

Original research article

# How are high-carbon lifestyles justified? Exploring the discursive strategies of excess energy consumers in the United Kingdom

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## ABSTRACT

The literature on climate action highlights the importance of individual and household behaviour change to achieve energy demand reduction and climate targets. However, behaviour change remains slow. The literature has highlighted numerous structural and individual barriers to behaviour change, but how high-energy consumers themselves justify the continuation of their behaviours remains poorly understood. This paper addresses this question by providing an in-depth analysis of the discourses that individuals deploy to justify and normalise high-energy consumption. This paper first provides a typology of ‘discourses of inaction’ that we might expect to find, from a series of literatures. It then analyses data from 30 in-depth interviews conducted with people from high-energy-consumption households, and from four deliberative workshops with a subsample of them and with the public, conducted to explore the viability and fairness of policy options to reduce high-energy consumption. This analysis reveals how individuals variously deploy already recognised ‘discourses of inaction’. It also identifies novel ‘discursive strategies of entitlement’; subtle rhetorical strategies to justify their high carbon lifestyles and inaction. Most notably, these newly-identified discursive strategies include the presentation of choices as determined, desires as ‘needs’, and privilege as ‘luck’ or ‘entitlement’, particularly with the use of humour and irony. We discuss how these ‘discourses of entitlement’ reflect dominant policy approaches to behaviour change, and suggest policy approaches that can more effectively curb high-energy consumption.

## 1. Introduction

Without energy demand reduction, it is unlikely that the climate targets set by the Paris Agreement can be achieved, which would require a reduction of emissions to 1.4tCO<sub>2</sub>e/person by 2030 and 0.7tCO<sub>2</sub>e/person by 2050 [1–3]. Changes in people’s behaviour, associated social practices and lifestyle choices are key to achieving energy demand reductions [4]. However, these behaviour changes have been slow so far [5]. Previous literature has examined the many reasons for people’s insufficient action on the environment [6–8], but which *discourses* people themselves employ to justify their actions, those with high energy use in particular, remains poorly understood.

Similar to broader definitions of discourse [9], we use the term to refer to the language people use to communicate and justify their actions to others. Specifically, our research asked high energy consumers about

their lifestyles, and gained insight into the ways in which they deployed different discourses (and discursive strategies) to justify their behaviours. It also deliberated potential policy approaches to reduce (particularly high) energy consumption, which revealed further use of discourses in discussing behaviour change. Understanding these discourses is important to enable climate change campaigners, community groups, and policy makers to find ways to challenge them, and to develop counter-discourses and policies that are effective in reducing high-energy demand and its resulting emissions.

Opinion polls<sup>1</sup> suggest that 78 % of Europeans believe that climate change is a very serious problem, with 90 % of them believing carbon emissions should be reduced to meet a 2050 carbon neutral or Net Zero<sup>2</sup> goal. In the UK in 2021, a Centre for Climate Change and Social Transformations commissioned poll found 83 % are worried about climate change, 63 % believe the UK is already feeling its impacts, 79 %

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know about the 2050 Net Zero goal and 54 % feel this goal needs to be achieved before that date [10]. Meanwhile, there are clear disparities in household energy consumption and emissions, correlated with income [11,12].

Numerous studies have demonstrated that materially wealthy people have disproportionately large energy consumption [13,14] and emissions [15–18], and are responsible for disproportionate amounts of the most climate-impacting individual behaviours such as excessive car-driving [19] and frequent flying [20,21]. Therefore, energy consumption reduction by those who use the most energy could achieve the most significant climate action, and inaction by these groups is correspondingly obstructive. In addition, historical increases in fossil fuel use to 2000 (in the UK) have been attributed to recreation and entertainment, and commuting and business travel, rather than the provision of basic material needs [22], suggesting that justifications for these specific practices might feature prominently in the accounts of high energy consumers. The strategic deployment of discourse thus plays a role in enabling particularly those with high levels of energy consumption to justify and normalise their lifestyles, and thereby, their energy consumption.

To our knowledge, this is the first study that explicitly examines how high energy consumers deploy a variety of discourses to justify and normalise their high-energy lifestyles and inaction. We first review prominent public discourses employed to argue for delaying collective action on climate change (i.e. discourses of delay, and myths of sustainability), behaviour change literature on barriers to pro-environmental action (we convert these explanations into ‘ideal type’ discourses), and literature on discursive management of cognitive dissonance. From this review, we create a typology of ‘discourses of inaction’ that we might expect individuals to deploy. The paper then introduces the High Energy Consumers project and its data collection and analytical methods, and presents findings on the discourses employed by interviewees and workshop participants, including novel ‘discursive strategies of entitlement’, before suggesting what their implications are for policy and research on reducing high energy consumption.

2. Literature review: a typology of discourses of inaction

Discourses of inaction are defined here as the sorts of explanations, arguments, and reasons that individuals might give to justify inaction on the environment. They arise from a specific set of literature sources, and comprise:

- Discourses of delay [23] - arguments in public discourse for climate inaction by governments, individuals, and other actors;
- Myths of sustainability - that “prevent policy makers”, and individuals, “from effectively addressing the sustainability challenges” ([24]: 2);
- Barriers to pro-environmental behaviour - synthesised and modelled by Kollmuss and Agyeman [25], in exploring the ‘attitude-behaviour gap’;
- Disablers and barriers of environmental behaviour - explored by Barr [26], in explaining the ‘value-action gap’; and
- Strategies for managing cognitive dissonance, between environmental values, attitudes, or beliefs, and individuals’ actions, behaviours, and practices, found across a broad literature.

As this summary shows, the first four sources of ‘discourses of inaction’ are single publications. In the first two, the authors straightforwardly list the respective discourses and myths, as laid out in Tables 1 and 2.

The sources rebut these discourses and myths, which we cannot do here. In the cases of the next two sources, the authors summarise and synthesise previous research to produce diagrammatic models of the factors behind (intentional) pro-environmental behaviour (Figs. 1 and

Table 1 Discourses of Delay, taken from Lamb et al. 2020.

Type of discourse	Discourse name	Ideal type phrases utilising this discourse
Redirect responsibility	Whataboutism	Our carbon footprint is trivial compared to [...]. Therefore it makes no sense for us to take action, at least until [...] does so.
	Individualism	Individuals and consumers are ultimately responsible for taking actions to address climate change.
	The ‘free rider’ excuse	Reducing emissions is going to weaken us. Others have no real intention of reducing theirs and will take advantage of that.
Emphasise the downsides	Appeal to social justice	Climate actions will generate large costs. Vulnerable members of society will be burdened; hard-working people cannot enjoy their holidays.
	Policy perfectionism	We should seek only perfectly crafted solutions that are supported by all affected parties; otherwise we will waste limited opportunities for adoption
	Appeal to well-being	Fossil fuels are required for development. Abandoning them will condemn the global poor to hardship and their right to modern livelihoods.
Push non-transformative solutions	Technological optimism	We should focus our efforts on current and future technologies, which will unlock great possibilities for addressing climate change
	All talk, little action	We are world leaders in climate change. We have approved an ambitious target and have declared a climate emergency.
	Fossil fuel substitutionalism	Fossil fuels are part of the solution. Our fuels are becoming more efficient and are the bridge towards a low-carbon future.
	No sticks, just carrots	Society will respond to supportive and voluntary policies, restrictive measures will fail and should be abandoned.
Surrender	Doomism	Any mitigation actions we take are too little, too late. Catastrophic climate change is already locked-in. We should adapt, or accept our fate in the hands of God or nature.
	Change is impossible	Any measure to reduce emissions would run against current ways of life or human nature and is thus impossible to implement in a democratic society.

Table 2 Myths of Sustainability, taken from Power and Mont 2010.

Name of myth of sustainability	Illustration of how this discourse/myth is utilised
Information deficit	‘More information leads to sustainable behaviour’
Spill-over effects	“Small environmental actions will have a ‘spill-over effect’ to bigger changes”
Baby steps	‘If everyone does a little we will achieve a lot’
Green consumption	‘Green consumption is the solution’
Consumers first	‘Consumers should lead the shift to sustainability’
Back to the caves	“Sustainability means ‘living in caves”
Self-interest	‘Appealing to people’s self-interest is the path to sustainable behaviour’.

2). They then indicate where barriers (Fig. 1; column 3, Table 3: ‘defence mechanisms’ F to I are taken from the paper itself) and disablers (Fig. 2; column 3, Table 3) would disrupt and block pro-environmental

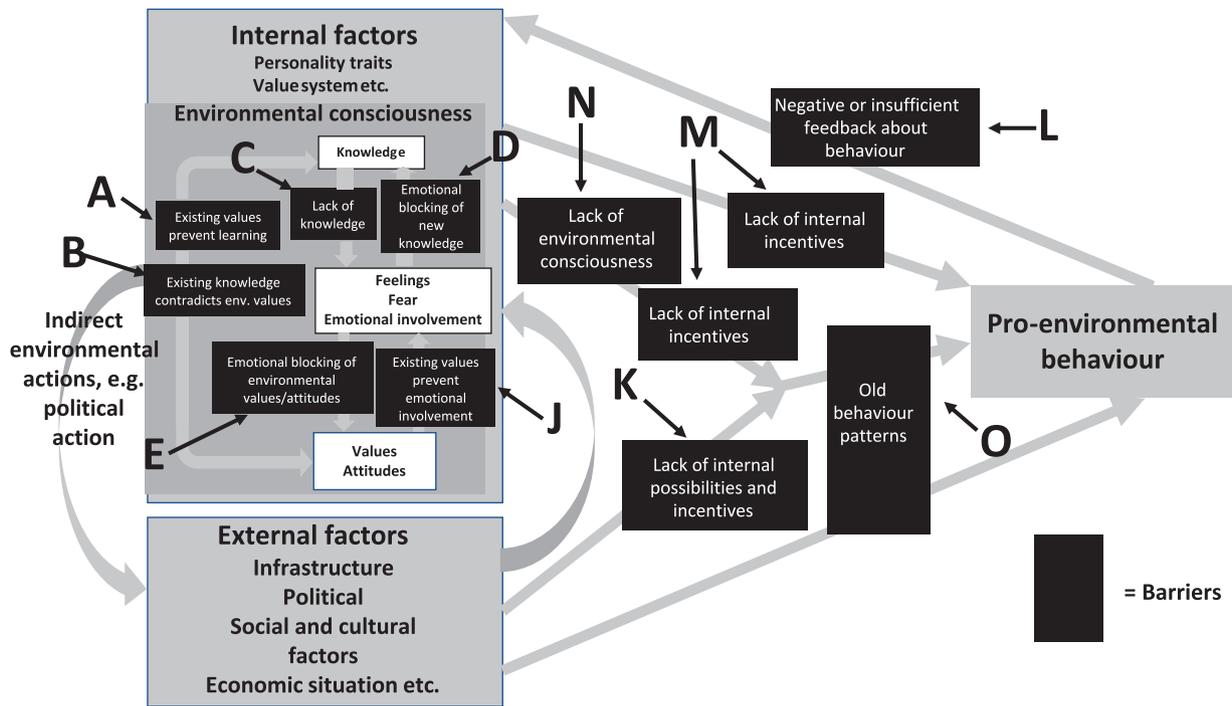


Fig. 1. Barriers to pro-environmental behaviour, adapted from Kollmuss and Agyeman 2002, 257. Letters refer to discourses of inaction in Table 3 and Appendix 1.

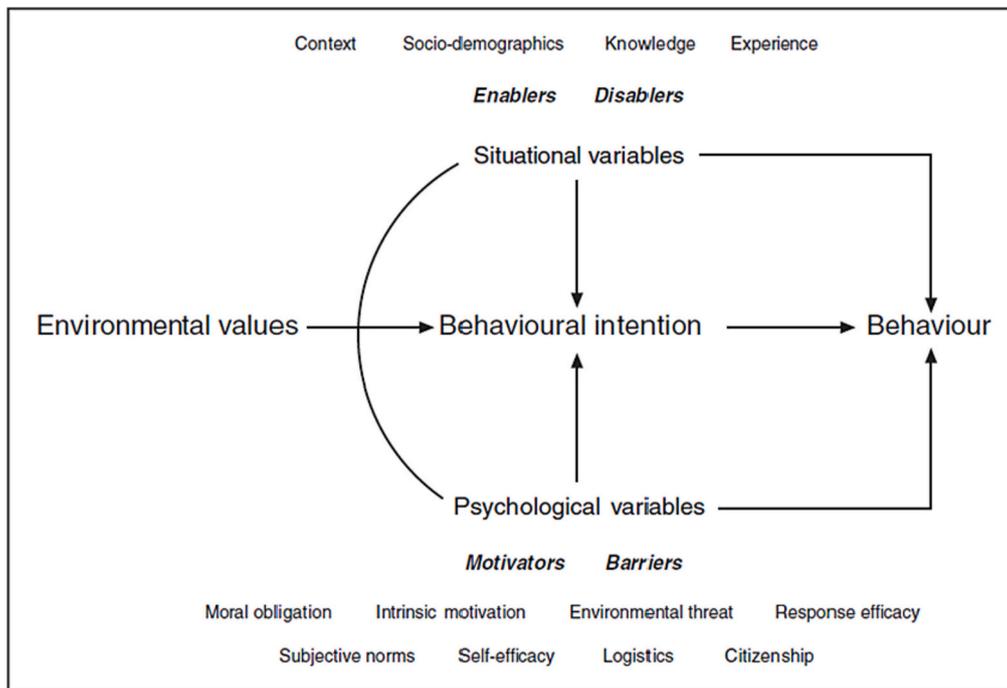


Fig. 2. Barriers to and disablers of environmental behaviour, Barr et al. 2006, 45.

behaviour (see Figs. 1 and 2). However, they do so in a positivist or realist mode, rather than asserting anything about the role of discourse specifically in helping or hindering pro-environmental behaviour.

We used the insights from these summary studies by turning the barriers and disablers identified into ‘ideal type’ statements that might be deployed by individuals using those barriers or disablers as their explanations or reasons for inaction on climate change (column 4, Table 3). This transformation was undertaken purely pragmatically, and does not imply any judgement of whether or not these barriers are

actually responsible for inaction, or any attempt to reconcile the largely incompatible ontologies of a positivist social psychology and e.g. more constructivist forms of discourse theory (although see [27]). It simply allows the findings of behaviourist research to be incorporated as hypothesised likely findings in a study of discourses of inaction that might be deployed by individuals.

In the tables above, these discourses act as storylines, reasons or excuses: discursive resources that can be deployed by individuals to explain or excuse inaction; the first two sets originating from more

**Table 3**  
Barriers and disablers of pro-environmental behaviour transformed into ideal type discourses of inaction.

Barrier or disabler origin	Type	Nature of barrier/disabler	Ideal type discourse utilising this barrier/disabler as a reason for inaction		
Discourses of Inaction: Kollmuss and Aygeman 2002	Internal factor barriers	A: Existing values prevent learning	"I'm an old dog, you can't teach me new tricks"		
		B: Existing knowledge contradicts environmental values	"I don't believe in/know climate change is not true/worth worrying about"		
		C: Lack of knowledge	"I don't know about climate change/its effects"		
		D: Emotional blocking of new knowledge	"I don't want to know/can't handle knowing about climate change"		
		E: Emotional blocking of environmental values/attitudes	"I can't handle caring about climate change"		
		F: Defence Mechanism: Denial	"Climate change doesn't exist"		
		G: Defence Mechanism: Rational Distancing	"I can't react to more bad news"		
		H: Defence Mechanism: Apathy and resignation	"Whatever."		
		I: Defence Mechanism: Delegation	"Not my problem, climate change is others' problem"		
		J: Existing values prevent emotional engagement	"I'm not an eco-sofity/don't care about climate change"		
		External → behaviour barrier	Internal → behaviour barriers	K: Lack of external possibilities and incentives	"I can't (afford to) do anything about climate change"
				L: Negative or insufficient feedback about behaviour	"Nothing I do makes a difference"
		Discourses of Inaction: Barr 2006	Internal/external → Behaviour barrier	M: Lack of internal incentives	"What's in it for me?"
N: Lack of environmental consciousness	"I'm not interested in/don't care about climate change"				
O: Old Behaviour Patterns	"I'm not changing what I do now, whatever"				
Situational variables	P: Lack of/Disabling Context			"I would, but I can't"	
	Q: Lack of/disabling Knowledge			"I don't know enough to act"	
Psychological variables	R: Lack of/disabling Experiences		"I can't do things I have no experience of"		
	S: Lack of/conflicting Moral Obligations to act		"It's not my job, I don't feel bad"		
	T: Lack of/conflicting Intrinsic Motivation		"It's not the sort of thing I do"		
	U: Lack of/conflicting Subjective norms		"No one I know does it"		
	V: Lack of/conflicting		"It's not going to affect me"		

**Table 3 (continued)**

Barrier or disabler origin	Type	Nature of barrier/disabler	Ideal type discourse utilising this barrier/disabler as a reason for inaction
		Environmental Threat	
		W: Lack of/conflicting Response Efficacy	"Nothing I can do will help"
		X: Lack of/conflicting Self-efficacy and logistical factors	"I can't do anything, or don't have the time"
		Y: Lack of/conflicting Rights and Responsibilities	"I don't have to care for the environment"
	Environmental values	Z: Lack of environmental values	"What about it?"

institutional/political sources, and the last theorised as individual-level justifications.

The remaining category of discourses of inaction from our review lies within the literature concerning 'managing cognitive dissonance'. The classic 'cognitive dissonance' literature focuses on the emotional side of dealing with such internal conflicts which demand contradictory actions [28–31]. Research on the most individually climate-damaging behaviour, flying [32], has found apparently contradictory correlations between higher levels of flying and: researching climate change [33]; pro-environmental attitudes and climate change concerns [34]; ecological awareness [35]; or 'greenness' [36]. Rather than explain these in terms of value-action [26] or attitude-behaviour gaps [25], such contradictions have also been theorised as conflicts between "green ideals" and the importance of other social roles or identities [36–39].

Other literature points out that personal identities and behaviour can be inconsistent and performed differently in different contexts [40–42]; people deploy multiple selves that may contradict. It also describes the ways people justify flying in particular, as involving 'discursive barriers' to sustainable behaviour, that are 'psychosocially' organised [36,43]; socially organised forms of managing conflicts that individuals latch onto, by "performing 'identities' through talk" ([43]: 194). People have also been found to deploy: contemporary climate change discourses that exonerate individual responsibility [44]; 'storylines' [45] that discourage addressing problems; shared 'stocks of knowledge' to defend against reality and the scope of change required [29]; and culturally sanctioned understandings and behaviours, that allow individuals to carry on with 'business-as-usual'. This literature therefore identifies that discourse used to justify inaction can express individual and psychological conflicts, but also in ways that reflect discourses commonly available in society.

The literature suggests several ways in which people can discursively respond to these conflicts, including (again using examples regarding flying):

- offering *justifications* based on aspects of the trip, context or purpose, or their personal identity (e.g. as cosmopolitan or well-travelled) [36,46];
- raising other behaviours as *compensation* [34,36,46] e.g. offsetting (rare and distrusted) or other 'green' lifestyle behaviours;
- attributing the inconsistency to external forces, i.e. *shifting responsibility* [36,46,47]; or downplaying or *deprioritising* damaging behaviours [36].

Although these responses are not bounded discourses, they can be seen to map onto some of the discourses identified from the previous

sources (Tables 1–3). Essentially, there is triangulation between different theoretical approaches that find similar responses to justifying environmental inaction, with more or less focus on how *specific* narratives or reasons are deployed.

The review above and the formulation of a typology of ‘discourses of inaction’ allows researchers to look for these specific discourses in their data. In the next section, we describe how we went about this in our research. The application of our typology of discourses of inaction extends beyond this single study: these are justifications for inaction that can be looked for in other, especially qualitative, research on behaviour change.

### 3. Methods

The findings below arise from activities conducted in the High Energy Consumers project. The first was a qualitative interview study (n = 30) to talk to high-energy consumers to find out about how energy demand arises in high-energy lifestyles. The second was a series of four deliberative workshops with a) a sub-sample of these interviewees, and b) with members of the general public with different levels of energy consumption, to discuss potential policy approaches to radically reducing households’ energy consumption.

#### 3.1. Interviews

The interviewees were recruited from a shortlist of 8 Lower Super Output Areas<sup>3</sup> that had been identified by quantitative secondary data analysis by the research team, to have high gas and electricity consumption and car mileages, whilst avoiding rural car dependent areas [48] and areas with poor housing fabric [49]. Avoiding these factors helped ensure that high levels of energy consumption were solely/mainly due to over-consumption. These areas were also filtered using mean numbers of household flights by Super Output Area classifications, to select areas with frequent flying populations.

Professional recruiters approached potential interviewees by telephone using purchased data for the 8 super-shortlisted LSOAs, and a screening script to fulfil further broadly representative quotas (on gender, age, ethnic background), and a set of specific recruitment criteria. The targeted sample should live in newer (post-1930) OR high EPC (A-C) houses, and be bill-payers (i.e. not students or dependents), with a quota made up of:

- 20 **high domestic + mobility** energy using households: i.e. monthly bills over £120/month and car mileage >10,000 m/year, with sub-samples:
- 5 **super high domestic energy** consumers (monthly energy bills over £160 per month); and
- 5 **super high mobility households** (one recruit with >2 personal vehicles, one household with 3+ vehicles, one recruit driving >15,000 miles p.a., and two recruits who take 4+ annual return flights).

All recruitment factors applied to ‘a normal (i.e. pre-Covid) year’, as the interviews took place in November and December 2020.

Not all quota requirements were met, as shown in the following table. However, this is not a major issue as qualitative research does not anyway rely on representativeness, and the sample largely fulfilled the relevant (i.e. consumption-related) characteristics. In terms of defining our sample as ‘high-energy consumers’, we were not working with a previous definition. However, 97 % spent more than the national average on gas and electricity, 93 % flew more than average, and 97 % of the sample drove more than average mileage, with 30 % in the top 8 % of

<sup>3</sup> These are the smallest UK census districts for which data is available, representing ~500 people.

annual car mileage (Table 4) [19,50].

Interviews of between 60 and 90 min were conducted over telephone or Zoom (during coronavirus restrictions), lasting until all items in the interview schedule were discussed at least to some degree. Transcripts were coded using Nvivo software, beginning with a ‘deductive’ coding structure derived from the schedule and literature review. Inductive codes were added as coding progressed, used to lexically recode when they were set up, and at the end of coding inductive codes were re-assigned to other parent codes or used as new parent codes. Full details of the dataset and the coding structures are available at <https://doi.org/10.5255/UKDA-SN-855789>.

The interviews were semi-structured [51] but stuck fairly rigidly to the schedule to make sure that the data collected covered the different aspects likely to account for higher energy consumption, as suggested by previous research [32,52], e.g. space heating [53], car use [54], and flying [55]. The main topic areas were: household and general life; normal regular or predictable ‘everyday’ travel; less regular or frequent travel; home heating and hot water; outdoor spaces; biography; appliances; other activities and energy used; communications and data; infrastructures; changes to home/travel activities from covid; and changes planned or anticipated.

#### 3.2. Deliberative workshops

The four workshops were recruited by the same professional recruiters to reflect representation of a mixture of different levels of domestic and transport-related household consumption (see Fig. 3). The sample for the high-energy consumers’ workshop was the 30 interviewees from the first study, narrowed to first approach those identified to have the highest consumption, car mileage and flight numbers.

In each workshop the intended sample of 8 participants was achieved, with the exception of Workshop 2 which suffered from one dropout. The characteristics of the workshop participants in key areas are shown in Table 5.

The 3-hour workshops took place in May 2021, with two of the research team as experienced facilitators. They were organised with the following schedule, which enabled discussion of 4 broad policy approaches (in italics below) individually and in comparison, and most of the time was spent in breakouts, enabling discussion facilitated with 3–4 people at a time. The workshops were designed to answer the project’s top-level research question of identifying how (particularly high) household energy demand might be substantially reduced in fair, acceptable, and effective ways.

- **Introductions**, consent, initial responses to an introductory video, rules of the workshop
- **First breakout** sessions: one group discusses *Structural Change* and *Economic/financial (Dis)incentives*, and the other, *Rationing* and *Behaviour Change*. Impacts, reasonableness, fairness, conditionality discussed.
- **Plenary** session: Summary and feedback, comments and clarifications.
- **Second breakout** session. Re-allocated groups discuss all four policy approaches. Any particularly appropriate for particular areas of consumption? In particular combinations or order? Under particular conditions? Involving trade-offs? Any alternatives?
- **Summary and feedback**.

#### 3.3. Note on data analysis

In the case of the workshops, following a grounded theory [56,57] approach, purposive sampling (of participants with different key characteristics – energy use) was combined with ‘theoretical coding’ in the sense that the analysis of interviews had highlighted the importance of discourse, and specific codes were created to identify ‘discourses’ being deployed. Appendix 1 uses interview and workshop data segments to

**Table 4**  
Characteristics of the participants, interview study<sup>a</sup>.

Sex	Ethnicity	Age	Cars	Mileage per year	Flights (rtn) per year	Bills (per month)	Housing age
M	White	18–40	6	<10 K	0	<£120	Pre-1930
F	BAME	41–65	17	10–15 k	1	£120–160	1930–1960
		65+	7	>15 k	2	>£160	1960–2000
			3		3		Post-2000
			4		4		
			5+		5+		
					10		

<sup>a</sup> Numbers in bold indicate the majority sample in each column/category.

<p><b>WORKSHOP 1:</b> <b>High Mobility, High Domestic energy consumption.</b></p> <p>10 highest-consuming interviewees (with two reserves) targeted for recruitment to Workshop 1.</p>	<p><b>WORKSHOP 2:</b> <b>Low Mobility, High Domestic energy consumption</b></p> <p>Min: 1 x no car AND less than one return flight a year, on average                      Min: 1 x &lt;5,000 miles p.a. AND less than one return flight a year, on average.                      Min 1 x any mileage p.a. AND no flights in last 5 years, on average.</p> <p>All: energy bills &gt; £120/month</p>
<p><b>WORKSHOP 3:</b> <b>High Mobility, Low Domestic energy consumption</b></p> <p>Every recruit fits at least one of:                      3+ cars in household, 2+ cars personally, 15,000+ miles car travelled annually, or 2+ return flights</p> <p>All: energy bills &lt; £80/month</p>	<p><b>WORKSHOP 4:</b> <b>Low Mobility, Low Domestic energy consumption</b></p> <p>Min: 1 x no car AND less than one return flight a year, on average                      Min: 1 x &lt;5,000 miles p.a. AND less than one return flight a year, on average.                      Min 1 x any mileage p.a. AND no flights in last 5 years, on average.</p> <p>All: energy bills &lt; £80/month</p>

**Fig. 3.** Sample recruitment criteria, deliberative workshops.

identify the presence and deployment of the different discourses identified in the review. The novel ‘discursive strategies of entitlement’ reviewed after were highlighted by this grounded coding process.

**4. Findings**

**4.1. The deployment of discourses of inaction identified in the review**

Analysis confirmed the discourses identified in the literature review being deployed in interviews and workshops. The table in the appendix lists the discourses of inaction (and the novel findings discussed later), and illustrates them with quotes sourced from interviews where possible, and then from the highest-energy-consumer Workshop One, in preference to other workshops. The following outlines some findings about how the discourses were deployed specifically when discussing climate change (and responses to it).

In the 30 interviews, no high-consuming interviewee spontaneously mentioned climate change, whether to deny it or otherwise discuss it. Instead, there were self-deprecating mentions of (carbon) footprints (discussed below). One interviewee mentioned a favourite book about ‘global warming’ and how to address it: a bestseller. When asked

explicitly if she had concerns about climate change she instead responded by ‘translating’ it first into naturalness, then into local organic food. She then used discourses of inaction P (“I would, but I can’t”) and X (“I can’t do anything, or don’t have the time”) (see Table 3), revealing that her actual behavioural responses were minimal: “We do as much as we can here but ... as you grow older, you know, *what’s available, what’s easiest*” (INT21).

Another interviewee claimed to be:

*“very conscious about environmental issues ... you see what happens in China and America and some other places and because I’ve travelled all over the world I’ve seen it and I think ‘and we worry about turning the kettle on for two seconds longer than it should be compared with some of these other things’, and you think ‘gee whizz!’”*

(INT16)

This clearly reflects reviewed discourses of delay – Whataboutism and the Free Rider Excuse - whilst simply *ignoring* the conflict between being environmentally conscious and constantly flying around the world. Note that this individual would deploy different discourses in the deliberative workshop; where they instead stressed that the UK should show leadership to the rest of the world.

**Table 5**  
Achieved sample characteristics, deliberative workshops.

Criterion	Workshop				
		One: high domestic, high mobility	Two: high domestic, low mobility	Three: low domestic, high mobility	Four: low domestic, low mobility
Sex	Male	5	2	5	2
	Female	3	5	3	6
Age	18–40		2	3	3
	41–64	6	4	2	2
	65+	2	1	3	3
Race	White	6	5	7	7
	BAME/other	2	2	1	1
Energy bill per month	<£100			8	8
	£120–160/mo	4	6		
Annual car mileage	£160+/mo	4	1		
	<5000		2	3	6
	5–10,000	6	4	4	2
Number of cars in household	10,000+	2	1	1	
	0			2	1
	1		6	1	7
Number of flights per year	2+	2 (1 with 3, 1 with 5+)	1	5 (1 with 3+)	
	0				4
	1		7 (<1)		4 (<1)
	2+	8 (2 with 4, 6 with 5+)		8	

Other relevant explicit discussions in interviews centred around rejection of green energy tariffs “*your electricity in your house ... if you believe it’s coming from a windmill ... because you signed up for green energy, that’s not going to happen*”, and renewables “*unfortunately, the green lobby ... positively believe that windmills will provide sufficient, but they never will*” (both INT4).

In workshops, the highest energy consumers (in Workshop One) relied heavily on Lamb et al.’s discourses of delay [23], with examples of 10 of the 12 discourses given in the Appendix 1. They particularly deployed:

- All Talk, Little Action, “*the UK is a world leader in offshore wind power, which is brilliant, right?*”;
- Technological Optimism, “*the car industry has made great changes ... all models are going to be electric in three or four, maybe five years’ time, about 2025*”;
- Free Rider and Whataboutism, “*we only produce something like one percent of any sort of pollution in the world ... I think England is most probably streets ahead of a lot of countries, and I think we’ve got to be very careful that we don’t put ourselves into a disadvantaged position*”. These were popular particularly with participants who were involved with (international) business; and
- Carrots not Sticks and/or the Myth of Self-interest, usually discursively ascribed to others “*you could ... say, ‘... Can we give you incentives ... to swap a gas guzzler for a low emission vehicle?’*”; “*You can’t say, ‘... everybody has to ... do something completely different.’ People have to be incentivised in a positive way*” (W1).

Other workshops, particularly those with low domestic energy household participants, instead relied on a wider spread of discourses of inaction, with a large number of deployments of: N (Lack of environmental consciousness); C (Lack of knowledge); and V (Lack of/conflicting Environmental Threat) (see Table 3). These were mostly other-ascribed, describing how ‘others’ or ‘people’ need to understand the reality of climate change to respond, but as shown in the Appendix 1, this could also be self-ascribed.

4.2. Novel discursive strategies of entitlement

The above (and the Appendix 1) indicates how the discourses in our typology of ‘discourses of inaction’ were deployed. However, in both interviews and then, to a lesser extent, workshops, coding analysis

highlighted that other ‘discursive strategies’ were deployed in the data. Some resemble/deploy discourses of inaction, but have a distinct nature. In subtle ways, they justified high-energy consuming lifestyles by denying or obscuring that what they described was behaviour resulting from conscious choices, themselves often based on inherited privilege and/or high income. For this reason, we are calling these novel discursive and rhetorical strategies ‘discursive strategies of entitlement’.

4.2.1. Claiming that ‘we are doing everything we can’

This discursive strategy, rather than justifying inaction or claiming to be compensating for high-impact behaviours (as in the cognitive dissonance literature), simply portrayed low-effort, low-impact pro-environmental actions as sufficient energy saving, by claiming to have reached the limits of agency. They claimed that: “*I can’t really do much more reduction than what I’ve done in using energy costs ... an A rated machine, LED lights everywhere, all the normal things that everybody does*” (INT4); “*We all did our best to keep things efficient and as green as possible, so LEDs, keeping things off that we are not using, minimising usage of heat, that sort of thing*” (INT15).

This self-portrayal as environmentalists who could not do any more cannot be squared with the reality of the interviewees’ high levels of energy consumption, which arose from e.g. heating large homes, high car mileages, and frequent flying. Rather than managing cognitive dissonance, this discursive strategy simply pretended it did not exist, by focusing on minor energy efficiency strategies. In workshop discussions, the same strategy was ascribed to others: “*I think that everyone who cares about climate change is already doing everything they can*” (W4).

‘All the normal things that everybody does’ highlighted that a highly specific suite of energy efficient technologies (‘A+’ rated devices and LED lighting particularly) and behaviours (avoiding tumble-drying if other options were available) was used to demonstrate that interviewees were ‘energy efficient’ or ‘conscious’ of energy use. Other behaviours cited were turning off lights and lowering thermostat settings (long existing targets of governmental behaviour change campaigns), and consumerist behaviours such as avoiding packaging and plastic, and eating organic, local or ‘natural’ (unprocessed) food. Even here, limits based on convenience and cost were cited as limiting behaviour change: “*I think price is quite a common thing for me and convenience ... I don’t want to change my lifestyle ... if it’s going to be a massive inconvenience*” (INT18). Recycling was only mentioned by one interviewee, as something they “*can’t be bothered*” to do: “*I grew up in an age where you chucked everything in one bin ... it’s not the way I was brought up*” (INT11),

a combination of discourses of inaction A and O.

#### 4.2.2. Defining choices ironically as pre-determined

Another strategy was to use the language of constraint to describe different aspects of lifestyle, but in an *ironic* way. One interviewee suggested that:

*“you’ve just had no option but to work in London for certain jobs when you live round here so it’s a sort of lifestyle... it’s an economic imperative to live close enough to get in there but we made a lifestyle choice to live far enough away that you have a bit more space and greenery”.*

(INT3)

This described job location, and therefore car commuting, as being *enforced* by a set domestic location and a job type. This discursive strategy of denying agency was then immediately self-deconstructed as being the result of a lifestyle *choice* to live in a leafy suburb.

In the following quote, trips to a foreign apartment are described as being ‘necessitated’ by the interviewee’s family ‘taking advantage’ of it, stated in an ironic, humorous way: *“with the grandchildren ... sometimes I have to go over there ... all the family come out ... it’s quite big so they take advantage of it ... all for nothing”* (INT16). Having a foreign apartment on a tropical island to share with his family is presumably actually a proud achievement of this interviewee’s life, but he describes it in ways that make it seem like a chore, rather than a privilege.

#### 4.2.3. Needs

Another example of discursively justifying energy consuming behaviours is using the explicit *language* of need in expressing desires. One interviewee stated that an SUV was ‘needed’ *“because my back is not great. ... I need the sort of upright position, so a car that’s good for my back”*, another that *“if I didn’t have a horse... before I didn’t have a car, it’s only because I sort of need it to get to her”*. Again, this was often done with irony or humour. An interviewee described seeing *“a Nespresso machine and I thought, ‘well, I need one of these. Got to get one of these’.*” Our interviewee with six cars justified owning a sports car because *“I need a proper grown-up car [laughter]. So, I needed a grown-up car that felt grown-up and still not grown-up”*.

In workshops, ‘needs’ language was also deployed for ‘wants’ or ‘desires’. This justified (others’) foreign flights, *“in terms of mental health and wellbeing, some people really, really need to go, like, love their holidays”* (W4), or even ‘recreational’ flying: *“every weekend, hop in a ... plane, fly around for a couple of hours ... it’s not for me to tell people what their hobbies are, because you know, like, we all need them”* (W4).

#### 4.2.4. Luck and merit, not privilege

Another discursive strategy involved describing the fruits of privilege as being due to either luck or merit: luck is an impersonal force that cannot be blamed on the recipient, whilst meritocracy justifies the exercise of privilege. The former is a particularly upper/middle class register in the UK, similar to understatement, but used to deny privilege as being due to work (which might be seen as lower class, *nouveau riche* etc.), whilst the latter is more common in the upwardly-mobile middle class.

Deploying ‘merit’ has been found by studies reviewed above, justifying the ‘treats’ represented by e.g. foreign holidays [38]. Here one participant similarly *“treated myself. I can’t not have a coffee machine”* (INT2). One interviewee did reveal that their ‘lucky’ privilege was essentially inherited:

*“Very fortunate, we did go on quite a lot of holidays. Generally we’ll go ... family skiing, usually with my parents at Christmas time ... maybe one or two other skiing holidays with my friends or with my work colleagues”.*

(INT20)

Luck was also used to describe deliberate privileged choices in being

credited for:

- residential locations *“we are lucky; locally to us there are the Chiltern Hills and lots of paths for walking up there”* (INT17), *“we’re quite lucky even though it’s reasonably close to London ... it’s very rural”* (INT18);
- the size of house and rooms *“We’ve got a baby grand piano which, if you look at ... places you buy nowadays, that would take up a whole room, so we’re very lucky from that point of view”* (INT12);
- or even domestic staff *“living in South Africa, we actually had the fortunate hands to... we had wonderful domestic ladies who would – we were very spoiled – would actually do a lot of the washing for us”* (INT29).

Another interviewee combined luck and meritocracy in justifying foreign travel, as something they passed from their childhood to their own child:

*“We’re very lucky and we’re very fortunate with what we’ve made with our life ... we hope that rubs off ... that if you put some effort in, you will get rewarded for your efforts”.*

(INT22)

This meritocratic planning of life involved curating a ‘bucket list’ of experience-based foreign travel: *“New York ... doing that helicopter tour ... going to Las Vegas ... flying by helicopter to the Grand Canyon to have a champagne picnic ... the cruise to Alaska ... with the Hubbard Glacier in front of us”* (INT22).

Perhaps the only time that an interviewee directly admitted to their privilege being responsible for their environmentally-damaging behaviour, they first deflected this as being due to ‘luck’:

*“I’m really lucky ... from a cash point of view, I don’t have to worry about ... a bath every day ... I don’t have to worry about ... if it’s a bit cold, that we put the heating on or they leave lights on ... I’m really lucky ... it means I can live my life comfortably without having to worry about it. Now how that affects the environment – that’s a different thing”.*

(INT11)

Merit and luck were also present in workshop discussions, whether ascribed to others: *“this is ... anti-kind of rich ... they’re going to say, ‘Oh, we work hard to afford these [multiple cars]’ and that’s fair”* (W4) or to oneself: *“I’m fortunate to have been most places in the world”* (W1).

#### 4.2.5. Other uses of humour

The most notable other examples of interviewees using humour involve *admitting* a high environmental impact, and are therefore a discursive strategy that perhaps copes with the emotions of cognitive dissonance, by laughing it off. For example, a list of exotic long-haul holiday destinations was summarised with *“So, yeah, yeah, I’d hate to think of my carbon footprint [laughter]”* (INT28). A couple interviewed interjected in a list of global holiday destinations that their *“footprint is massive”*, and then together reflected that:

*“we’re probably the worst people on the planet at least from an energy point of view.” “But at least we’re not leaving any kids to use any energy up in the future.” “That’s it. We’ve offset it; we’re using our energy up now and then we’re leaving it to the rest”.*

(INT6)

This is in some ways an accurate observation, but clearly made ironically, whilst also mocking offsetting – a key ‘compensatory’ behaviour in justifying high-energy consumption.

In the high-energy workshop, a lack of interest in long-haul flights was also jokingly said to be *“because I’ve been everywhere ... So my carbon footprint ... you know, I’ve probably used all my carbon...that’s all ploughed up already”* (W1).

#### 4.2.6. Freedom of choice

Finally, in comparison with interview data, high-energy workshop participants more often straightforwardly defended high-energy activities, based on freedom of choice discourses: “*when I was younger, I didn’t have the finances ... now got the time, I’ve also got the money, so why should I be limited in travelling to the places I want to?*” (W1). Even when people claimed they might change behaviour, they were loath to impose this on others: “*I’m all for reducing ... the energy that we use ... how many miles I drive and wherever I fly and when – but that’s a personal choice about my life, I wouldn’t impose it upon other people ... I don’t think it’s acceptable*” (W4).

### 5. Discussion

The deployment of discourses of inaction and these specific ‘discursive strategies of entitlement’ differed in interviews and workshops: in different discursive environments. This is, of course, to a large degree down to the different research questions being pursued and methods being used. Interviewees were describing high-energy consumption lifestyles without defensiveness, whereas in workshops there was a direct challenge to high-carbon lives, requiring justification, defence, or rejection.

High-energy consuming interviewees, when they reflected on the energy impacts of their lives at all, had two main discursive strategies. First, in the area of home energy use (laundry, lighting, heating) and in consumer decisions (on purchasing efficient devices, packaging and food), they displayed an alignment with dominant government-promoted energy efficiency behaviour change discourses. These are of individualised, neoliberal, personal responsibility for climate change, and of appropriate responses being primarily individual, rational, energy-efficiency-focused behaviour change and consumer choices. This key governmental discourse and policy focus is utilised by high-energy consumers as backing for their self-identity as ‘already doing as much as they can’ for the environment. This means they feel that they have no reason to further reduce energy use beyond such low effort, low impact changes. This confirms what a major UK Parliamentary report [58] recently stated; that the only consistent principle being applied in the Net Zero Strategy is that of “going with the grain of consumer choice” [59]. They conclude that “the Government’s reticence to address key areas—such as what people eat, how we heat our homes, what we buy and how we travel—which is largely a result of a reluctance to be perceived as reducing freedom of choice, undermines individuals’ willingness and ability to take action” ([58]: 96).

Behaviour change policy has largely involved information provision to encourage smarter choices in these higher-impact areas. Perhaps as a result, the second main discursive strategy of high-energy consumers is to use irony, humour, and a rhetorical claim of ‘having no choice’ when describing those features of their lifestyles that are undeniably high-impact choices. In our data these included living in leafy suburbs and driving long distances for work and leisure, flying abroad constantly for work and novelty-seeking holidays, using new devices (e.g. home coffee-machines), and pursuing exclusive leisure interests (e.g. foreign yoga retreats, skiing, horse riding). Importantly, when these impactful lifestyles were acknowledged, guilt was turned into humour, and either agency was denied (‘we are so lucky’) or was embraced as deserving (‘we’ve earned it’). This resolves cognitive dissonance through a knowing reference to dominant social norms, because these aspects of the interviewees’ lives reflect what modern consumer capitalist culture promotes and validates as indicators of success.

Workshops, on the other hand, revealed that deliberative discursive environments enabled members of the public to reflect on their own practices and those of others, in a context where energy demand reduction was accepted as necessary, and the focus of discussion was *how* it should be accomplished. In this situation, participants frequently ascribed discourses of inaction to others; a generalised ‘people’. This strategy rhetorically distances the described ‘intransigence’ from the

speaker. Also, to a much higher degree than in interviews, discourses of delay were drawn upon by some participants, especially in the highest energy consuming workshop. They thereby avoided the need for self-reflection by arguing that collective/societal responses to climate change were unnecessary or undesirable.

In explicitly discussing climate change, ‘All Talk and No Action’ was the dominant discourse of delay used – it was claimed that the UK already is a leader on climate change, a position reflecting a discourse used by UK political leaders from Thatcher to Johnson. Otherwise, ‘Free Rider’ and ‘Whatabout’ arguments were dominant. The first argues that the UK’s competitive advantages would be harmed by taking any action that would damage industry or productivity, and the second that the UK’s contribution to the problem, and therefore any potential solution, was insignificantly small. All three can be seen as reflecting dominant discourses in the UK of British exceptionalism, and a defensive nationalism in a hostile international politics; discourses that have been boosted in the public discourse since Brexit.

How might these findings help to guide policy approaches to domestic energy demand reduction? Workshop participants stressed Self-interest as the main motivation for change (a key myth of sustainability), and therefore predominantly expressed a policy preference for ‘Carrots, not Sticks’ (a discourse of delay). This position reveals a problematic sticking point for policy-makers. Many of those who are wealthy enough to invest in major, expensive changes to household and lifestyle emissions, such as insulation, electric heating, renewable energy sources, Electric Vehicles (EVs) and so on, believe it is the government’s job to ‘bribe’ them to do it. Interviews did reveal however that *some* were intending to buy EVs and in some cases, to design brand new homes for retirement that incorporated a number of high tech low-carbon solutions. These included solar panels with battery storage, Passivhaus standard insulation and heat pumps. The stated motivations were primarily self-interested cost savings. Can fair climate policy rest on regressive incentivising measures that will primarily result in economic savings for the already rich?

However, elsewhere in workshop discussions, fines and sanctions were instead suggested as the ultimate motivations for the uncaring or self-interested. As mentioned, the most common discourses of inaction used in workshops (C, N, and V, see Table 3) were also ascribed to others, seen as those who do not: know enough (C); care about the environment (N); or see it as affecting them (V). The latter case was seen as a problem, because “*unless it affects that person you’ve described, [voluntary] behaviour change is not something you can force on someone*” (W1). As the quotes in the Appendix 1 show, high consumers were identified as hard to appeal to (N), and participants themselves were surprised by the facts about the extent of change required to meet climate targets (E, C), with the latter quote revealing that once knowledge about the seriousness of the issue had been absorbed through the workshop, they felt that:

“... *there has to be a fundamental change in just about everything we currently take as normal, and that extends right up from changing the way we have this freedom to fly anywhere in the world at any time from an airport within 20 miles of our home, to basically changing the way we deal with heating our homes or going to the shops*”.

(W3)

If appeals, information, and exhortations are not effective, then how else to achieve this fundamental change? There was near consensus, in workshop deliberations, that a sole reliance on (voluntary) ‘behaviour change’ was fruitless. This reflects the discursive strategy of interviewees claiming their limit of agency had been reached. Rather than voluntary restraint, the policy approaches of *structural change* and *economic (dis)incentives* and, to a lesser degree, *rationing*, applied by government, were preferred policy approaches in workshops. These would reshape the markets and choice environments within which further behaviour change would then be possible: limiting flights, shifting travel to public transport or e-bikes, and purchasing EVs and electric heating

systems in particular. As a low-energy workshop participant observed:

“So we’d have to impose that upon [high energy consumers] – and how do we do that? Probably across the board, something like rationing, where you take the choice away from the person and you say, ‘We can’t trust what you think because you think you’re doing well and you’re really not’”.

(W4)

These broader findings offer more hope for public acceptance and support for government action than the defensive deployment of discourses of delay found here, although some discursive strategies (such as a recasting of desires as needs, or the argument of merit) seem impossible to overcome through policy alone. The findings and analysis across both research activities support the need for research to move beyond behaviourist explorations of barriers and disabling factors, which consumers reproduce in their own justification and normalisation of high-energy lifestyles. Deliberative research settings are particularly promising for establishing effective policy. They prompt defensive discourse from some, but also enable discussion of opportunities for change (particularly from the state and markets) that move beyond the limits implied by an individualised, consumer conception of behaviour change, to embrace the systemic changes required to meet our Net Zero obligations.

### 6. Conclusions

We have produced and operationalised a typology of discourses likely to be used by people arguing against action on climate change, or justifying their own and others’ inaction. We then identified novel ‘discursive strategies of entitlement’ that go beyond discourses of inaction, particularly using irony and humour to deflect questioning of

privileged high-energy lifestyles. All three modes of justifying inaction on the environment (using discourses of delaying societal responses, discourses of individual inaction, and discursive strategies of entitlement) have implications for UK government policy on the climate. High-energy consumers may never voluntarily respond to information, exhortations, and appeals to self-interest. Instead, stronger state actions including those that impinge on ‘consumer freedoms of choice’ are required. Deliberative policy debates can legitimise this shift.

### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

### Data availability

Data will be made available on request.

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## Appendix 1. Discourses and strategies impeding climate action

Discourse set	Type	Discourse title	Mnemonic phrase	Example quote (from interviews unless workshop number is given)
Discourses of Delay: Lamb et al. 2020	Redirect responsibility	Whataboutism	Our carbon footprint is trivial compared to [...]. Therefore it makes no sense for us to take action, at least until [...] does so.	“We only produce something like one percent of any sort of pollution in the world. So ... it only works if every country in the world does the same thing” (W1)
		Individualism	Individuals and consumers are ultimately responsible for taking actions to address climate change.	“if we start going down a certain route ... people won’t be able to buy things in shops, and therefore you won’t be able to get that cycle going.” (W1)
		The ‘free rider’ excuse	Reducing emissions is going to weaken us. Others have no real intention of reducing theirs and will take advantage of that.	“The more natural we can go, the better it is, you know, in terms of growing our own vegetables.” (INT21)
	Emphasise the downsides	Appeal to social justice	Climate actions will generate large costs. Vulnerable members of society will be burdened; hard-working people cannot enjoy their holidays.	“I think if England goes in a particular way, we could end up being very uncompetitive in the marketplace ... I think we put ourselves in a very uneven negotiating position.” (W1)
Policy perfectionism		We should seek only perfectly crafted solutions that are supported by all affected parties; otherwise we will waste limited opportunities for adoption	“It’ll be the poor who take the brunt of it ... families that aren’t in great financial situations ... they look forward to their one and only really nice holiday ... making that harder for them just seems unfair.” (W1)	
		Appeal to well-being	Fossil fuels are required for development. Abandoning them will condemn the global poor to hardship and their right to modern livelihoods.	“there are going to be unforeseen consequences ... we won’t have thought of all of them, and whatever we plan for there will be other unforeseen consequences that none of us have thought about” (W1)
				“If the number of flights in the world are going to reduce by, say, 80 %, you’re going to have a massive unemployment ... millions of people employed within the travel industry who will no longer have a job.” (W1)
				“put it in the context of Sharm El-Sheikh ... that place is almost derelict ... just because flights

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Discourse set	Type	Discourse title	Mnemonic phrase	Example quote (from interviews unless workshop number is given)	
	Push non-transformative solutions	Technological optimism	We should focus our efforts on current and future technologies, which will unlock great possibilities for addressing climate change	weren't allowed there, hotels, scuba workers, you name it, they've all lost their jobs now" (W2) "there are some interesting technologies emerging ... turning plastic waste into cleaner burning aviation fuel" (W1) "I heard recently, like, a politician saying ... people don't need to change their mode of life ... the technology's going to develop and they're going to make it easier to solve this crisis." (W3)	
		All talk, little action	We are world leaders in climate change. We have approved an ambitious target and have declared a climate emergency.	"the UK is a world leader ... so I think we've made great strides" (W1) "I think most global governments now have made ... made pretty aggressive commitments to reduce carbon emissions." (W1)	
		Fossil fuel substitutionalism	Fossil fuels are part of the solution. Our fuels are becoming more efficient and are the bridge towards a low-carbon futures.	"we're sort of being environmentally friendly because ... we've got a big gas guzzler, but I've also got a hybrid, so I'm helping with that as well." (W1)	
		No sticks, just carrots	Society will respond to supportive and voluntary policies, restrictive measure will fail and should be abandoned.	"I'd just say any scheme ... would be better if it was voluntary, and instead, you could reward people to keep within the limits" (W3)	
	Surrender	Doomism	Any mitigation actions we take are too little, too late. Catastrophic climate change is already locked-in. We should adapt, or accept our fate in the hands of God or nature.	"But the world changes; it's had its ice age, it's had its whatever ages and such, I can't recall. And yeah, you see, it is going to change, but we're just speeding it up unfortunately" (W1)	
		Change is impossible	Any measure to reduce emissions would run against current ways of life or human nature and is thus impossible to implement in a democratic society.	"... appeals to people and making things more expensive doesn't change people. Putting people dying on tobacco packets doesn't stop people buying it ... they don't seem to care about their own health, so why would they care about the future or the future's health" (W3)	
	Discourses of Inaction: Kollmuss and Aygeman 2002	Internal factor barriers	A: Existing values prevent learning	"I'm an old dog, you can't teach me new tricks"	"I'm not adverse to change. So, but there has to be a relevant daily reason to do it; not just something that's completely against my sort of brought up psyche, if you will. You know" (INT11)
			B: Existing knowledge contradicts environmental values	"I don't believe in/know climate change is not true/worth worrying about"	"I'm not opposed to using the train at all, I'm quite happy to do that but it just can be quite expensive." (INT8)
			C: Lack of knowledge	"I don't know about climate change/its effects"	"The reality of the situation ... has possibly been under-communicated, I mean, I like to think I am reasonably up to speed with the climate change issues, but even I was quite astonished by the amount of change that is going to be required if we are going to achieve any of these specific targets." (W3)
D: Emotional blocking of new knowledge			"I don't want to know/can't handle knowing about climate change"	"We turned [the smart meter] off actually because... I find it quite depressing because you can see how much it costs to like boil the kettle ... and we've got the toaster going, I've got my hairdryer going and I think 'oh no, I don't want to see that!'" (INT30)	
E: Emotional blocking of environmental values/attitudes			"I can't handle caring about climate change"	"well, when I saw those graphs, they're really quite shocking and I can't get them out of my mind" (W2)	
F: Defence Mechanisms: Denial			"Climate change doesn't exist"	No data	
G: Rational Distancing			"I can't react to more bad news"	Interviewer: "So, if you did get a new smart meter for the new supplier ... would it have much effect on...?" Respondent: "Probably not. It would probably just frighten me more than anything." (INT11)	
H: Apathy and resignation			"Whatever."	"I am quite conscious of stuff ... but there's always going to be people that don't care." (W2) "why would they care about the future or the future's health, you know. They claim to care about their children's future, but they don't even care about their own future" (W3)	
I: Delegation			"Not my problem, climate change is others' problem"	"my daughter wants me to get an electric car ... because they've been taught now ... that, you know, you look after the environment" (INT11)	
External → behaviour barrier			J: Existing values prevent emotional engagement	"I'm not an eco-softy/don't care about climate change"	"Net Zero to me is just totally and utterly ludicrous ... Ridiculous ... just pie in the sky!" (INT5)
	K: Lack of external possibilities and incentives	"I can't (afford to) do anything about climate change"	"people who needed to go to Glasgow for, let's say, a day's work, can get there and back by air, especially if they live in London ...four to five		

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Discourse set	Type	Discourse title	Mnemonic phrase	Example quote (from interviews unless workshop number is given)	
Discourses of Inaction: Barr 2006	Internal → behaviour barriers	L: Negative or insufficient feedback about behaviour	“Nothing I do makes a difference”	hours each way by train, ...and that would be substantially more ... expensive than flying.” (W3)	
		M: Lack of internal incentives	“What’s in it for me?”	“whatever we do in this country isn’t going to make a blind bit of difference to bear with the overall situation we’re trying to solve.” (W1)	
		N: Lack of environmental consciousness	“I’m not interested in/don’t care about climate change”	“people have got to believe and think and be willing to do something about it” (INT16)	
	Internal/external → Behaviour barrier	Situational variables	O: Old Behaviour Patterns	“I’m not changing what I do now, whatever”	“how do we get to the person who doesn’t care ... the individual who’s making plenty of money, has a nice big car or two, goes on holidays, does whatever they want ... Because they’re big consumers of things that affect our environment, and I’m thinking planes and, you know, gas-guzzling cars and that kind of stuff.” (W4)
			P: Lack of/Disabling Context	“I would, but I can’t”	“all three of them, my wife and the two kids, are in the bad habit of, ... they need the fans on blowing in their faces, otherwise they can’t sleep.” (INT24)
			Q: Lack of/disabling Knowledge	“I don’t know enough to act”	“...all these 18-year-olds who go and take their driver’s test now need to have a car, because there’s no other way of getting from A to B in a lot of locations.”
			R: Lack of/disabling Experiences	“I can’t do things I have no experience of”	“People need to be aware of climate change and understand it is real – ... Then people will change how they act.” (W4)
	Psychological variables		S: Lack of/conflicting Moral Obligations to act	“It’s not my job, I don’t feel bad”	“I just think people just are very reliant on cars ... when I didn’t have a car, I didn’t use it, and then as soon as I got one, I used it all the time ... I look back and think, ‘Well how did I cope before? I clearly did cope, and it was clearly absolutely fine.’ And it just sort of switching that behaviour back.” (W3)
			T: Lack of/conflicting Intrinsic Motivation	“It’s not the sort of thing I do”	“I think that a large thing is ... making people have a conscience and making that conscience work for them” (INT 16)
			U: Lack of/conflicting Subjective norms	“No one I know does it”	“I’m not adverse to change. So, but there has to be a relevant daily reason to do it; not just something that’s completely against my sort of brought up psyche, if you will.”
V: Lack of/conflicting Environmental Threat			“It’s not going to affect me”	“And I think there’s also peer pressure; if I knew I couldn’t take my car out, and I’ve got neighbours all around, you know, you wouldn’t want to really risk that, you know.” (W4)	
W: Lack of/conflicting Response Efficacy			“Nothing I can do will help”	“I think the threat to the environment has to be more obvious and in our face before some people are going to accept the need to have restrictions on their lifestyle” (W3)	
X: Lack of/conflicting Self-efficacy and logistical factors			“I can’t do anything, or don’t have the time”	“we are a very small country. We might have a decent sized population, but how much of an impact are we going to make?” (W4)	
Y: Lack of/conflicting Rights and Responsibilities			“I don’t have to care for the environment”	“I don’t want to change my lifestyle to accommodate loads of things ... if it’s going to be a massive inconvenience I think like ‘oh, no, don’t do that’.” (INT18)	
Environmental values		Z: Lack of environmental values	“What about it?”	“we know not everybody does this as a matter of course, not everybody feels passionately about this” (W4)	
				“I think the people that already care about the environment and climate change are already doing everything that they can. But the people that don’t aren’t going to really, no matter what you do. So I don’t know how you would get them to do it.” (W4)	
Myths of Sustainability (Power and Mont 2010):	Information deficit		‘More information leads to sustainable behaviour’	“...when I changed my boiler ... had I known and had more information about the hydrogen boilers and the electric boilers, I might well have looked at those, but it was automatically...a gas one was automatically put in” (W4)	
	Spill-over effects		“Small environmental actions will have a ‘spill-over effect’ to bigger changes”	“...things like vegetables if there’s ones not in plastic packaging I’d rather buy them and then prepare them at home, yeah, and things like that just kind of making small changes where I can.” (INT18)	
	Baby steps		‘If everyone does a little we will achieve a lot’	“I think we can make small changes and sometimes a small change has a bigger impact than doing something big. And it’s the Pareto analysis, you know, 20 % effort, 80 % benefit.” (W1)	
	Green consumption		‘Green consumption is the solution’	No data	

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Discourse set	Type	Discourse title	Mnemonic phrase	Example quote (from interviews unless workshop number is given)
Discursive Strategies (grounded analysis):	Consumers first		'Consumers should lead the shift to sustainability'	"I'm not super eco conscious but I'm just trying to find ways that I can be for example ... I'm a bit more aware of what I'm buying, is it something that can be refilled?" (INT 18)
	Back to the caves		"Sustainability means 'living in caves'"	No data
	Self-interest		'Appealing to people's self-interest is the path to sustainable behaviour'.	"There's always going to be a portion of society that won't do anything unless it's for them" (W1)
	Describe choices as determined		'I have to'	"No, you've just had no option but to work in London for certain jobs when you live round here" (INT3)
	Describe consequences of choices as Needs		'I need to'	"and in all honesty, if I didn't have a horse... When I lived in London before I didn't have a car it's only because I sort of need it to get to her" (INT18)
	Use humour when admitting guilt		'Whoops!'	"we're probably the worst people on the planet at least from an energy point of view." "But at least we're not leaving any kids to use any energy up in the future." "That's it. We've offset it" (INT6)
	Describe privilege as luck or merit		'I'm lucky/deserve it!'	"We've got a baby grand piano which, if you look at most of the places you buy nowadays, that would take up a whole room, so we're very lucky from that point of view" (INT12)
	Claim to be acting to limits of agency		'I'm doing what I can'	"I don't think there are many ways that could be more frugal than we are. I mean ... we are comfortable but not excessively warm. We have got quite a few of these energy-saving lights" (INT19)
	Point out compensatory behaviours		'I do other stuff'	"I hang the washing in the summer rather than putting it through the tumble drier. So, yes, I am conscious of it that way." (INT4)

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