

# Britain Talks Climate

## Methodology

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## Data collection and fieldwork

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The findings described in this toolkit come from a collaboration between Climate Outreach, the European Climate Foundation (ECF), More in Common and YouGov. A combination of quantitative and qualitative research methods were deployed through surveys, focus groups, and one-on-one interviews. All project partners collaborated on the survey design and fieldwork. The data generated through the initial quantitative survey was then analysed to identify distinctive segments within the British population, based on More in Common's core belief model. More in Common published its report [Britain's Choice](#) in October 2020. Climate Outreach developed Britain Talks Climate with the support of ECF.

- Original survey: 10,385 British adults (February-March 2020)
- All subsequent surveys were conducted among recontacted subsets of this initial group:
  - 2,010 British adults (May 2020)
  - 2,060 British adults (September 2020)
- Qualitative research: 12 focus groups and 35 in-depth interviews (April-August 2020)

## Cluster analysis

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Cluster analyses allow us to identify patterns in people's core values, highlighting similarities and differences that would not be captured by looking only at demographic and political splits. The seven segments were created using the following steps:

### Step 1: Select input variables

YouGov and More in Common selected 'segmentation variables' during the questionnaire design stage, based on theoretical considerations, prior experience in other countries, and using scales derived from existing research in political science and psychology. These segmentation scales included the following:

- **Moral foundations:** The extent to which people endorse certain moral values, including fairness, care, purity, authority and loyalty.
- **Authoritarian personality:** People's approach to parenting, which it has been suggested has important predictive power in explaining attitudes towards more general public policies.
- **Agency/meritocracy:** The extent to which people view personal success as the product of individual factors such as hard work and discipline, compared to societal factors such as luck and circumstance.
- **Perceived threat:** The extent to which people see the world as a dangerous place.
- **Perceived victimhood:** The extent to which people feel that others are treated better than they are.
- **Politics:** including political participation measures, such as the Heath index of political ideology.

**Step 2: Standardise the variable scales.**

YouGov identified latent factors using factor analyses (aggregating items that have a similar underlying concept) in the input variables. This method allows standardisation across different measurement scales (binary, ordinal data with varying scale points), and constructs factors using continuous numeric data. This also ensures that underlying themes in the data are given equal importance in the clustering (for instance, that topics measured with four questions are treated fairly next to topics measured with 10 questions), and that variables that have been theoretically identified as more important can be given additional weighting.

The final set of factors used in the cluster analysis included nine latent variables (three political participation factors, one moral foundation factor and five attitudinal factors). The political participation and moral foundations items were transformed to correct for skewed data.

**Step 3: Cluster analysis.**

We tested three general techniques for clustering respondents (k-centroids, hierarchical, and finite mixture clustering), generating a large number of possible solutions, which were then assessed against three criteria: 1) subjective interpretability, 2) ability to predict various behavioural and attitudinal outcomes, and 3) reliability in resampling procedures. Constraints were set on cluster size and number of clusters, as extremely large and small clusters were unlikely to be practically useful; a solution with more than eight or fewer than four clusters was also unlikely to be useful.

The solutions were refined iteratively by YouGov, More in Common, ECF and Climate Outreach, in a process that aimed to identify the optimum solution (i.e., the most informative and meaningful segments). The final cluster solution was a seven-cluster k-means solution, using weighted data, Euclidean distance and the kmeans++ algorithm for cluster initialisation.

**Step 5: Name the clusters.**

Names were assigned to each cluster after extensive reviews and consultation, based on their most relevant and distinctive characteristics.

**Step 6: Identify golden questions.**

YouGov identified the original survey items that were the strongest predictors of cluster membership (the 'golden questions'). These were selected using an initial multinomial logistic regression with cluster membership as the dependent variable, where variables were eliminated using backwards stepwise selection (removing the items that had the highest p-values), followed by a more intensive machine-learning method (k-fold cross-validation), eliminating variables one at a time and ranking variables based on their contribution to prediction.

The final set of 16 questions have a 76% accuracy level, with a minimum class recall of 70%.