

Reporting Summary

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Statistics

For all statistical analyses, confirm that the following items are present in the figure legend, table legend, main text, or Methods section.

n/a Confirmed

- ☐ ☒ The exact sample size (n) for each experimental group/condition, given as a discrete number and unit of measurement
- ☐ ☒ A statement on whether measurements were taken from distinct samples or whether the same sample was measured repeatedly
- ☐ ☒ The statistical test(s) used AND whether they are one- or two-sided
Only common tests should be described solely by name; describe more complex techniques in the Methods section.
- ☐ ☒ A description of all covariates tested
- ☐ ☒ A description of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons
- ☐ ☒ A full description of the statistical parameters including central tendency (e.g. means) or other basic estimates (e.g. regression coefficient) AND variation (e.g. standard deviation) or associated estimates of uncertainty (e.g. confidence intervals)
- ☐ ☒ For null hypothesis testing, the test statistic (e.g. F , t , r) with confidence intervals, effect sizes, degrees of freedom and P value noted
Give P values as exact values whenever suitable.
- ☒ ☐ For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings
- ☐ ☒ For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes
- ☐ ☒ Estimates of effect sizes (e.g. Cohen's d , Pearson's r), indicating how they were calculated

Our web collection on [statistics for biologists](#) contains articles on many of the points above.

Software and code

Policy information about [availability of computer code](#)

Data collection YouGov used their own proprietary surveying software to conduct the survey (not a separately named software package). The responses were exported as an anonymised SPSS file (.sav).

Data analysis We used SPSS (version 27) and Mplus (version 8.3) to conduct our data analysis - SPSS for basic relationships and descriptive statistics, and Mplus for the latent growth curve modelling.

For manuscripts utilizing custom algorithms or software that are central to the research but not yet described in published literature, software must be made available to editors and reviewers. We strongly encourage code deposition in a community repository (e.g. GitHub). See the Nature Research [guidelines for submitting code & software](#) for further information.

Data

Policy information about [availability of data](#)

All manuscripts must include a [data availability statement](#). This statement should provide the following information, where applicable:

- Accession codes, unique identifiers, or web links for publicly available datasets
- A list of figures that have associated raw data
- A description of any restrictions on data availability

The datasets used and analysed during the current study are available from the corresponding author upon reasonable request. The data sets will be deposited with the UK Data Service and the UK's National Geoscience Data Centre in February 2023.

Field-specific reporting

Please select the one below that is the best fit for your research. If you are not sure, read the appropriate sections before making your selection.

☐ Life sciences ☒ Behavioural & social sciences ☐ Ecological, evolutionary & environmental sciences

For a reference copy of the document with all sections, see [nature.com/documents/nr-reporting-summary-flat.pdf](https://www.nature.com/documents/nr-reporting-summary-flat.pdf)

Behavioural & social sciences study design

All studies must disclose on these points even when the disclosure is negative.

Study description	The data come from four waves of a longitudinal survey of a representative sample of the UK general public, run in April 2019, June 2020, May 2021, and May 2022 administered by the online survey panel provider YouGov. The survey was designed to measure public attitudes and responses to energy development in the UK. The data reported herein are all quantitative, mostly measured on Likert-type scales, but with ratio scale and dichotomous demographic covariates.
Research sample	The first wave of the survey was constrained with quotas to represent the UK population on: age, sex, UK census region of residence, social grade, education, party vote in the 2017 general election, vote in the 2016 EU (Brexit) referendum, and attention paid to politics. Therefore, this was a 'representative' sample based on the aforementioned variables. Although attrition occurred between waves, the samples varied little on the quota variables, leaving a mostly representative sample in wave 4 (the only deviation was that the sample remaining at wave 4 was somewhat older in profile than the UK). We chose a representative sample because the general population's views are most salient for questions of public policy direction and communication on climate change. This research was funded by UKRI as part of a grant examining UK populations.
Sampling strategy	The sample was randomly drawn from YouGov's online panel, with the constraint that it was selected to reflect the population values on the aforementioned quota variables. The data presented in this survey are from a 4-wave longitudinal survey. The initial sample size was chosen as a conservative estimate of what would allow for us to maintain a sample size of approximately 1000 in the fourth wave - three years later - due to attrition in the sample over time. We sought the 1000 size, due to seeking to conduct comparisons across socio-demographic and geographical groups within the survey.
Data collection	The survey was conducted online, via YouGov's panel and surveying software.
Timing	8-12 April 2019, 16-30 June 2020, 28 April - 16 May 2021, 23 May - 6 June 2022
Data exclusions	In reporting mean values, and running our multivariate data analysis (structural equation models), we treat 'don't know' responses on linear variables as missing data. All sample sizes are reported in the manuscript (Table 1). Between 0 and 177 missing data points existed for each of the 32 survey items reported (see Table 1). After excluding survey respondents with missing data and 'don't know' responses, we had a final sample of n=963 for our baseline latent growth model and n=737 for our conditional growth model.
Non-participation	The amount of respondents dropping out between waves of the survey is reported in the manuscript. For a four-wave longitudinal survey from an online panel, we consider the attrition as low as could be reasonably expected. We checked (and report in the methods section) the demographics of the final sample to the demographics of the initial representative sample. The 2,777 respondents to the initial survey were invited to a follow-up survey 14 months later, which attracted 1,858 respondents (67% from 2019). The respondents to the second survey were invited to another follow-up survey 11 months later, attracting 1,439 respondents (52% from 2019). Finally, of the wave 3 respondents, 1,000 responded 12 months later (36% from 2019).
Randomization	For the items reported on in this manuscript, respondents were not assigned to randomised groups.

Reporting for specific materials, systems and methods

We require information from authors about some types of materials, experimental systems and methods used in many studies. Here, indicate whether each material, system or method listed is relevant to your study. If you are not sure if a list item applies to your research, read the appropriate section before selecting a response.

Materials & experimental systems

n/a	Involved in the study
☒	☐ Antibodies
☒	☐ Eukaryotic cell lines
☒	☐ Palaeontology and archaeology
☒	☐ Animals and other organisms
☐	☒ Human research participants
☒	☐ Clinical data
☒	☐ Dual use research of concern

Methods

n/a	Involved in the study
☒	☐ ChIP-seq
☒	☐ Flow cytometry
☒	☐ MRI-based neuroimaging

Human research participants

Policy information about [studies involving human research participants](#)

Population characteristics	See above for most details. The survey sample was constrained with quotas to represent the UK population on: age, sex, UK census region of residence, social grade, education, party vote in the 2017 general election, vote in the 2016 EU (Brexit) referendum, and attention paid to politics.
Recruitment	Participants were recruited by the recognised online panel provider YouGov. We contracted with YouGov for them to run the longitudinal survey with their panel, using their software.
Ethics oversight	Human subjects approval for the survey research was granted by the Ethics Committees of the School of Social and Political Sciences at the University of Edinburgh and the Geography department at the University of Exeter.

Note that full information on the approval of the study protocol must also be provided in the manuscript.