	1

15. I trust the media to cover the things that matter to me				
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
0	10	7	4	2

16. I generally compare the news on different channels, newspapers or websites				
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1	9	4	7	2

17. If I am concerned about an issue I try to find out more about it through the media				
Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
7	11	3	1	1

18. Local Newspaper per week				
Never	Less than once a week	Once a week	Two or three times a week	Four or more times a week
8	7	6	1	1

19. National Newspaper per week				
Never	Less than once a week	Once a week	Two or three times a week	Four or more times a week
6	4	4	3	6

20. Radio News per week				
Never	Less than once a week	Once a week	Two or three times a week	Four or more times a week
3	3	1	1	15

21. TV News per week				
Never	Less than once a week	Once a week	Two or three times a week	Four or more times a week
3	4	0	6	10

22. Internet News per week				
Never	Less than once a week	Once a week	Two or three times a week	Four or more times a week
2	4	3	3	11

23. Age						
18-24	25-34	35-44	45-54	55-64	65+	Prefer not to say
7	0	2	3	7	4	0

24. Gender		
Female	Male	Prefer not to say
13	10	0

25. Highest Level of Qualification						
No Formal	GCSE/O Level	A Level/BTEC	Vocational/ NVQ	Degree or equivalent	Post graduate	Other
0	1	5	1	8	8	0

26. Annual household income (before tax)							
Up to £9 999	£10 000 - £19 999	£20 000 - £29 999	£30 000 - £39 999	£40 000 - £49 999	£50 000 - £74 999	£75 000 or more	Prefer not to say
2	7	5	5	0	2	1	1

27. Where you live			
City	Town	Village or Hamlet	Prefer not to say
9	8	6	0

28. Which political party do you most closely identify with?									
Conservative	Green	Labour	Liberal Democrat	Plaid Cymru	UKIP	Other	None	Do not vote	Prefer not to say
5	3	8	3	2	0	1	1	0	0

29. Which of the following best describes your views on the causes of climate change?					
Mainly human activity	Mainly natural processes	Natural processes and human activity	Don't know cause	Not sure if climate change is happening	Climate change is not happening
8	0	12	0	3	0

30. How important an issue is climate change?			
Very Important	Quite Important	Not very Important	Not at all Important
15	6	2	0

31. How much have you heard about climate change?			
A lot	A fair amount	A little	Nothing
6	10	7	0