The left-right positions of British MPs inferred from a survey of local councillors*

Chris Hanretty (1)[†]
Royal Holloway, University of London chris.hanretty@rhul.ac.uk

Vasil Lazarov
Royal Holloway, University of London
Survation
vasil.lazarov@survation.com

ABSTRACT We present local councillors in England, Wales and Scotland with pairwise comparisons between MPs in their local area and two anchor MPs and ask them to identify the more left-wing MP on economic issues. We infer MPs' positions on the left-right dimension from the responses to these pairwise choices. The estimates of MPs' positions have good face validity, and can be used to study the effects of MPs' position on behaviour in the party and in the legislature.

KEYWORDS expert survey; ideal points; ordinal regression

Introduction

The measurement of actors' positions in political space is a key task of political science. Most effort has been spent on estimating the positions of parties in a one-dimensional, left-right, political space; but for polities which use candidate-centred electoral systems, or which have politically relevant within-party disagreement, knowing the positions of individual legislators is also important. Unfortunately, measuring individual legislators' positions is difficult outside of a small number of countries. Most legislators do not issue personal manifestos or policy platforms (cf. Catalinac, 2018), meaning we cannot scale legislators in the same way the Comparative Manifesto Project scales political parties. Although legislators do talk and vote in parliaments, these acts are often strategic: scaling

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[†]Corresponding author.

techniques used successful to analyse congressional roll-calls can fail to recover left-right positions where there are strong government-opposition dynamics and where extremes of left and right join together to vote against the middle (Spirling & McLean, 2007). The analysis of legislative speech generally also tends to recover government-opposition dynamics more than left-right position (Lauderdale & Herzog, 2016). Whilst expert surveys have proved tremendously useful in the study of party systems, few political scientists would be able to place hundreds of MPs on an interval scale with as much equanimity as they place parties, and those expert assessments that exist are typically fairly coarse-grained (Heppell, 2013).

In this note, we provide estimates of the economic left-right positions of British MPs in the 2019-2024 parliament. Estimating the positions of British legislators is important because within-party disagreement in Britain has been increasing over time, and because MPs' preferences have strongly conditioned or determined the identity of the last four British prime ministers. We estimate positions on the basis of a survey of local councillors. We presented councillors with up to six pairwise comparisons between MPs in their local area and two "anchor" MPs (Prime Minister Rishi Sunak and Labour leader Sir Keir Starmer). This pairwise approach has previously been used by Breunig et al. (2021) and Hopkins and Noel (2022); our application uses a richer set of response categories and presented only local comparisons. We asked councillors to pick the more left-wing MP on economic issues, choosing between five response options:

- [the first named MP] is much more left-wing;
- [the first named MP] is somewhat more left-wing;
- [the first named MP] and [the second named MP] are about the same;
- [the second named MP] is somewhat more left-wing;
- [the second named MP] is much more left-wing;

We analyze these ordinal responses using a Bayesian ordinal logistic regression (Bürkner & Vuorre, 2019) with symmetric thresholds (Johnson, 2003). The use of Bayesian methods allows us to work directly with the probability that a named MP is more left- or right-wing than a comparison MP and calculate measures of uncertainty for derived statistics such as rank-order. Our estimates should prove useful to researchers interested in parliamentary representation in the United Kingdom and more generally.

¹Some non-strategic legislative behaviours can be analysed (Kellermann, 2012), but these are becoming less popular (and thus less informative)

²Latent positions on specific issues can be recovered, but this requires a careful selection both of texts and reference points. See O'Grady (2022).

³Theresa May was elected Conservative party leader without a membership vote after four ballots of Conservative MPs; Boris Johnson became leader by beating Jeremy Hunt in a membership vote after eight other candidates were eliminated by MPs; Liz Truss became leader by beating Rishi Sunak in a membership vote after six other candidates were eliminated by MPs; Rishi Sunak subsequently became leader without any membership vote or ballot amongst MPs.

Table 1: Distribution of responses

Response	Y	N
[First-named MP] much more left-wing	1	652
[First-named MP] somewhat more left-wing	2	749
[First-named MP] and [Second-named MP] about the same	3	1321
[Second-named MP] somewhat more left-wing	4	712
[Second-named MP] much more left-wing	5	526

Data

Our survey was fielded between 7th August and 3rd September 2023 to r n_total local councillors. Only responses from the 1486 local councillors in England, Wales and Scotland were used. Respondents were asked to make up to six comparisons between pairs of MPs. The pairs of MPs were randomized within upper-tier local authorities. The pool of MPs included MPs which represented any constituency located wholly or partly within the "upper tier local authority", together with the leaders of the two largest parties (Rishi Sunak and Sir Keir Starmer). For example, respondents in County Durham were asked to make comparisons between seven MPs, of which five represented constituencies in the area. An example prompt is shown in Figure 1.

In total, respondents made 6024, or just over 4 comparisons per respondent. After excluding "don't know" responses, we are left with 3962 comparisons. These comparisons are not evenly distributed across MPs. 23 MPs feature in the data zero times. Two MPs (Keir Starmer and Rishi Sunak) appear over three hundred times. Including these extremes, the median number of appearances each MPs makes is 10.

Table 1 shows the distribution of responses across categories. The distribution is broadly symmetric (as we would expect) and concentrated around the middle category (as we would expect given that most comparisons were within-party comparisons). The table also shows the numeric representation of each response: we map "[First-named MP] much more left-wing" on to 1 so that in our analyses more left-wing MPs have negative values of the latent trait and are to the left in our plots.

Methods

We use an ordinal regression model with a cumulative logit link and symmetric thresholds. A cumulative link model models the probability that the response will fall in category k or lower:

⁴These were: Dehenna DAVISON (Bishop Auckland, Cons.); Grahame MORRIS (Easington, Lab.); Kevan JONES (North Durham, Lab.); Mary FOY (City of Durham, Lab.); Paul HOWELL (Sedgefield, Cons.); Richard HOLDEN (North West Durham, Cons.).

$$\Pr(Y_i \le k) = F(\tau_k - \mu_i) \tag{1}$$

where τ_k is one of K-1 threshold parameters ordered such that $\tau_i < \tau_{i+1}$. A cumulative logit link is obtained where F() is standard logistic distribution $\frac{\exp x}{1+\exp x}$. The use of a logit link rather than (say) a probit link does not affect our estimates except for changing the scale of the estimates. We use symmetric thresholds because of the symmetry in our question format: whether an MP appears as the first-named or second-named MP is random, and so the distance between "much more" and "somewhat more" should not be different depending on whether we face the actual comparison or the comparison with the order reversed. Symmetric thresholds can be obtained either by specifying the appropriate Jacobian (Christensen, 2019) or by dealing with the increments between thresholds. We use the latter approach here, and stipulate that:

$$\begin{split} \tau &= [\tau_1^*, \\ \tau_1^* + \delta_1, \\ \tau_1^* + \delta_1 + \delta_2, \\ \tau_1^* + 2 \cdot \delta_1 + \delta_2] \end{split}$$

This approach is illustrated in Figure 1, which shows the ordered thresholds and the increments used.

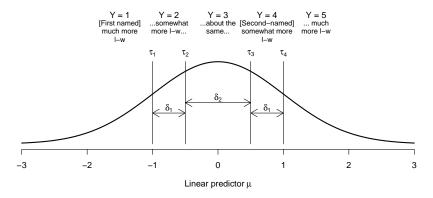


Figure 1: Illustration of the symmetric thresholds used

The thresholds describe how our linear predictor μ_i is related to the observed response Y, but we now need to characterize μ . We set μ equal to the difference between MP ideal points. We use $\theta_{A_{[i]}}$ refers to the level of the latent trait of the first named MP in the i-th comparison, and θ_B for the second named MP. Thus,

⁵The *responses* need not be symmetric: respondents may systematically be more likely to choose the second-named MP, but this can happen thanks to changes in the values of parameters τ_1^* and δ_2 rather than breaking the symmetry between $|\tau_2-\tau_1|$ and $|\tau_4-\tau_3|$.

$$\mu_i = \theta_{A_{[i]}} - \theta_{B_{[i]}} \tag{2}$$

There is no error term in this equation; the error is implied by the use of the logistic function in Equation 1. We then model θ as a function of the legislator Party and a residual random intercept α . If we use l to index legislators l=1,...,632, then we have

$$\theta_l = \alpha_l + \gamma_{P_{[l]}} \tag{3}$$

where the value of γ for the reference party, the Conservative party, is set to zero. Values of α are drawn from a distribution with estimated standard deviation:

$$\alpha \sim N(0, \sigma)$$

We place the following priors on the model parameters:

$$\sigma \sim N^+(0,1)$$

$$\gamma \sim N(0, 2.5)$$

$$\tau_1^* \sim N(-1, 2.5)$$

$$\delta_i \sim N^+(0,1)$$

We estimate this model in Stan, using four chains for 2,000 iterations, with the first 1,000 iterations discarded as warmup. There were no problems with convergence.

Results

Figure 2 shows a beeswarm plot of MPs' ideal points, with parties ordered by mean position. The relative ordering of the parties is broadly as expected, with the Liberal Democrats to the left of the Conservatives, and the positions of the SNP and Plaid Cymru parliamentary groups to the left of Labour. The within-party dispersion of the ideal points also makes sense: Labour MPs' positions are more dispersed than those of the Conservative party, whilst the Liberal Democrats are split between more left-wing Liberal Democrats (Layla Moran and Daisy Cooper) and the more free-market wing of the party (Ed Davey and, to a lesser extent, the party's Scottish MPs).

⁶In principle it would be possible to add additional predictors such as region or lagged vote share. In practice some additional predictors such as region overlap perfectly with membership in a particular party (Scottish National Party, Plaid Cymru), or otherwise introduced problems with convergence.

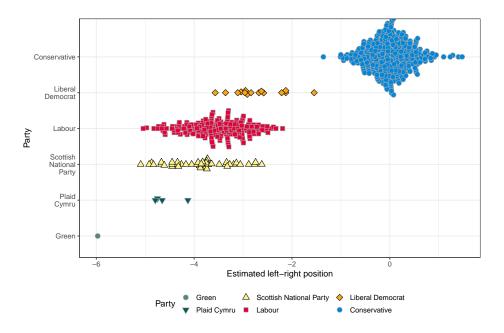


Figure 2: Bee-swarm plot of MPs' left-right positions

Figure 2 plots each individual legislators as a single point, and ignores the uncertainty associated with each estimate. The average width of the 95% credible interval on each estimate is 1.97 units. By comparison, the range of ideal points is (1.48 - 5.97 =) 7.45 units, and the standard deviation is 1.83 units.

We can investigate the face validity of the estimates by examining MPs at the extremes and middle of the distribution. Table 2 gives information on the six most left-wing, most centrist and most right-wing MPs, where "centrist" is defined relative to the distribution of MPs in the 2019-2024 parliament. The two most right-wing MPs, Mark Jenkinson and John Redwood, are respectively a former UKIP candidate and a "right-wing true-believer in the cold realities of the free market". The most left-wing MP is the sole representative of the Green party, whilst the most left-wing Labour MP John McDonnell is an occasional Marxist and former Shadow Chancellor of the Exchequer under Jeremy Corbyn. The centrist MPs are those on the left wing of the Conservative party, including, in Robert Buckland, a member of the One Nation caucus and patron of the Tory Reform Group.

The table also gives information on the rank of each MP, together with the endpoints of the 95% credible interval. Thus, while we present Caroline Lucas

William Tuohy, "Cool, Aloof John Redwood Adds Fire to British Politics", Los Angeles Times, 29th June 1995, accessed at https://www.latimes.com/archives/la-xpm-1995-06-29-mn-18536-story.html

⁸Jason Cowley, "Who is the real John McDonnell?", *New Statesman*, 5th September 2018, accessed at https://www.newstatesman.com/long-reads/2018/09/who-real-john-mcdonnell

Table 2: MPs on the left, middle, and right of the recovered dimension. Columns Lo and Hi refer to the 2.5th and 97.5th percentiles of the posterior distribution.

		Position Rank						
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MP	Party	Mean	Lo	Hi	Rank	Lo	Hi	
Left-wing								
Caroline LUCAS	Green	-5.97	-7.57	-4.47	1	1	36	
Steven BONNAR	SNP	-5.09	-6.30	-3.85	2	1	85	
John Martin MCDONNELL	Labour	-5.04	-5.98	-4.12	3	2	61	
Barry GARDINER	Labour	-4.97	-5.93	-4.04	4	2	69	
Tommy SHEPPARD	SNP	-4.92	<i>-</i> 6.15	-3.66	5	1	106	
Mhairi BLACK	SNP	-4.87	-6.12	-3.60	6	1	113	
Middle								
Robert BUCKLAND	Cons.	-0.39	-1.38	0.63	314	257	553	
Richard HOLDEN	Cons.	-0.38	-1.42	0.63	315	257	558	
Iain STEWART	Cons.	-0.37	-1.31	0.57	316	260	544	
John STEVENSON	Cons.	-0.35	-1.30	0.56	317	260	544	
Helen GRANT	Cons.	-0.35	-1.11	0.44	318	265	526	
Jane STEVENSON	Cons.	-0.35	-1.54	0.83	319	255	575	
Right-wing								
Mark FRANCOIS	Cons.	0.95	0.16	1.75	604	472	608	
Craig MACKINLAY	Cons.	1.10	0.40	1.82	605	520	608	
Esther MCVEY	Cons.	1.23	0.57	1.92	606	546	609	
Suella BRAVERMAN	Cons.	1.29	0.53	2.05	607	542	609	
Mark JENKINSON	Cons.	1.40	0.50	2.31	608	537	609	
John REDWOOD	Cons.	1.48	0.62	2.34	609	554	609	

as the most left-wing MP, we could not rule out the possibility that she is actually the 36th left-most MP. Uncertainty in rank is particularly acute for centrist MPs, whose rank differs by almost three hundred places across samples from the posterior. Nevertheless, we can still distinguish between MPs at these points: the posterior probability that Robert Buckland is to the left of Mark Francois (for example) is 100, while the probability that Mark Francois is to the left of John Redwood is 15. Generally the uncertainty in the estimates is primarily a function of the number of comparisons and only secondarily a function of the extremism of the MPs' position (see Figure 3).

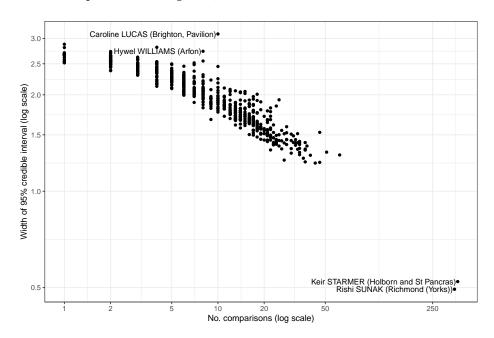


Figure 3: Uncertainty in estimates as a function of the number of comparisons

Another way of demonstrating face validity is to examine the average positions of MPs in different party caucuses. Table 3 shows positions for Labour and Conservative caucuses. For Labour, Socialist Campaign Group MPs are to the left of the party generally, and the party generally is to the left of Tribune Group MPs. For the Conservatives, members of the (partially overlapping) Tory Reform and One Nation groupings are to the left of the party generally, and the party generally is to the left of European Reform Group subscribers.

We can check convergent validity by comparing our measures with other measures. Hanretty et al. (2017) present estimates of the left-right positions of 441 MPs who signed early day motions relating to the economy in the 2010 to 2015 parliament. Of these MPs, 164 also feature in our data. The correlation between the two measures is extremely high (r=0.94).

Table 3: Average positions and standard deviations of MPs in different party caucuses

Group	N	Median	SD
Cons.			
ERG subscribers	42	0.20	0.42
(All Conservative MPs)	356	0.01	0.42
Tory Reform Group	13	-0.18	0.30
One Nation members	26	-0.20	0.33
Lab.			
Tribune Group	68	-3.38	0.51
(All Labour MPs)	191	-3.49	0.58
Socialist Campaign Group	34	-4.20	0.48

Conclusions

In this note, we have presented estimates of the economic left-right position of almost all MPs serving in the 2019-2024 House of Commons. Our estimates therefore have greater coverage than any previous set of estimates. In future we hope to achieve a degree of temporal coverage by repeating this exercise for future parliaments. The estimates, which are available online at REFERENCE REMOVED, should help researchers interested in many different aspects of legislative and party behaviour.

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