

Climate change

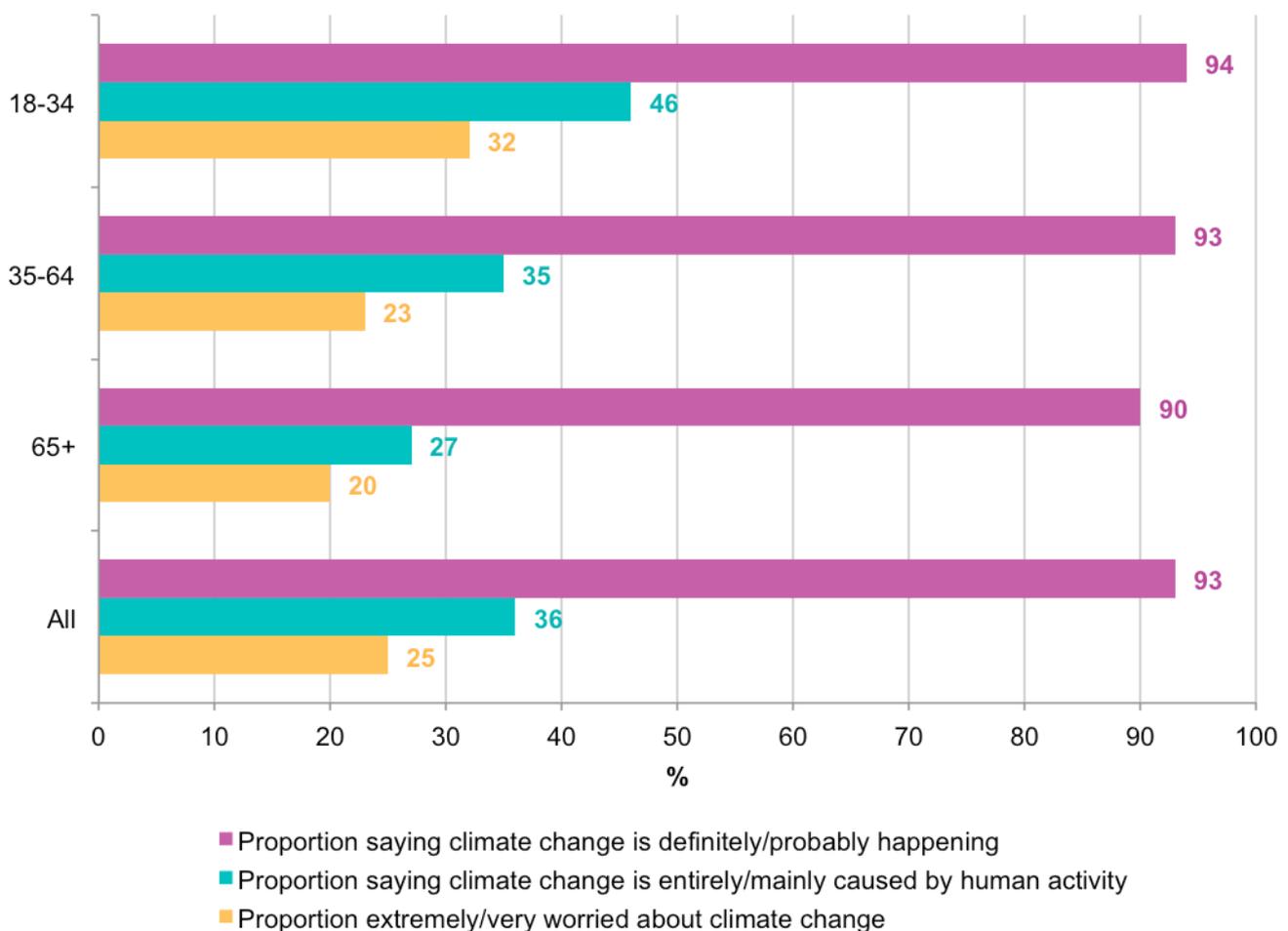
Social divisions in beliefs and behaviour

As a global problem, climate change affects everyone. But within Britain opinion is divided. This chapter asks to what extent people in Britain believe humans cause climate change, think it is a problem, and feel that citizens and governments are likely to be able to reduce it. Also, what are the main social divisions in attitudes to climate change, and how much does opinion differ between supporters of different political parties?

Spotlight

Most people believe climate change is happening but far fewer believe it is mainly caused by humans or are worried about it. Older people are comparatively less worried and think that the consequences will not be so bad.

Views on existence, causes and consequences of climate change, by age



Overview

Most think climate change is at least partly caused by humans

The vast majority acknowledge a human component in climate change, but relatively few agree with the Intergovernmental Panel on Climate Change (IPCC) conclusion that it is *mainly* caused by humans.

- 95% think climate change is at least partly due to human activity when asked about relative contributions of human and natural causes.
 - 36% say climate change is “mainly” or “entirely” due to human activity.
 - 53% think human and natural causes are equally to blame.
 - Just 2% claim that climate change definitely is not happening.
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Young and educated are more worried about climate change

Older and less educated people are less worried about climate change and think that the consequences will not be so bad.

- 31% of 18-34 year olds are “very” or “extremely” worried about climate change compared with just 19% of over-65s.
 - 35% of graduates are “very” or “extremely” worried about climate change compared with just 20% among those without any educational qualifications above GCSE level.
 - These findings reflect similar age and education patterns as found when analysing views on the extent to which climate change is happening and is caused by human activity.
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Lack of optimism about reducing climate change

Respondents assessed the chances of reducing climate change on a number of dimensions, using a scale from 0 (not at all likely) to 10 (extremely likely).

- On average people give a 4.4 score for the chances that limiting their own energy use would reduce climate change.
 - On average people give a 5.8 score for the chances that climate change would be reduced if large numbers of people reduced their energy use.
 - On average people give a 3.8 score for the chances that large numbers of people will *actually* limit their energy use.
 - On average people give a score of 4.3 for the chances that governments in enough countries will take action that reduces climate change.
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**Climate change is
arguably one of the most
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world is facing**

Introduction

Climate change is arguably one of the most pressing challenges the world is currently facing. The burning of fossil fuels, in combination with other human activities, has significantly altered the heat balance of the earth's atmosphere. This poses serious risks for both human and natural systems across the world (IPCC, 2014). As climate change is a global problem, it also requires global collaboration to address it. The Paris agreement, adopted by global consensus at the end of 2015, sets out to reduce the threats of climate change by keeping the global temperature rise well below 2 degrees Celsius above pre-industrial levels, and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (United Nations Framework Convention on Climate Change, 2015).

Policy action that different governments may take is however likely to be dependent on public perceptions in their countries – they may be less willing to take action if the electorate are not concerned or do not believe that climate change is happening. Since there is widespread scientific consensus that manmade climate change is happening (Cook et al., 2016), there should be little room for differences of opinion. So a central question this chapter will address is the extent to which the British public has a united view on climate change.

Previous evidence suggests there are a number of social divisions in attitudes to climate change (Poortinga et al., 2011; Whitmarsh, 2011; Taylor, 2012). While overall levels of climate scepticism appear to be low, there are clear differences in attitudes in terms of sex, age, and education. Climate change is largely about long-run trends in global temperatures, and is not simply reflected in day-to-day experiences of the weather. It is likely that those who have had more formal education are more likely to know about it – either from having learnt about it directly at school and university, or from active engagement with current affairs fostered by their education. Given that climate change only started to attract widespread attention from the public from the late 1980s onwards, and evidence of its existence and consequences has mounted since then, there may well be age differences in attitudes to and concern about the issue. While older generations grew up without any mention of climate change, younger generations have been taught about it in school and have heard about it in mainstream media (news and entertainment) for a longer period of their lives.

As evidence of climate change has mounted over time, so demands for mitigation policies have grown stronger. However, moves to tax and restrict carbon emissions have been resisted by some organisations. Political divisions over climate change and the environment may have been fuelled by sceptical coverage in the English-speaking media (Painter & Ashe, 2012) and campaigns to sow doubt in the public's mind about the existence and importance of climate change (Oreskes & Conway, 2010); but also by a dislike of

the solutions rather than of the issue itself (Campbell & Kay, 2014). The gap in concern about climate change between Republicans and Democrats in the US has been widely reported in the literature (Dunlap et al., 2016). Although political divisions have also been found in Europe and the UK, they tend to be much smaller than in the US (McCright et al., 2016).

Indeed, differences between Conservative, Labour and Liberal Democrat voters on this topic have been found to be modest in previous British Social Attitudes (BSA) surveys (Taylor, 2012). Although Poortinga and colleagues (2011) reported that people who are politically disengaged were less likely to think that climate change is real, more recently Britain has seen the rise of the climate-sceptic UK Independence Party (UKIP), as well as the 2016 EU membership referendum which mobilised previously disengaged citizens (Curtice, 2017). As Curtice and Tipping discuss in the Europe chapter, the politics of Brexit has profoundly shaped how citizens divide themselves politically; and that process of political sorting may well have had consequences for the extent to which supporters of different political parties hold different opinions on the environment, and climate change in particular. It is therefore an appropriate moment to re-assess public attitudes to climate change, and how they may vary across social groups.

In this chapter, we investigate the nature and extent of social and political divisions in attitudes to climate change. We use data from the European Social Survey (ESS), the European sister survey to the BSA series. The ESS is a biennial survey that has been conducted since 2002. Each round contains two modules on key social themes. Round 8 of the ESS included a module on Climate Change and Energy, with interviews conducted by the National Centre for Social Research (NatGen) in late 2016 and early 2017¹.

We discuss beliefs about the existence, causes and consequences of climate change, before moving on to individual feelings regarding the issue, including feelings of worry, responsibility and willingness to limit personal energy use. This is followed by an analysis of political divisions on climate change opinion in the context of Brexit.

Beliefs about climate change

Thoughts about climate change

Given that climate change is a long-standing and major environmental problem, people may well be expected to have given it some thought. When respondents are asked “how much have you

¹ Unlike the BSA series which draws a representative sample of those aged 18 years and over, the ESS draws a representative sample of the UK population aged 16 years and over. In order to help comparison with the BSA survey, respondents aged 16-17 and those resident in Northern Ireland are excluded from the analysis. The data were weighted to account for the way the respondents were randomly selected, and so that the distributions of age, sex, and region correspond to those in the Labour Force Survey. This means that the resulting sample can be considered broadly representative.

thought about climate change before today?”, the most popular answer is “some” (39%). Table 1 shows that a further 39% say either “a lot” or “a great deal”.

We explore divisions by age and education here and elsewhere in the chapter, firstly because these have been highlighted as being important social divisions (Poortinga et al., 2011; Whitmarsh, 2011; Taylor, 2012) and secondly because regression analyses, that are not shown but inform this chapter², indicate that they are more important and consistent determinants than factors such as sex, income, religion and ethnicity³.

When we look at the different age and education groups, we see that a majority (56%) of graduates say they have given climate change a lot or a great deal of thought⁴. People with lower levels of education are increasingly less likely to say that they have done so (36% for participants with an intermediate qualification⁵, and 27% for those with GCSE or lower). Despite being more likely than older groups to have grown up hearing about climate change, younger age groups generally do not report having thought about it more. Overall, while people may not have thought much about climate change they do seem to have thought about it enough to have an opinion on whether it is happening and be aware of whether or not it is a problem caused by human activity.

A majority (56%) of graduates say they have given climate change a lot or a great deal of thought

Table 1 How much people have thought about climate change before today, by age and education level

	Age group			Highest education level			All
	18-34	35-64	65+	GCSE or lower	Intermediate	Degree	
Thought about climate change	%	%	%	%	%	%	%
A great deal	11	12	12	7	9	21	12
A lot	27	30	23	20	27	36	27
Some	37	40	40	39	43	33	39
Very little	18	16	19	25	18	9	17
Not at all	6	2	5	8	3	2	4
<i>Unweighted base</i>	392	893	540	607	736	515	1858

Source: European Social Survey wave 8 (2016), British respondents aged 18+

Answer options are presented in the table in reverse order to how they were presented to respondents

² Regression analysis output is available from the authors on request.

³ To save space, our tables divide people into three groups for each of age and education. There are still further divisions within these groups, but they follow essentially the same pattern (Barasi and Harding, 2017).

⁴ Figures reported in the main text body that combine two or more categories from a table are calculated from the exact data, rather than the rounded figures that appear in the table. As a result, these figures will sometimes vary from the sum of the rounded figures by +/-1%.

⁵ This category includes those without a degree but with, for example, a nursing certificate, BTEC, HNC, A and AS-levels, Vocational A-levels, apprenticeship or other equivalent qualifications above GCSE level.

The vast majority of people think that the world's climate is changing (93%)

Existence of climate change

Table 2 shows that the vast majority of people think that the world's climate is, at least probably, changing (93%). Less than 2% report that they think the world's climate is definitely not changing; and an additional 5% that climate change is probably not happening. Scepticism regarding the existence of climate change is very rare, both overall and in the different age and education groups.

Given the overwhelming scientific consensus on climate change, it might be considered surprising that still 39% are not fully sure that the world's climate is changing. The extent to which people are convinced is greater among younger and more educated people. But even among graduates and under-35s, only two-thirds are definite that climate change is happening. Among the over-65s and those with GCSE, equivalent or lower educational attainment, only half think that the world's climate is changing.

Table 2 Views on whether the world's climate is changing, by age and education level

	Age group			Highest education level			All
	18-34	35-64	65+	GCSE or Lower	Intermediate	Degree	
Climate is ...	%	%	%	%	%	%	%
... definitely changing	66	63	50	50	63	68	61
... probably changing	28	30	40	40	31	25	32
... probably not changing	5	4	7	6	5	5	5
... definitely not changing	1	2	1	2	1	1	1
<i>Unweighted base</i>	392	893	540	607	736	515	1858

Source: European Social Survey wave 8 (2016), British respondents aged 18+

Only about a third (36%) say that climate change is mainly or entirely caused by human activity

Causes of climate change

Successive reports from the Intergovernmental Panel on Climate Change (IPCC) have become increasingly confident that there is a clear human influence on the global climate. Their most recent report emphasises that the warming of the climate is unequivocal, and that it is extremely likely that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by humans (IPCC, 2014). Table 3 shows that when asking respondents whether they “think that climate change is caused by natural processes, human activity or both”, only about a third (36%) say that climate change is mainly or entirely caused by human activity. Most people think humans and natural causes are equally responsible. While the vast majority (95%) think that climate change is at least in part caused by human activity, it is equally true that a large majority (93%) think that climate change is at least partly

due to natural processes. By contrast, the IPCC's best estimate is that the human contribution to global warming is about the same as the actual observed global warming. On this basis, humans are not just mainly but entirely responsible. Perhaps because this estimate has not been effectively communicated, only 4% think that climate change is entirely due to humans; although, total scepticism about human involvement in creating climate change is, at 2%, also extremely rare.

Table 3 Views about whether climate change is caused by natural processes, human activity or both, by age and education level

	Age group			Highest education level			All
	18-34	35-64	65+	GCSE or Lower	Intermediate	Degree	
Cause of climate change	%	%	%	%	%	%	%
Entirely by human activity	7	3	3	5	3	5	4
Mainly by human activity	39	32	24	23	29	43	32
Equally human activity and natural processes	44	54	58	58	55	43	53
Mainly by natural processes	6	7	8	7	7	6	7
Entirely by natural processes	2	2	4	3	3	1	2
Definitely not happening	1	2	1	3	1	1	2
<i>Unweighted base</i>	<i>392</i>	<i>893</i>	<i>540</i>	<i>607</i>	<i>736</i>	<i>515</i>	<i>1858</i>

Source: European Social Survey wave 8 (2016), British respondents aged 18+

Answer options are presented in the table in reverse order to how they were presented to respondents

Younger people and graduates are more likely to say that climate change is mainly or entirely due to human activity, but even among graduates and the under-35s, this is not a majority viewpoint. Meanwhile, for the over-65s and the least educated, only 27% think climate change is mainly or entirely caused by human activity.

Consequences of climate change

If people do not appreciate that climate change is caused by humans, this might also be expected to affect the extent to which people think that climate change is a problem or not. The ESS asked people how good or bad they thought climate change would be for people around the world. The 2% who think the world's climate

is “definitely not changing” were not asked this and subsequent questions about climate change, apart from those on policy preferences in Table 14⁶.

Respondents were asked to give a score from 0, meaning extremely bad, to 10, meaning extremely good, to indicate what they thought the impact of climate change “will be on people across the world”. Two-thirds (66%) of those who gave any score gave one on the bad side 0-4, 18% said 5 (suggesting perhaps they thought it will be neutral or that they don’t know), and 16% gave a score of 6-10 – suggesting that they think that climate change has net positive consequences for humans.

Table 4 reports the mean scores for the perceived consequences of climate change “on people across the world” (full question text is available in the appendix to this chapter), according to different age and education groups. It is clear that, in line with their stronger beliefs in the existence of human-caused climate change, younger and more educated groups think that the consequences of climate change will be worse than older and less educated groups do. The age divide is particularly apparent among graduates (although caution needs to be applied, given the small sample size for the oldest age group) but less apparent within the group with the lowest levels of education.

Younger and more educated groups think the consequences of climate change will be worse than older and less educated groups

Table 4 Average scores for how good or bad people think the impact of climate change will be on people across the world, by age and education level

Mean of extremely bad (0) to extremely good (10)	Highest education level			All
	GCSE or Lower	Intermediate	Degree	
All	4.0	3.6	2.9	3.5
<i>Unweighted base</i>	590	724	507	1821
Age Group				
18-34	3.8	3.4	2.4	3.2
<i>Unweighted base</i>	90	185	113	388
35-64	3.9	3.7	3.0	3.5
<i>Unweighted base</i>	215	361	295	871
65+	4.3	3.8	3.6	4.0
<i>Unweighted base</i>	267	174	91	532

Source: European Social Survey wave 8 (2016), British respondents aged 18+

As we’ve seen in this section, the average person in Britain has given “some” thought to climate change. Most think that the world’s climate is “definitely” changing, and there is also a majority who hold the view that climate change is “about equally” caused by human activity and natural processes. On average, adults in Britain think that the impact of climate change for people around the world will only

⁶ Since there were only a few that chose this option, their exclusion makes little difference to the conclusions of our analyses.

be slightly on the bad side. This is a combination of opinions that suggests the average person in Britain accepts that climate change is a problem created by humans, but not a terribly damaging one.

Personal responses to climate change

In this section we consider how people respond to climate change, both in how they feel about it and in their personal behaviour.

Worry about climate change

The ESS asked respondents, “how worried are you about climate change?” Responses are shown in Table 5. The most popular response was “somewhat worried” (45%). Just over a quarter are not at all or not very worried (28%), and a quarter are very or extremely worried (25%). There is a very similar pattern of responses to a related question asking, “How worried are you that energy may be too expensive for many people in Britain?”. In fact, more people say they are very or extremely worried about the cost of energy (36%) than about climate change (25%).

 **More people say they are very or extremely worried about the cost of energy (36%) than about climate change (25%)** 

Table 5 Levels of worry about climate change, by age, education level, and climate change beliefs

	Age group			Highest education level		
	18-34	35-64	65+	GCSE or Lower	Inter-mediate	Degree
Level of worry	%	%	%	%	%	%
Extremely worried	7	5	6	5	4	9
Very worried	25	18	14	15	17	27
Somewhat worried	42	47	45	45	49	41
Not very worried	19	22	26	23	25	17
Not at all worried	6	5	8	9	4	6
Climate change not happening	1	2	1	3	1	1
<i>Unweighted base</i>	392	893	540	607	736	515

	Beliefs about climate change		All
	Climate change entirely/mainly human	Climate change not entirely/mainly human	
Level of worry	%	%	%
Extremely worried	11	3	6
Very worried	32	12	19
Somewhat worried	43	46	45
Not very worried	11	29	22
Not at all worried	3	7	6
Climate change not happening	-	3	2
<i>Unweighted base</i>	648	1210	1858

Source: European Social Survey wave 8 (2016), British respondents aged 18+

Answer options are presented in the table in reverse order to how they were presented to respondents

Those who think that climate change is mainly or entirely caused by humans are most worried by it

The greatest differences between groups are evident when you compare those saying “very” or “extremely” worried. Younger age groups and graduates are more likely to be worried about climate change, partly because they are more likely to believe in the existence of human-driven climate change. As Table 5 shows, those who think that climate change is mainly or entirely caused by humans are more worried. However, even among people with this view, only 42% indicate being very or extremely worried about climate change. 18-34 year olds and graduates are the age and educational groups that are most worried; in both cases around a third say they are very or extremely worried by climate change.

Feeling personal responsibility to reduce climate change

As well as differing in how worried they are about climate change, people may also feel different levels of personal responsibility to try to reduce climate change. Table 6 shows the average scores on a scale of personal responsibility for helping with climate change mitigation, where 0 means no responsibility and 10 means feeling a great deal of responsibility (full question wording can be found in the appendix to this chapter). The overall average score is 6.0, only slightly above the mid-point of 5. Responses are quite spread out across the scale, with scores from 5 to 8 being the most popular. Less than 10% give a score of 2 or less and 15% a score of 9 or 10. While most scores are above 5, they are also clustered around intermediate levels, suggesting that people only feel a moderate personal responsibility to help reduce climate change.

People only feel a moderate personal responsibility to help reduce climate change

Table 6 Average score for extent to which people feel personal responsibility to reduce climate change, by age, education level and climate change beliefs

Mean of not at all responsible (0) to a great deal responsible (10)	Highest education level			Beliefs about climate change		All
	GCSE or lower	Inter-mediate	Degree	Climate change entirely / mainly human	Climate change not entirely / mainly human	
All	5.4	6.0	6.7	6.8	5.6	6.0
<i>Unweighted base</i>	576	723	505	646	1158	1804
Age Group						
18-34	5.2	5.6	6.6	6.7	5.1	5.8
<i>Unweighted base</i>	88	185	112	169	216	385
35-64	5.7	6.2	6.8	7.0	5.9	6.3
<i>Unweighted base</i>	208	361	295	326	538	864
65+	5.3	6.0	6.4	6.6	5.4	5.7
<i>Unweighted base</i>	264	173	90	147	385	527

Source: European Social Survey wave 8 (2016), British respondents aged 18+

Responses to the question of personal responsibility are strongly linked to beliefs about the causes of climate change. Those who think climate change is mainly or entirely caused by humans feel more personally responsible for trying to mitigate it. Furthermore, as shown in Table 6, the more educated people are, the more likely they are to believe that climate change is mainly caused by humans, and thus the more likely to feel some sense of responsibility for resolving the problem. However, even after using regression analysis (not shown) to account for the correlation between education and beliefs about the causes of climate change, education still has an additional impact on feelings of responsibility. Also, while younger

people are more likely to believe in human responsibility for climate change, there is no correlation between age and feelings of personal responsibility for climate change mitigation. As Table 6 shows, reported feelings of personal responsibility among those who believe that climate change is entirely or mainly due to humans, and among those who do not, show a similar pattern across the different age groups (for example, the 35-64 year-old age group felt the highest level of personal responsibility across both of these groups). Beliefs about the causes of climate change only explain a small part of the differences in feelings of personal responsibility we observe.

Limiting personal energy use

Before introducing any questions about climate change, the ESS asked respondents how often they do things to reduce their energy use in their daily life, “such as switching off appliances that are not being used, walking for short journeys, or only using the heating or air conditioning when really needed.” The median response was that they “often” do things to reduce energy use, and just under half (47%) said they do so “very often” or “always”.

If beliefs and concerns about climate change motivate efforts to save energy, then we would expect to see younger and more educated people reporting doing things to save energy more often. Table 7 shows that the under 35s, rather than doing the most, are particularly less likely to say that they do things to save energy. Since they are more likely to live with their parents, or otherwise in shared accommodation, they might have less opportunity than over 35s to save energy. However, in response to a hypothetical question in the ESS, young people are also less likely to say they would buy an energy efficient appliance⁷.

⁷ The ESS question read, “If you were to buy a large electrical appliance for your home, how likely is it that you would buy one of the most energy efficient (in the sense of ‘using less energy’) ones?” Responses were on a scale of 0 meaning “Not at all likely” to 10 meaning “Extremely likely”.

Table 7 Frequency of limiting personal energy use, by age, education level and climate change beliefs

	Age group			Highest education level		
	18-34	35-64	65+	GCSE or Lower	Intermediate	Degree
Frequency of limiting personal energy use	%	%	%	%	%	%
Always	15	19	15	17	17	18
Very often	27	31	32	27	28	35
Often	29	27	28	27	31	26
Sometimes	24	18	19	21	20	18
Hardly ever	3	4	4	5	3	3
Never	2	1	2	2	1	*
Cannot reduce energy	*	*	*	*	*	0
<i>Unweighted base</i>	392	893	540	607	736	515

	Beliefs about climate change		All
	Climate change entirely /mainly human	Climate change not entirely /mainly human	
Frequency of limiting personal energy use	%	%	%
Always	18	17	17
Very often	32	29	30
Often	26	29	28
Sometimes	18	20	20
Hardly ever	4	4	4
Never	2	1	1
Cannot reduce energy	*	*	*
<i>Unweighted base</i>	648	1210	1858

Source: European Social Survey wave 8 (2016), British respondents aged 18+

Those who believe climate change is mainly or entirely caused by humans show only a modest tendency towards saving energy more often than other groups

It is not just with respect to age that the social divisions in beliefs and concerns about climate change do not translate into differences in personal action. Efforts to save energy only modestly increase with level of education. Part of the issue here is that energy-saving behaviours are only moderately linked to beliefs about climate change. Table 7 shows only a slight tendency towards saving energy more often for those who believe climate change is mainly or entirely caused by humans. Indeed, this tendency is only statistically significant for those who believe climate change is entirely, not just

mainly, the result of human activity (regression analysis not shown). Personal decisions about energy use are affected by a variety of other factors; and ambitions to mitigate climate change may only be one of them.

Personal efficacy

One of the reasons why beliefs and worry about climate change may not necessarily translate into action could be that some people think that whatever action they themselves could take may not make a difference. Table 8 confirms that people are not convinced that reducing the amount of energy they use would be effective. When asked “how likely (on a scale from 0 meaning “not at all likely” to 10 meaning “extremely likely”) do you think it is that limiting your own energy use would help reduce climate change?” the average score is 4.4. This is below the mid-point, suggesting a low level of confidence in personal efficacy.

People are not convinced that reducing the amount of energy they use would be effective in reducing climate change

Table 8 Views on likelihood that limiting own energy use would help reduce climate change, by age, education and climate change beliefs

Mean from not at all likely (0) to extremely likely (10)	Highest education level			Beliefs about climate change		All
	GCSE or lower	Intermediate	Degree	Climate change entirely / mainly human	Climate change not entirely / mainly human	
All	4.3	4.3	4.5	4.7	4.2	4.4
<i>Unweighted base</i>	576	716	506	642	1156	1798
Age Group						
18-34	4.3	4.1	4.5	4.4	4.2	4.3
<i>Unweighted base</i>	89	183	112	167	217	384
35-64	4.5	4.5	4.7	4.9	4.4	4.6
<i>Unweighted base</i>	210	359	295	326	538	864
65+	4.2	4.2	3.5	4.7	3.9	4.1
<i>Unweighted base</i>	262	170	91	145	378	523

Source: European Social Survey wave 8 (2016), British respondents aged 18+

Table 8 shows that feelings of personal efficacy do not follow the same age and education patterns as for climate change beliefs and concerns. Feelings of efficacy are slightly greater among graduates than those with less educational attainment, but only among those of working age. Graduates over 65 have the lowest average scores of all the groups in the table – although we should be cautious about this finding, given the small sample size involved. Overall, with regard to age, those aged 35-64 have the highest level of personal efficacy, followed by those aged 18-34.

On average, people in Britain are only “somewhat worried” about climate change, and do not feel a strong sense of personal responsibility to try to reduce it

Feelings of personal efficacy are greater for those who believe that climate change is mainly or entirely due to humans than for those who think that natural processes play an equal or greater part. But that relationship is fairly weak. Table 8 shows only a 0.5 average difference. So it is not surprising that social divisions in feelings regarding personal efficacy do not necessarily follow the same pattern as those for climate change beliefs and concerns. We can't be sure why we observe this pattern; it may be that the weak linkage between beliefs about the causes of climate change and feelings of personal efficacy depends on a deeper attitude or set of values regarding personal efficacy.

Overall, these findings reveal that, on average people in Britain are only “somewhat worried” about climate change, and they do not feel a strong sense of personal responsibility to try to reduce it. Although people on average do not strongly feel that by reducing their own energy use they can help reduce climate change, they do report “often” doing things to save energy, but not necessarily in an attempt to reduce climate change. The consistent age and education gaps that were observed for beliefs and worry about climate change, do not extend to feelings of responsibility, efficacy, and, perhaps most importantly, energy-saving behaviour. On these variables, the education gap is smaller and a different pattern emerges with respect to age. Even if the young are more likely to believe and to be worried about climate change, it is the 35-64 year olds who feel the most responsible and efficacious, and report reducing their energy use the most often.

Climate change as a collective issue

Climate change is a global challenge. As a result, climate change mitigation is not only a matter of individuals acting alone; it is hard to imagine a solution without both people acting collectively and government intervention. This section considers the extent to which people feel climate change might be addressed by either.

Collective efficacy on climate change

Before asking about the prospects for collective action, the ESS asked a question designed to capture the extent to which people believe that large-scale collective action by individuals would actually reduce climate change. Specifically, it asked, “Now imagine that large numbers of people limited their energy use. How likely do you think it is that this would reduce climate change?” Responses are on a scale from 0 meaning “not at all likely” to 10 meaning “extremely likely”. The distribution of scores is fairly similar to the one for the question on personal efficacy, but with a slightly higher average overall. Naturally enough, people think that lots of people limiting their energy use will have more effect than just one person doing so. However, while the average score for collective efficacy (5.8) is clearly higher

than that for personal efficacy (4.4), it is surprising that the gap is not much wider.

Table 9 shows that younger people are much more likely to think that large numbers of people limiting energy use would be effective. By contrast, responses are not consistently associated with education since there are different patterns by education within the different age groups. However, there is a modest difference in responses between men and women, with women reporting a greater sense of collective efficacy (6.0) than men (5.6). Also, the more someone thinks that climate change is due to humans, the more they think humans can collectively do something about it.

Younger people are much more likely to think that large numbers of people limiting energy use would be effective in reducing climate change

Table 9 Views about likelihood that large numbers of people limiting their energy use would reduce climate change, by age, education level and climate change beliefs

Mean from not at all likely (0) to extremely likely (10)	Highest education level			Beliefs about climate change		All
	GCSE or lower	Inter-mediate	Degree	Climate change entirely /mainly human	Climate change not entirely / mainly human	
All	5.7	5.7	6.0	6.4	5.4	5.8
<i>Unweighted base</i>	570	712	504	638	1148	1786
Age Group						
18-34	5.9	5.9	6.3	6.6	5.5	6.0
<i>Unweighted base</i>	87	178	112	165	212	377
35-64	5.8	5.7	6.0	6.4	5.5	5.8
<i>Unweighted base</i>	209	360	293	326	536	862
65+	5.4	5.5	5.4	6.1	5.2	5.4
<i>Unweighted base</i>	261	170	91	144	378	522

Source: European Social Survey wave 8 (2016), British respondents aged 18+

Will large numbers of people limit their energy use?

Having asked a hypothetical question about the potential effectiveness of collective action, the ESS asked respondents how they rate the chances of large numbers of people actually limiting their energy use. Specifically, the question was, “How likely do you think it is that large numbers of people will actually limit their energy use to try to reduce climate change?” Table 10 shows that the average answer on a scale from 0 meaning “not at all likely” to 10 meaning “extremely likely” is 3.8, well below the scale mid-point of 5. Overall, people are not terribly optimistic that lots of people will take it upon themselves to reduce their energy consumption in a collective effort against climate change.

Table 10 Views about likelihood that large numbers of people will limit their energy use to reduce climate change, by age, education level and climate change beliefs

Mean from not at all likely (0) to extremely likely (10)	Highest education level			Beliefs about climate change		All
	GCSE or lower	Intermediate	Degree	Climate change entirely /mainly human	Climate change not entirely / mainly human	
All	4.0	3.7	3.7	3.7	3.8	3.8
<i>Unweighted base</i>	574	717	505	641	1155	1796
Age Group						
18-34	3.7	3.3	3.7	3.4	3.5	3.5
<i>Unweighted base</i>	89	180	112	166	215	381
35-64	4.2	3.8	3.6	3.7	3.8	3.8
<i>Unweighted base</i>	209	360	294	326	537	854
65+	4.1	4.1	3.9	4.1	4.0	4.0
<i>Unweighted base</i>	263	173	91	146	381	598

Source: European Social Survey wave 8 (2016), British respondents aged 18+

Despite having the most positive view of collective action, young people and graduates are relatively more pessimistic about whether humans will fulfil this potential. Overall, differences between age groups and those with different levels of education explain little of the variation in expectations on this issue. Similarly, there is only a very weak relationship between views about the causes of climate change and expectations for collective action. If anything, the more someone thinks that climate change is the result of human activity the more pessimistic they are about the prospects of large numbers of people limiting their energy use in an attempt to mitigate climate change, but that correlation is not statistically significant.

Will governments in enough countries take action?

If individuals are thought unlikely to take much action, then maybe people in Britain expect governments to intervene instead. The ESS asked “How likely do you think it is that governments in enough countries will take action that reduces climate change?”. This question elicited slightly more positive responses than the previous question on the same scale of 0 “not at all likely” to 10 “extremely likely”. The average (4.3) is only just above the average for the response regarding the chances of large numbers of people limiting their energy use (3.8), but still below the scale mid-point of 5. A score of 4.3 indicates relatively little faith that sufficient governments will take action to reduce climate change. Table 11 shows that average expectation does not systematically differ by age, education or even beliefs in human-driven climate change.

People have relatively little faith that sufficient governments will take action to reduce climate change

Table 11 Views about likelihood that governments in enough countries will take action that reduces climate change, by age, education level and climate change beliefs

Mean from not at all likely (0) to extremely likely (10)	Highest education level			Beliefs about climate change		All
	GCSE or lower	Intermediate	Degree	Climate change entirely /mainly human	Climate change not entirely / mainly human	
All	4.4	4.3	4.3	4.2	4.3	4.3
<i>Unweighted base</i>	562	711	504	637	1140	1777
Age Group						
18-34	4.4	4.2	4.1	4.3	4.2	4.2
<i>Unweighted base</i>	85	179	112	166	210	376
35-64	4.5	4.2	4.4	4.2	4.4	4.3
<i>Unweighted base</i>	207	360	293	325	535	860
65+	4.4	4.6	4.1	4.3	4.4	4.4
<i>Unweighted base</i>	257	168	91	143	373	516

Source: European Social Survey wave 8 (2016), British respondents aged 18+

To summarise, using a scale from 0 “not at all likely” to 10 “extremely likely”, people give an average score of 4.4 for the chances that limiting their own energy use would reduce climate change; 5.8 for the chances that climate change would be reduced if large numbers of people reduced their energy use; 3.8 for the chances that large numbers of people will *actually* limit their energy use; and 4.3 for the chances that governments in enough countries will take action that reduces climate change. Overall people in Britain have some hope that climate change could be reduced, but they are not very confident that it will actually happen.

Political divisions

In the following section we explore whether age and education divisions in climate change beliefs and concerns echo patterns of support for Brexit and for the political parties shown in the Voting chapter (Curtice and Simpson) and Europe chapter (Curtice and Tipping). Given that Leave voters had gradually moved towards the Conservatives and Remain voters to Labour by the time of the ESS in late 2016, a consequence of post-referendum politics in Britain may be that the parties have become divided on climate change. In this section we first consider the similarity between divisions over climate change and those over Brexit before turning to partisan divides.

Brexit

The ESS asked respondents how they voted in the June 2016 referendum on the UK's membership of the European Union. Table 12 below shows the climate change worry responses (explored earlier in Table 5) by whether people voted for the UK to leave or remain a member of the European Union. Those who voted leave are much less likely to be very or extremely worried about climate change (17%) than those who voted for the UK to remain (32%). This partly reflects a more fundamental divide with respect to belief in the existence of climate change. Some 71% of Remain voters think that climate change is definitely happening, compared with just 53% of Leave voters.

71% of Remain voters think that climate change is definitely happening, compared with just 53% of Leave voters

Table 12 Level of worry about climate change, by Brexit vote

	All	Remain	Leave
Level of worry	%	%	%
Extremely worried	6	6	4
Very worried	19	26	12
Somewhat worried	45	48	46
Not very worried	22	15	29
Not at all worried	6	3	7
<i>Unweighted base</i>	1858	679	692

Source: European Social Survey wave 8 (2016), British respondents aged 18+

Answer options are presented in the table in reverse order to how they were presented to respondents

Partisan divides

The ESS asked respondents if there was any political party they felt “closer to than all the others”, and if so which. Respondents were additionally asked which party they voted for at the last (2015) election. As a measure of which party they support we use the party they said they were closest to, if there was one, and, if not, the party voted for. This still leaves some 22% of those who neither voted in 2015 nor felt closer to one party than any of the others. These people come under the category “None” in Table 13, and, based on previous research, can be considered disproportionately disinterested or disengaged with politics. This group, just like Conservative supporters (34%), are relatively more likely to say that they are not at all or not very worried about climate change (33%). However, in accordance with previous research (Carter and Clements, 2015), supporters of the UK Independence Party (UKIP) are the least worried, with 48% indicating that they are either not very or not at all worried.

Table 13 Level of worry about climate change, by party identification

		Extremely worried	Very worried	Somewhat worried	Not very worried	Not at all worried	Unweighted base
All	%	6	19	45	22	6	1858
Party identification							
Conservative	%	3	15	47	28	5	548
Labour	%	6	23	48	17	4	512
Liberal Democrats	%	6	29	51	9	2	130
Scottish National Party	%	5	22	44	25	3	57
Green Party	%	28	23	40	11	-	53
UKIP	%	4	9	35	40	8	114
None	%	6	17	42	23	10	414

Source: European Social Survey wave 8 (2016), British respondents aged 18+

Green party supporters are the most concerned, with 52% reporting to be very or extremely worried about climate change. Liberal Democrats are also clearly on the concerned side, with 35% saying that they are either very or extremely worried. Labour and Scottish National Party (SNP) supporters are more divided, and overall less worried than Greens and Liberal Democrats (though results for the SNP and Greens should be viewed with caution due to the small sample sizes involved).

Similar party differences are present in terms of the climate change beliefs discussed earlier (see Table 5). These are not merely a reflection of social differences in age, education and sex, as the effects remain after controlling for socio-demographic characteristics in a regression analysis (not shown). There are also party differences with regard to the questions on collective action. However, they follow a different pattern. For instance, Green party supporters have more confidence in the power of collective action than supporters of other parties, but are also more pessimistic than others about the prospects of large numbers of people actually limiting their energy use. Party differences are almost absent regarding the questions on personal energy saving efficacy and behaviour, with the exception that non-voters are less likely to save energy. Green party supporters are equally as likely as other party supporters to say that they often save energy, although they might be setting themselves higher standards as to what counts as “often”.

We cannot tell whether the differences we describe above are due to people with different attitudes to climate change choosing different parties, the influence of people’s preferred parties on the opinions of their supporters, or some combination. There are instances in British history when parties and their leaders provoked large-scale change

in the opinions of their supporters. By analysing BSA survey data, Curtice and Fisher (2003) showed that Blair moved the economic policy preferences of Labour party supporters to the right. But they also showed that Thatcher failed to achieve the same effect, within her party or more broadly, despite her efforts to do so. Since it is hard for leaders to change the public's mind, and there has been remarkably little effort from mainstream politicians to exercise environmental leadership, we assume that individuals with different attitudes chose different parties. That does however not mean that they are necessarily choosing the party because of their opinion on climate change. With the exception of the Green party, it is more likely that people chose parties based on other considerations which happen to be correlated with climate change opinions. For instance, people increasingly choose between Labour and the Conservatives based on their attitudes to Brexit (Curtice, 2017), which, as we have seen above, are linked to attitudes to climate change.

But while age, education and partisan divisions on climate change beliefs, concerns and policy preferences mirror the divisions on Brexit, the gaps are much smaller. Britain and the political parties are much more polarised on the issues most pertinent to the Brexit vote than they are on climate change policy.

Not only are the main partisan divisions on climate change beliefs and concerns relatively modest, but partisan divisions on climate change mitigation policy tend to be even smaller. There is little in the ESS to suggest that, for example, a Labour government would be pressured by their own voters for much stronger climate change mitigation policy than the Conservatives. Table 14 shows that support for climate change mitigation policies is only slightly higher for Labour voters than it is for Conservative voters, but not by much. There are no decisive differences indicating support for a policy among one party's supporters but not another's. For both parties, only a minority support more taxation of fossil fuels, and for both parties there is majority support for both renewable subsidies and a ban on inefficient appliances.

Support for climate change mitigation policies is only slightly higher for Labour voters than for Conservative voters

Table 14 Favourability of measures to reduce climate change, by party identification

	Fossil fuel tax			Renewable energy subsidies		
	Conservative	Labour	All	Conservative	Labour	All
Level of favour	%	%	%	%	%	%
Strongly in favour	5	11	8	17	29	24
Somewhat in favour	30	31	28	51	43	44
Neither in favour nor against	22	23	25	15	13	17
Somewhat against	32	22	24	13	9	10
Strongly against	11	12	13	4	5	4
<i>Unweighted base</i>	<i>548</i>	<i>512</i>	<i>1858</i>	<i>548</i>	<i>512</i>	<i>1858</i>

	Ban energy-inefficient household appliances		
	Conservative	Labour	All
Level of favour	%	%	%
Strongly in favour	17	19	18
Somewhat in favour	45	39	38
Neither in favour nor against	16	22	21
Somewhat against	15	14	15
Strongly against	7	4	6
<i>Unweighted base</i>	<i>548</i>	<i>512</i>	<i>1858</i>

Source: European Social Survey wave 8 (2016), British respondents aged 18+

Nothing here suggests radically different internal policy pressures for Labour compared with the Conservatives. If a Labour-led government were to depend for parliamentary support on the Greens, Scottish National Party and the Liberal Democrats, the pressure for pro-environmental policy from the government's own supporters would be somewhat greater than with a majority Labour government. But still, environmental policies are relatively unimportant to all but the Greens and Liberal Democrats, and those are very small parties in terms of parliamentary seats.

Conclusions

This chapter has shown that most people in Britain have given at least some thought to the issue of climate change, and also that most think it is definitely happening. Total scepticism about the existence of climate change is rare, as is the belief that climate change is entirely due to natural causes. But most do not think that

Most people do not think that climate change is mainly caused by humans or that the consequences will be very bad

climate change is mainly caused by humans, and do not think the consequences will be very bad. The majority of people are only somewhat worried about it. In fact, people are rather less worried about climate change than they are about energy becoming too expensive.

Accordingly, people are ambivalent about taxing energy from fossil fuels, which could clearly impose a cost on them. They are notionally supportive of subsidies for renewables and bans on energy inefficient appliances, although our survey questions did not point out that those policies would come at a cost.

Overall, it appears that Britain is relatively relaxed about climate change, and not strongly divided over it. There are more worried than there are sceptical individuals, but the majority in Britain appears to have fairly middling attitudes towards climate change. They know about it, and acknowledge a human component, but are overall relatively indifferent and apathetic about climate change (Barasi, 2017).

Differences by age and education are reasonably strong and consistent when it comes to beliefs and concerns about climate change and what the government should do about it, but they do not extend to feelings of personal ability to make a difference or their own efforts to save energy. What divisions there are on other socio-demographic variables, such as sex, ethnicity, and income, are typically fairly weak and sporadic.

There are, however, noticeable and consistent differences between supporters of different parties in how they think about climate change, as well as according to attitudes to Brexit. With this kind of survey we cannot properly assess if people are choosing their parties based on their attitudes to climate change, or whether parties are leading their voters towards certain views on climate change. It may also be that people are choosing parties more based on their attitudes to Brexit and related cultural issues, especially immigration. Opinion on those issues is correlated with attitudes to climate change. And so the Labour partisans are more climate-conscious than Conservatives, not necessarily because they chose their party based on environmental considerations, but more likely because their climate change attitudes go hand in hand with their Brexit and other attitudes. Although it was still on a modest scale, since late 2016 and early 2017 when the ESS took place, at both the 2017 general election and in the 2018 local elections, we have seen swings from Labour to Conservative among Leave supporters and in the opposite direction among Remain voters (Curtice, 2018). Climate change may well become more of a partisan political football because of Brexit.

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References

- Barasi, L. (2017), *The Climate Majority*, London: The New Internationalist
- Barasi, L., and Harding, R. (2017), “Climate Concern and Pessimism: Examining Public Attitudes Across Europe”, National Centre for Social Research, available at: <http://natcen.ac.uk/media/1513272/ESS-Climate-Change-report-FINAL.pdf>
- Campbell, T. H., and Kay, A. C. (2014), ‘Solution aversion: On the relation between ideology and motivated disbelief’, *Journal of Personality and Social Psychology*, **107**(5), 809–824
- Cook, J., Oreskes, N., Doran, P. T., Anderegg, W. R. L., Verheggen, B., Maibach, E. W., and Rice, K. (2016), ‘Consensus on consensus: a synthesis of consensus estimates on human-caused global warming’, *Environmental Research Letters*, **11**(4), 48002
- Carter, N., and Clements, B. (2015), ‘From “Greenest Government Ever” to “Get Rid of All the Green Crap”’: David Cameron, the Conservatives and the Environment’, *British Politics*, **10**(2): 204–25
- Curtice, J. (2017), ‘The vote to leave the EU: Litmus test or lightning rod?’, in Clery, E., Curtice, J. & Harding, R. (eds.), *British Social Attitudes: The 34th Report*, London: National Centre for Social Research
- Curtice, J. (2018), ‘How Brexit Shaped the Local Election Vote’, *What UK Thinks*, the National Centre for Social Research, available at: <http://whatukthinks.org/eu/how-brex-it-shaped-the-local-election-vote>
- Curtice, J. and Fisher, S.D. (2003), ‘The Power to Persuade? A Tale of Two Prime Ministers’, in Park, A., Curtice, J., Thomson, K., Jarvis, L. and Bromley, C. (eds.), *British Social Attitudes: The 20th report – Continuity and change over two decades*, London: Sage
- Dunlap, R. E., McCright, A. M., & Yarosh, J. H. (2016), ‘The Political Divide on Climate Change: Partisan Polarization Widens in the U.S.’, *Environment: Science and Policy for Sustainable Development*, **58**(5), 4–23, available at: <http://doi.org/10.1080/00139157.2016.1208995>

Intergovernmental Panel on Climate Change (2014), *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, IPCC, Geneva, Switzerland: Intergovernmental Panel on Climate Change

McCright, A. M., Dunlap, R. E., and Marquart-Pyatt, S. T. (2016), 'Political ideology and views about climate change in the European Union', *Environmental Politics*, **25(2)**, 338–358, available at: <http://doi.org/10.1080/09644016.2015.1090371>

Oreskes, N., and Conway, E. M. (2010), *Merchants of Doubt*, London: Bloomsbury Press

Painter, J., and Ashe, T. (2012), 'Cross-national comparison of the presence of climate scepticism in the print media in six countries, 2007–10', *Environmental Research Letters*, **7(4)**, 44005, available at: <http://stacks.iop.org/1748-9326/7/i=4/a=044005>

Poortinga, W., Spence, A., Whitmarsh, L., Capstick, S., and Pidgeon, N. F. (2011), 'Uncertain climate: An investigation into public scepticism about anthropogenic climate change', *Global Environmental Change*, **21(3, SI)**, 1015–1024, available at: <http://doi.org/10.1016/j.gloenvcha.2011.03.001>

Taylor, E. (2012), 'Environment: concern about climate change: a paler shade of green?', Park, A., Clery, E., Curtice, J., Phillips, M. and Utting, D. (eds.) (2012), *British Social Attitudes: The 28th Report*, London: Sage, available at: <http://bsa.natcen.ac.uk/latest-report/british-social-attitudes-28/environment.aspx>

United Nations Framework Convention on Climate Change (2015), *Adoption of the Paris Agreement. Report No. FCCC/CP/2015/L.9/Rev.1*, Paris: United Nations Framework Convention on Climate Change

Whitmarsh, L. (2011), 'Scepticism and uncertainty about climate change: Dimensions, determinants and change over time', *Global Environmental Change*, **21(2)**, 690–700. available at: <http://doi.org/10.1016/j.gloenvcha.2011.01.016>

Appendix

The full question wording for the data presented in Table 4 is as follows:

How good or bad do you think the impact of climate change will be on people across the world? Please choose a number from 0 to 10, where 0 is extremely bad and 10 is extremely good.

(Answer scale from 0 = Extremely bad, to 10 = Extremely good)

The full question wording for the data presented in Table 6 is as follows:

To what extent do you feel a personal responsibility to try to reduce climate change?

(Answer scale from 0 = Not at all, to 10 = A great deal)

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