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Combining voter preferences with party position estimates from different sources for studying voting behavior and representation ☆

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ABSTRACT

Researchers interested in policy voting and substantive representation face the challenge to combine party positions with voter preference data on a common scale. One solution is to rely on voters' perceptions of parties' policy positions, as reported in surveys. However, this kind of data is often only available for the common left–right dimension, but not for more concrete policy scales, and it suffers from bias. We first discuss how to free perceptual data from bias by relying on a Bayesian version of the Aldrich–McKelvey rescaling technique. Then we discuss two prominent alternative sources of party position estimates: expert survey positions, and positions based on the CMP coding scheme of the manifesto project. While both types of party position estimates are considered to be of good quality, it is unclear how they fit into voter preference scales. This paper presents a simple rescaling technique that improves the matching.

1. Introduction

Estimates for party positions are most often derived from three different types of data sources: party manifestos, expert placements, or voter perceptions as reported in survey data. While the comparative literature on party systems mostly draws on both manifesto text-based and expert placements to analyze party configurations, the literature on policy voting faces the challenge to combine party positions with voter preference data. Here, researchers often rely on voters' perceptions of parties' policy positions as reported in surveys (e.g. Lachat, 2011; Clarke and Whitten, 2013; Hare et al., 2015; Kurella and Rosset, 2017). Since it is known that voter preference and perception data on policy issues suffers from biases caused by persuasion and projection effects, as well as from differential item functioning, methods have been proposed to eliminate these sources of bias (Aldrich and McKelvey, 1977; Hare et al., 2015; Jessee, 2021). We argue and demonstrate empirically that a Bayesian version of the so-called Aldrich–McKelvey rescaling works well to reduce bias in perceptual data. However, this kind of data is scarce, and often only available for the common left–right dimension, but not for more concrete policy scales.

Researchers interested e.g. in the extent of policy voting beyond the ideological left–right scale are thus often facing a missing-data problem. Yet there exist plenty party position estimates from different sources, relying on experts, political texts, roll-call data or MP's communication styles in social media. Yet, what these positions estimate might be quite different from how voters perceive the parties to stand on certain issues. This makes sense, since parties might present themselves differently in the media than in their manifestos, for example, addressing a different audience. This again differs at times significantly to the way experts position parties, who possess more information than the average voter. Thus it is by no means guaranteed that the way experts place parties on a specific policy scale is the same as the way the broad electorate perceives the parties to stand on the issue. However, lacking alternatives, the question arises whether we might just as well use external party position estimates in combination with survey data on respondents' policy preferences as a proxy for the positions at which the electorate perceives the parties to stand on an issue.

A survey of the empirical literature shows that this is in fact done in practice. For example, Simas (2013), Rosset and Stecker (2019) and Lachat (2008) combine voter preference data with expert placements of parties or candidates. While expert placements of parties are of very good quality and do not suffer from the biases caused by differential item functioning, it is unclear how they fit into voter preference scales. Even if the question wording and the scale is identical, there is no solution to eliminate the bias on the side of the voter preference data.

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The same holds true for party positions based on manifestos. For this type of position estimates, it is also questionable whether the scale really measures the same as an survey issue item. Party positions based on the CMP coding are additionally criticized for not clearly separating the effects of issue position and issue emphasis (Dinas and Gemenis, 2010). However, manifestos are often the only available database to estimate party positions for a wide range of countries prior to the 1990s, when e.g. the Chapel Hill Expert Survey was first fielded. Even if both party position estimates from expert surveys and manifestos have not been designed to capture the party system through the voters' lens, it is still often the only available source on party positions, and is therefore combined with voter preference data in empirical research (e.g. Okolikj et al., 2022; Rosset and Kurella, 2021).

While these different sources of party position estimates have been cross-validated against each other, we clearly still lack a systematic comparison of the performance of party positions from different sources when combined with survey data. This paper provides such an overview by discussing ways to combine party positions from expert surveys and the manifesto project with voter preference scales. The idea is to evaluate the performance of party position estimates with regard to typical questions within the field of policy voting, if no data on parties' perceived positions is available in the survey. We use position estimates based on perceptual data but rescaled by the Bayesian Aldrich–McKelvey method as our benchmark to which we compare the alternatives. Additionally, we propose a rescaling technique to improve the matching of party positions from external sources onto the voter distribution by relying on opinion leaders as theoretically meaningful anchoring points.

We present two empirical applications. First, we draw on data from the German longitudinal election study (GLES), and compare the performance of different estimates of party positions against perceived party positions. We show that BAM-rescaled perceived party positions are suitable to reduce biases in the voter distribution. Of the two alternative position estimates, expert survey data perform better than positions based on CMP coding in terms of replicating the results of a vote choice model based on BAM-rescaled party positions. Second, we combine data from the Comparative Study of Electoral Systems (CSES) and the Chapel Hill Expert Survey (CHES) to expand the comparison to other European countries. We compare the model fit and the pattern of salience parameters of different party position estimates in models of vote choice for this larger set of countries. The results show that, again, party positions based on expert evaluations have a larger model fit than party positions derived from manifesto data, which can further be improved by rescaling. The pattern of relative issue salience produced by models based on our rescaling technique are more in line with empirical evidence reported elsewhere.

The paper proceeds as follows. The next section gives a short overview of the literature studying voters and parties in multidimensional policy spaces. Then, we discuss the various sorts of data sources on party positions, as well as the rescaling technique. Chapter four presents the data, and chapter five the empirical results of two separate analyses. The last section concludes.

2. The link between voters and parties

There are two fields within political science that study the relation between voters and parties in terms of policy: research on spatial models of political competition, and research on substantive political representation. Both rest on the premise that in democracies elites represent the policy preferences of their voters. It is exactly this link between voters and their representatives that is the object to study. While in the representation literature, researchers are interested in the congruence between parties or governments and their voters on policy issue dimensions (Golder and Stramski, 2010; Adams and Ezrow, 2009; Rosset and Stecker, 2019), the research on policy voting analyzes the extent at which voters take policy into consideration in their vote choices (Merrill III and Grofman, 1997; Iversen, 1994; Kurella and Rosset, 2017), and the way in which parties position strategically on policy issues to attract a maximum of voters (Adams et al., 2005; Schofield, 2004).

Many of the contributions within both fields analyze the link between voters and parties on the ideological left–right dimension. Most election surveys provide this information by asking respondents for their self-placement on a left–right scale, along with their perception of party standpoints on the same scale. This is an ideal data base, which can further be corrected for biases caused by differential item functioning (Aldrich and McKelvey, 1977; Hare et al., 2015). These items are provided, for example, by the CSES dataset, which covers a large number of elections across the world. Consequently, there is a significant amount of comparative research on ideological voting and representation based on the CSES (e.g. Dassonneville et al., 2020; Burlacu, 2020; Best et al., 2012; Bernauer et al., 2015).

However, a large bunch of theoretical and empirical research repeatedly demonstrates the multidimensional character of European policy spaces, which are characterized by an economic issue dimension which is supplemented by a cultural dimension that runs orthogonal to the economic cleavage (Kriesi et al., 2012; Bornschier, 2010; Thomassen, 2012; Rovny and Polk, 2019). Even if parties tend to cluster on the main diagonal of such a two-dimensional policy space (Shikano, 2008), the impact of economic and cultural policy dimensions varies systematically in defining the overall ideological placement of parties (Meyer and Wagner, 2020) and voters (Lachat, 2018). Many studies even argue for a finer-grained differentiation of policy issue dimensions, detecting additional distinct dimensions of policy dispute on environmental, immigration and European integration issues (Henjak, 2010). Focusing on the left–right ideological dimension might thus be insufficient to study voting behavior in European countries.

To the best of our knowledge no large-scale comparative election study or social survey contains items on perceived party positions on multiple issue dimensions. Single national election studies often do so, but it is cumbersome to find, combine and harmonize them for comparative research. In the following we discuss common data sources available to study policy positions of voters and parties, discuss their pros and cons, and present possible ways to connect them.

3. Common data sources on parties' and voters' issue positions

3.1. The benchmark

A straightforward way to get parties' positions and voters' preferences on the same scale is to use voter preferences and their perceived party positions from the same survey. This type of data is broadly available for the ideological dimension, e.g. it is contained in the Comparative Study of Electoral Systems (CSES), or in the European Election Study (EES).

This sort of data, though highly valuable to political scientists, also comes with shortcomings. Voters' answers to issue scales suffer from differential item functioning (DIF) (Aldrich and McKelvey, 1977; King et al., 2004). DIF describes the fact that respondents tend to locate themselves closer to the midpoint of the scale, making them appear more moderate than they actually are. The same applies to the placement of any stimuli (i.e. party or candidate) they feel positive about, while at the same time pushing disliked stimuli farther away on the scale. One of the reasons for that behavior is that being moderate has many positive connotations while being extreme is evaluated quite negative along the lines. Another reason is that respondents with different ideological standpoints perceive the political world differently (Hare et al., 2015). E.g. "a far-left activist and a far-right activist [...] might agree that President Obama is to the left of Mitt Romney. But the far-left activist may perceive Romney to be on the far right and Obama to be moderate or even slightly conservative. Conversely, the far-right activist is likely to view Obama as extremely liberal and Romney as a

centrist" (Hare et al., 2015, 761). Ignoring bias by DIF thus leads to an underestimation of polarization of voter opinion.

Hare et al. (2015) present a rescaling procedure that is based on the pioneering work of Aldrich and McKelvey (1977). Yet, this procedure can only be applied to correct voter self-placements if respondents additionally locate parties or candidates on the same scale. Information on perceived party standpoints is vital to estimate the distortion parameters to relocate voters and separate those apparently moderate voters who are actually more conservative from those with identical self-placement, but who are actually more to the left. Since our aim is to provide a solution to place voters and parties on a common scale in situations where no issue item on party placement is included in the survey, we regard Hare et al.'s model as best practice to locate voters and parties on a common policy scale. It thus serves as the benchmark to compare our alternative estimates to.

3.2. Alternative party position estimates

In all cases the first step of the researcher who wishes to combine external party position data with voter preference data is to harmonize the response scales for both voters and parties, e.g. by transforming both onto a scale of the same range. We suggest to scale onto the interval $[-1, 1]$ by a simple linear transformation,[3] such that the endpoints for both voters and parties are at -1 and 1, no matter whether the original scale has 5, 7 or 11 scale points. In the following, we assume that such a transformation was conducted, and both the voter and party scale cover an identical interval.

3.2.1. Positions based on expert surveys

The standard procedure to get estimates for party positions based on expert surveys is to take the mean rating over all experts as position estimate. These measures have been shown to produce valid and reliable estimates of parties' positions when compared with other measures (Hooghe et al., 2010; Marks et al., 2007). However, we cannot be sure that voters and political experts understand the same question, e.g. asking for a placement on a specific policy issue scale, in the same way, nor that they use the scale in the same way. E.g., as already discussed above, voters tend to locate themselves closer to the midpoint of the scale, making them appear more moderate than they actually are. This produces a large density of voters at center, while experts might place parties clearly on either side, their answers being more objective and thus not subject to the same sort of bias. Also, experts and voters might have different understandings of the meaning of the endpoints of the scale. Experts' reference points might be more consistent over dimensions, time and context. Voters, on the other hand, might be more influenced by their own ideological standpoint, and by current political debates, making their reference points subject to short term factors and less consistent across individuals, dimension and time. These two tendencies potentially produce a mismatch between expert and voter scales both at the center, and at the extremes of the scale, even though the question wording is the same.

In many circumstances it is not even the case that issue items asking respondents for policy preferences are identical in wording or even in the concrete content to the items included in expert surveys. E.g. the European Social Survey (ESS) item asking for whether the government should reduce differences in income levels is frequently used to estimate respondents' preferences on a socio-economic issue dimension. When combining it with expert data from the CHES survey (e.g. Stecker and Tausendpfund, 2016; Rosset and Stecker, 2019), the closest item is the general economic left–right scale which asks for parties' stances on "economic issues such as privatization, taxes, regulations, government spending, and the welfare state. Parties on the economic left want to play an active role in the economy. Those on the economic right want a reduced role for government" (Jolly et al., 2022). Thus, the CHES item addresses the state's role in the economy, while the ESS asks for the goal of income equality, irrespective of how this might be achieved. Income differences can be decreased by providing social benefits, without the state intervening in the economy. It is thus legitimate to question that expert and survey respondent scales really measure the same.

We argue that differences in question wording will not largely impact the validity of expert survey based party positions as proxies for perceived party positions. We know that European parties' standpoints on various issues from the same latent dimension (economic or cultural) are highly correlated, as shown in Tables A.1 and A.2 in Appendix A. These correlations demonstrate that parties' positions on four different economic issues as drawn from the Chapel Hill Expert Survey correlate with $>.9$. The correlation of four distinct cultural issues is a bit smaller but still $>.8$ for all pairs. With such high correlations, parties' stance on e.g. interventions in the economy are also a good proxy for their stances on social benefits and taxes. The same argument holds for the question of whether we can combine voter preferences with party positions that were surveyed at different points in time. Since parties' positions correlate highly over time, the past position is still a very good proxy of the current position.

Despite the potential mismatch in wording and concrete content we still assume that due to their high reliability and validity, party positions from expert surveys are a good proxy for perceived party positions. Expert data has been shown to perform especially well for major, old, and governing parties, whose policy positions are quite stable over time (Marks et al., 2007). Thus, when combined with survey respondent data in a spatial model of vote choice we assume them to perform better in predicting major and governing party votes, than votes of small and niche parties.

3.2.2. Positions based on manifesto data

Position estimates based on manifesto data usually rely on the hand coding of quasi sentences which fall into categories of left and right. These categories might be pre-defined (Laver and Hunt, 1992), or evaluated for each case at hand empirically (Franzmann and Kaiser, 2006). The position estimate is then defined as the relative or absolute number of left versus right quasi-sentences in the manifesto. The advantage of that procedure is that it is applicable to all elections for which party manifestos are available, and thus also allows the scaling of many parties far into the past.

This coding technique has many shortcomings as well. E.g. Marks et al. (2007) have shown that party positions based on manifesto data perform well for major, government parties, but not so well for small, new, opposition parties. Additionally, the quality of the position estimate depends on the sheer length of the manifesto, that the party endows to the issue area. Thus, it might work less well on issue areas that are less salient, but also on issues on which a party might not want to take a clear position for different reasons. We expect this bias to be smaller for government parties, who are more likely to defend their past government action on a wide array of issue domains (Marks et al., 2007).

Another potential problem in combining manifesto data with voter preference data is the discrepancy in the meaning of the endpoints of the scale. Voters are presented specific labels for the extreme points of a survey item, e.g. the strongest disagreement/agreement to a clearly defined statement such as "Minorities should adapt to the customs and traditions of country xy" as taken from the CSES. The extreme point of the CMP coding scheme, on the other side, represents the imbalance of, e.g. pro- and anti-multiculturalism sentences in the manifesto and thus does not directly represent the extremeness nor the intensity of a position.

Also, the CMP coding scheme is not designed to estimate party positions on concrete policy issue dimensions beyond the general ideological scale. This becomes obvious when estimating party positions

[3] This is done by performing the following linear transformation on each data point x: $x' = \frac{2*(x-min)}{max-min} - 1$, where max and min are the maximum and minimum values of the original scale, respectively.

on immigration, where the CMP coding scheme offers two categories: Multiculturalism: Positive (607) and Multiculturalism: Negative (608). Mentions of the very broad topic of integration, on which much of the recent political debates center in European countries, are altogether categorized as Multiculturalism: Negative (608). This does not do justice to the complexity of this political issue and also makes it very difficult to distinguish between parties that propose measures to facilitate integration through a larger and better publicly funded offer of, e.g., language courses, and those parties that primarily see immigrants as having a duty to discard their culture and adapt to the national culture.

Although the ordering of the parties on any specific issue scale might still be valid, the differences in the usage and meaning of the scale make it hard to combine manifesto data with voter preference data, especially on more concrete policy issue dimensions than the ideological left–right scale. We therefore assume it to perform less well than expert survey data, especially with regard to small, niche and opposition parties who might not face incentives to elaborate as broadly on every policy domain.

3.3. Rescaling technique

With regard to the discussed difficulties that arise when combining expert or manifesto based party positions with voters' issue preferences, we suggest a rescaling technique that we argue will improve the match between voter preferences and external party positions.

The aim is to shift and stretch the party configuration such that it maps onto the voter distribution in a theoretically meaningful way. This might be especially helpful to relocate manifesto data, where we cannot be sure whether the endpoints of the scale are comparable to survey items, but the relative configuration of party placements is still valid. We therefore suggest to use information from the voter distribution to serve as anchoring points on which to maximize the fit by a simple OLS regression model. We know from the empirical research that parties are very responsive to the policy demand of so-called opinion leaders (Adams and Ezrow, 2009), and that there is a close connection between the policy preferences of opinion leaders and *their* parties (Lloren and Wüest, 2016; Claassen, 2007). Reasons are that these opinion leaders are politically more active (Shah and Scheufele, 2006), thus more likely heard by elites. Moreover, politically more interested citizens are more likely to turn out to vote, and are thus a more attractive target for parties to cater their policy program to Griffin and Newman (2005).

We built on these findings by using the policy preferences of those partisans, who we can identify as opinion leaders, as anchoring points on which to calibrate the party configuration. We operationalize opinion leaders by the survey item asking for a respondent's political interest and classify those as opinion leaders who first, report strong or very strong political interest, and second, report to identify strongly or very strongly with one of the parties.[4] This allows us to estimate the average opinion leader position per party. Then, we regress the mean partisan-opinion leader positions on the external party positions. The intercept of the regression model can be interpreted as the general shift parameter, and the coefficient as the stretch parameter to fit the external party positions onto the voter distribution while keeping the original relative configuration of the party position estimates fixed. Thus, the rescaled party position estimates are given by the predicted values of an OLS regression of mean opinion leader positions on party estimates. We conduct this rescaling separately for each issue dimension.

Fig. 1 illustrates the procedure for a typical scenario for a left (L), social democratic (S), conservative (C) and right (R) party. The externally measured party positions are displayed on the x-axis. They exhibit clear differentiation between parties from the left and right. The y-axis represents the voter preference scale, on which the mean positions of each party's opinion-leader partisans are located, illustrated by triangles. The mean opinion-leader partisans of each party are located closer to the mean of the scale than the external party positions. This is what we would expect based on differential item functioning, with respondents (including opinion leaders) preferring to locate themselves more moderately than they are. The externally measured party positions might come from an expert survey and thus not suffer from that bias. We then estimate an OLS regression of mean opinion-leader partisans' positions on expert party positions and obtain the regression line as depicted. The dashed line illustrates how the expert party positions are mapped onto the voter scale on the y-axis. The solid grey points indicate the rescaled positions, which is the fitted values based on the OLS regression.

What happens is that party positions are shifted to more conservative positions ($a = 0.375$), and they are compressed by a factor of 0.85. The resulting rescaled party positions are indicated on the y-axis as L′, S′, C′ and R′. By this transformation, the relative distances between the parties are kept, but the overall location and range is changed to match the configuration of opinion leaders as part of the voter distribution. The aim of this transformation is to control for the mismatch in the labeling or meaning of the endpoints of the scales, and to consider the bias in the voter preference data caused by DIF.

4. Empirical case study: Germany

First, we want to inspect how the two external data sources and their rescalings compare against the benchmark of perceived party positions. For that, we draw on data from the rolling cross-section of the German Longitudinal Election Study (GLES) that was collected before and after the most recent federal election in Germany in 2021 (GLES, 2022). This data source contains 5220 respondents, who were asked for their preferences and their perceptions on party positions on three policy issue domains: taxes vs. social benefits, immigration, and climate change. We consider the 7 parliamentary parties in our analysis, which are the leftist party Die Linke, the green party Bündnis 90/Die Grünen, the social democrats SPD, the two conservative sister-parties CDU and CSU,[5] the liberal FDP and the radical right AfD.

To construct our benchmark party positions, we apply the Bayesian Aldrich–McKelvey rescaling technique (Hare et al., 2015) to the preference and perception data based on the GLES for each of the three policy issue domains separately. We call this the *BAM estimates*. We run two chains, using the party location parameters as estimated by a frequentist approach as start values.[6] Other than that we use largely uninformative prior distributions on the parameters and set the cutoff for the minimum number of perceived party locations to four out of seven. All other details on the application of the BAM rescaling are presented in the R-Code in the Online Appendix.

The top two panels in Figs. 2–4 show the BAM rescaled voter density distribution and party positions, as well as the original voter preference data and the mean perceived party positions on all three issue items

[4] By this we deviate from the literature, which mainly relied on items asking for the political activism of respondents, the frequency of political discussions, and the frequency of persuading others in political discussions (Adams and Ezrow, 2009). Since our aim is to present a technique that is easy to apply for a broad range of comparative data, we chose an operationalization based on survey items that are widely available and still capture the political involvement of respondents. We believe that the connection of political interest and strong partisanship is able to detect political activists, although it might as well classify some non-activist respondents as well.

[5] The CDU fields direct candidates and party lists in all federal states except Bavaria, the CSU only in Bavaria. In the Bundestag, they form a joint parliamentary group.

[6] We use the aldmck command as part of the basicspace package (Poole et al., 2016) for R to get the start values for party positions.

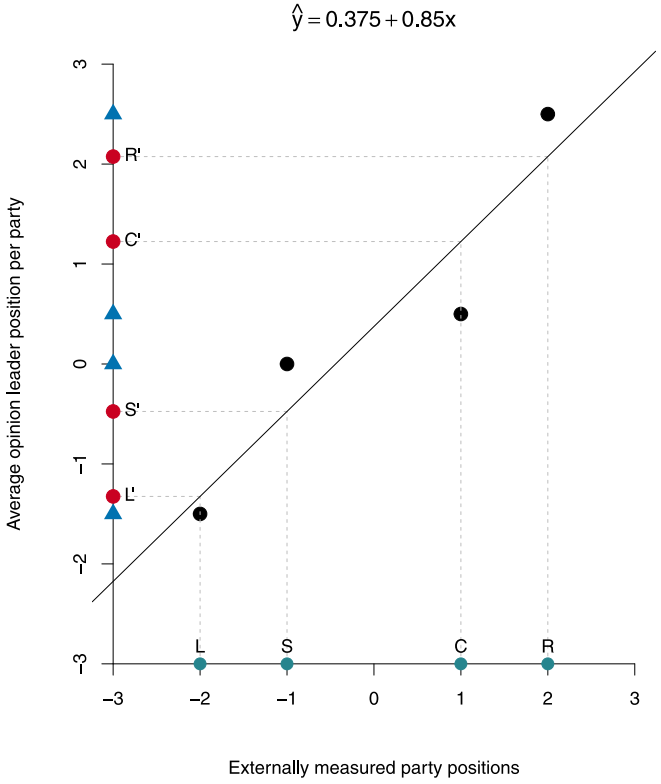

Fig. 1. Rescaling of party positions based on parties' mean voters' positions.

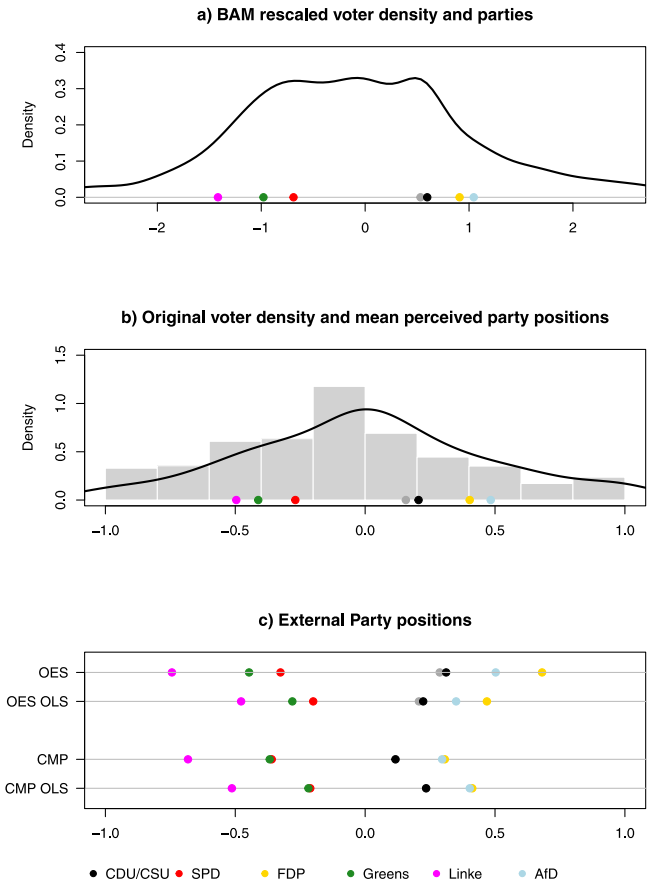

Fig. 2. Voter distribution and various party positions on the economic issue dimension.

separately. We see that across all three issue domains, the BAM rescaling performs well in smoothing the voter density, and controlling for the bias caused by DIF by disentangling the voters at the mean. This is especially obvious on the economic dimension, where respondents are clustered strongly around the mean. The BAM rescaling manages to differentiate respondents at the center into more left- and right-leaning ideal point holders based on their reported configuration of perceived party positions. It also becomes obvious that the party configuration itself hardly changes. Yet, what is important, is that the link between voters and parties is a different one. Voters are transformed from their idiosyncratically perceived policy dimension onto a common policy dimension.

Concerning the immigration issue item, we see that voters cluster at the midpoint of the scale, as well as on the rightmost extreme point. Correcting for DIF by applying BAM, however, we again see a more bell-shaped density curve of the voter ideal points, while party positions again are quite the same. The pattern looks a bit different for the environmental issue dimension in Fig. 4. Here respondents cluster strongly at the leftmost scale point, expressing the opinion that much more needs to be done to fight climate change. Although some voters also indicate more moderate and even contrary opinions, the voter density is clearly right-skewed, with voters appearing to be more progressive on that matter than parties. After controlling for DIF, however, the pattern changes such that we see a clearly polarized electorate with the Greens being located at the point with highest voter density on the progressive side, and the conservatives and liberals being located at the point with highest density on the traditional end of the scale. Thus, the skewed voter density distribution based on the raw data is skewed only because of a strong bias by DIF.

We use these BAM benchmark estimates to compare them to party positions based on expert surveys, as well as party positions derived from Manifesto data. In order to get external estimates of party positions based on experts, we use data from the Open Expert Survey that was collected in the weeks prior to the German federal election 2021 (Jankowski et al., 2022). This data contains information on party placements on a wide range of policy issues, and also uses the exact same wording as the GLES to locate parties on the economic, immigration, and environmental dimensions.

Additionally, we use the CMP coding scheme provided by the MARPOR project (CMP; Volkens et al., 2021) to locate parties on the three issue domains based on their manifestos. Concretely, we follow the suggestions of Franzmann and Kaiser (2006) to define left and right categories for each issue domain, and subsequently scale parties based on the relative frequency of left and right quasi sentences on that issue domain in their manifesto, by further smoothing the positions by averaging over the preceding election's position.[7]

5. Results

5.1. Evaluating the matching

The bottom panel of Figs. 2 to 4 present the original (*OES* and *CMP*), and OLS rescaled position estimates (*OES_OLS* and *CMP_OLS*) for each policy issue dimension. We can summarize the main pattern as follows: The OLS rescaling leads to a more compressed party configuration as compared to the original expert placements. This is what we expect given differential item functioning on the side of the voters, of whom we use opinion leaders as anchoring points. For the CMP positions, this is not always the case, see e.g. the immigration issue where all parties are located closely together on the right. This illustrates the shortcomings of the manifesto coding procedure to estimate party

[7] The detailed coding plan is presented in the Online Appendix.

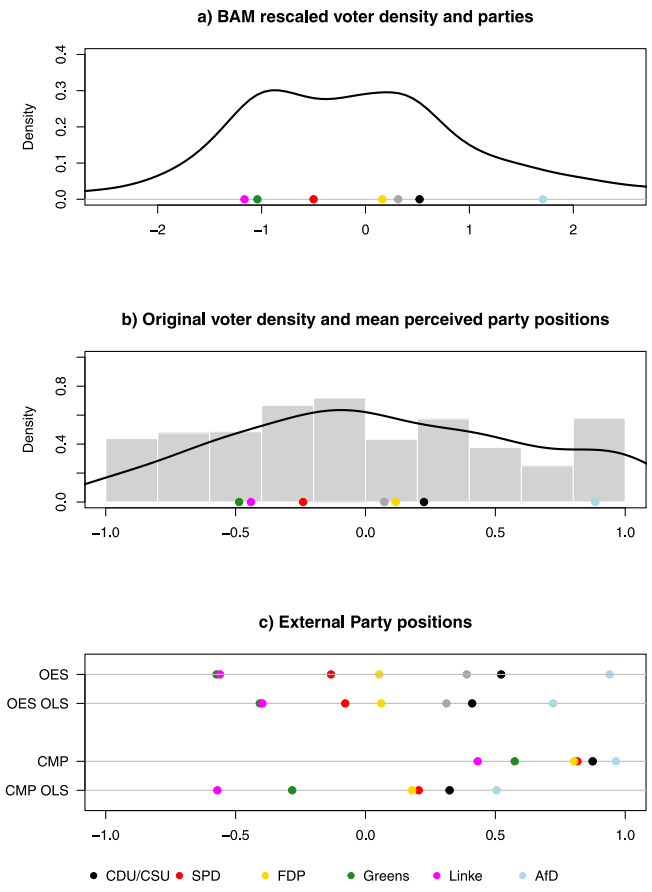

Fig. 3. Voter distribution and various party positions on the immigration issue dimension.

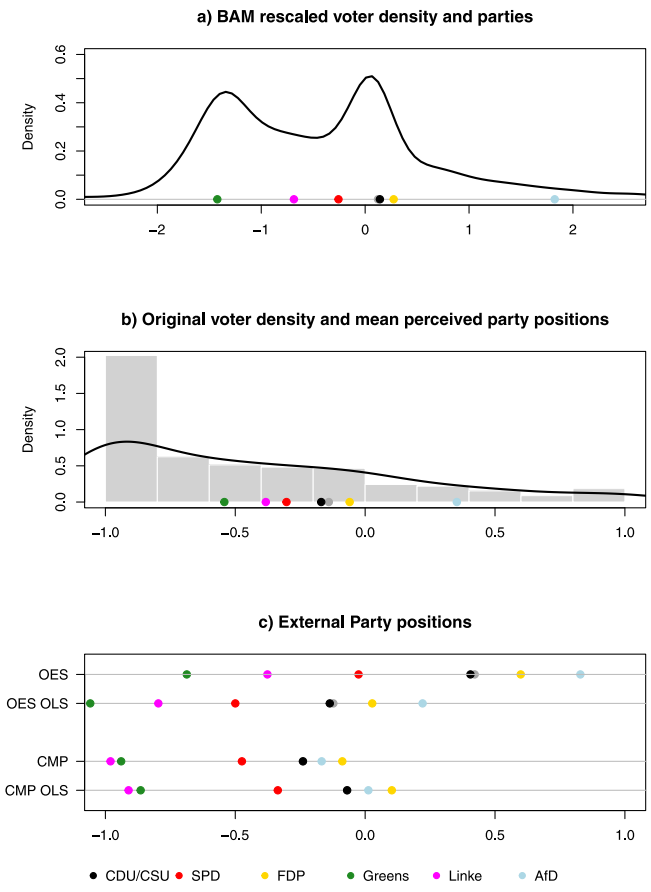

Fig. 4. Voter distribution and various party positions on the environmental issue dimension.

positions on more concrete policy dimensions, which critically hinges on the identification of suitable categories. As already discussed above with respect to immigration, the CMP coding scheme is not sufficiently fine-grained to capture nuances of the current discourse on these issues. All parties, even left and green parties, are located on the right side of the immigration dimension, which is mainly explained by their policy proposals on integration. Here, the OLS rescaling leads to a stretching of the party positions, demonstrating that the OLS rescaling corrects for that.

We face a similar problem with regard to the environmental dimension. In the years prior to the 2021 federal election in Germany, the whole debate on climate change has been dominated by the issue of renewable energy and energy transition. While the public opinion largely agrees with the need for these alternative energies, there are very well some voters and parties denying man-made climate change and opposing the energy transition. The CMP coding only provides a category on positive mentions of environmentalism (per501), but no negative counterpart. We solve this issue by drawing on category per406 which codes positive mentions of economic growth. This category differentiates significantly between the Greens on the one, and the liberal FDP and rightist AfD on the other side. However, based on the CMP coding, all parties devoted a larger part of their manifesto to positive mentions of sustainability and environmental protection, than to positive mentions of economic growth. Even the AfD, which doubts man-made climate change, apparently formulates statements that fall in category per501, and thus is located left of center. Apparently, not even the strongest climate alarmist can avoid public discourse and expresses positive views on environmental protection.

The OLS rescaling procedure should be able to correct for a possible resulting mismatch between the external party position estimates, and the survey respondents' preference distribution. As we see, the positions are hardly changed after OLS rescaling on the environmental dimension. The reason is that here, the voter distribution is also largely biased, but due to a different reason (DIF). So it is by chance that both the respondents and the manifesto positions are biased in the same direction, but this should not make us more confident of the validity of the CMP coding.

Other than that we see that overall, the ordering of the parties is the same across all different estimates on each policy issue dimension. There are only few exceptions to that pattern concerning the FDP and AfD as pole parties on the taxes vs. benefits and the climate change dimension.

Which position estimates come closest to our unbiased party position estimates through the voters' lens, based on the BAM rescaling? Since these estimates are located on an inherently different scale a direct comparison is impossible.[8] We therefore use the percentiles of the voter distributions as bridging element in order to compare the relative locations of party positions against the voter distribution. Concretely, we assign each party position estimate a score that represents the percentile of its location on the voter distribution. For example, assume a party is located at −2 on the BAM scale, and 20 percent of BAM-rescaled voter ideal points are located to the left of that point, and 80 percent to the right. Then we assign the party a value of .2. Now

[8] The BAM party positions are standardized such that the mean of the party configuration is at zero and the standard deviation at one. Voters are located on the scale based on their estimated distortion parameters. The set of possible voter ideal points is thus open, and there is no way to restrict it to a fixed interval without any further assumptions on where to truncate the set.

Table 1
Mean absolute difference between party position estimates and BAM positions in relation to their location on the voter percentile scale.

	OES	OES OLS	CMP	CMP OLS
Economy	0.064	0.055	0.055	0.042
Immigration	0.023	0.039	0.365	0.075
Environment	0.169	0.048	0.105	0.092

assume the same party's expert survey location is located at -.5 on the interval [−1,1], and 25 percent of voters' unrescaled ideal points lie to the left of -.5, then we assign the party's expert position a value of .25. The graphical presentation of the resulting configurations for our data at hand is shown in Figure 1 in the Online Appendix. This measure is directly comparable across scales and has the advantage of taking the differences in the voter distribution into account. We can then calculate the average absolute distance between all parties' scores of one external party source as compared the BAM-rescaled party positions. The smaller the value, the more closely the party-voter configuration resembles the party-voter configuration that we get based on the BAM rescaling.

Table 1 reports the results for each external party position source and each policy issue dimension separately. It shows that the OLS rescaled OES positions come closer to the BAM configuration on the economy and environment. For immigration, the original OES positions are already very close at the BAM configuration and rescaling does not improve the matching. We get a similar pattern for the CMP positions. Here, rescaling brings the configuration closer to the BAM gold standard on each issue dimension. However, the values for the OLS rescaled CMP positions are larger than for the rescaled OES positions in two out of three cases. We can thus conclude that rescaling indeed improves the matching of external party positions with survey data on voter preferences.

5.2. Performance in models of vote choice

How do these estimates perform in standard models of vote choice? In order to assess their validity for estimating policy voting, we first compute the absolute distance between respondents' own ideal points and the respective party position estimate. For the BAM estimates, we calculate the policy distance to the BAM rescaled voter positions, which is freed from bias by DIF. For the other position estimates, we use the policy preferences as reported by the voters.

Then we estimate conditional logit models of vote choice including the absolute policy distances on each dimension together with the mean thermometer feeling score of each party as a control variable for non-policy related valence terms of the vote function. We estimate one model per position estimate: BAM, expert positions, CMP coding, and the rescaled versions of the last two. The detailed results are presented in Table A.3 in Appendix A. To compare the performance of each position estimate, we calculate the percentage point improvement of the log likelihood as compared to the baseline model, which only includes the mean thermometer scores - the valence-only-model.[9]

Fig. 5 presents the results. The model based on BAM position estimates improves the log likelihood by 17.9% as compared to the Valence-Only-Model. Since we assume that the BAM estimates are free from bias, we take that result as an estimate of the "true" extent of issue voting at the 2021 German federal election. Now switching the policy issue distance variables to those based on the OES positions and

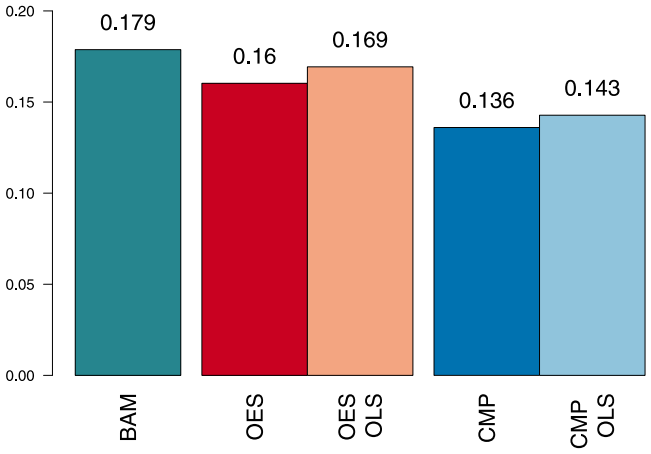

Fig. 5. Percentage point improvement of log likelihood in models of vote choice based on different party position estimates as compared to valence-only model, GLES.

voters' reported preferences, the improvement of the log likelihood is at 16%, thus quite close to the gold standard. The results also show that the model based on OLS rescaled OES position estimates comes even closer to the BAM model fit, by increasing the log likelihood improvement by another .6 percentage points. The model fit of the CMP-based position estimates is trailing behind. The model based on the CMP party positions improves the fit by 13.6%. However, we can improve the model fit via rescaling by .7 percentage points.

Since we argued that the CMP based party positions are better suited to estimate major parties' positions, we further inspect the model performance for small and major parties separately. Concretely, we calculate the percentage of correctly predicted vote choices separately for major and small parties based on five vote choice models. Fig. 6 illustrates the results. For major parties, models based on BAM positions again perform best, and models based on expert positions rank second. The OLS rescaling leads to a larger number of correctly predicted cases for major party votes for both external party positions.

The results for small parties are more mixed. This time the unrescaled manifesto positions perform best. This is probably the consequence of manifesto positions on immigration and the environment being accidentally skewed in the same direction as the raw voter distribution. We would not expect the same finding in cases where the voter distribution is less skewed, or skewed in the opposite direction. That the good fit must be accidental is also supported by the finding that rescaling onto the voter distribution decreases the predictive power of the model. Both the models based on BAM and those based on expert positions lead to a similar number of correctly predicted small party votes.

Another way to assess the suitability of these different measures for modeling voting behavior is to ask for the salience of the distinct policy dimensions. This is a question that is often addressed by researchers interested in policy voting. Are the alternative party position estimates suitable to detect which policy issue enters with larger and smaller weight into the vote calculus? Fig. 7 presents the answer, showing the relative salience of immigration and environmental policy issues for voting behavior, as compared to the economic issue dimension. The bars denote the ratio of the spatial coefficient of either issue and the spatial coefficient for the economic issue dimension.[10] It shows that based on the BAM estimates, both immigration and environmental policy issues are less salient than the economic issue dimension, represented by a ratio <1. We also see that immigration and environmental

[9] Since the number of parameters are the same for all our models, the log likelihood is a good statistic for comparison. The Akaike Information Criterion and the Bayesian Information Criterion are linear transformations of the log-likelihood, such that the results are actually the same as if choosing the AIC or BIC for comparison.

[10] Calculating the relative salience has the advantage that this measure is comparable across models even though the BAM scale has different endpoints than the other party position estimates.

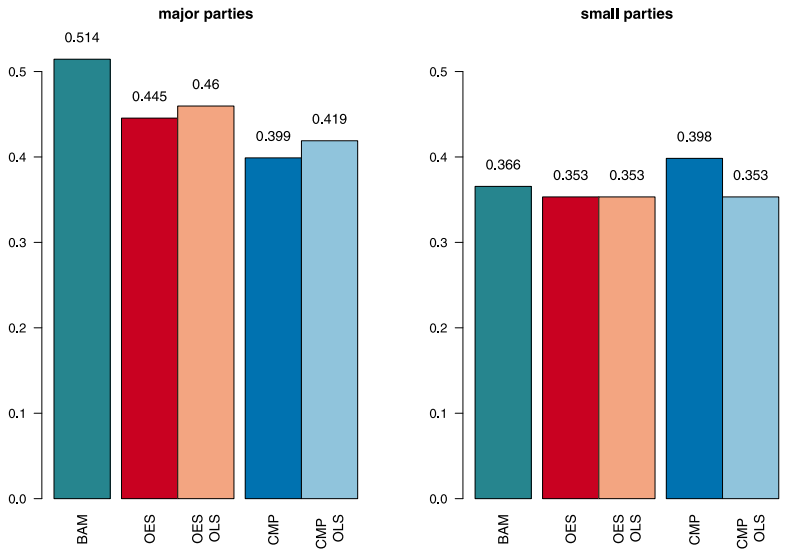

Fig. 6. Percentage of correctly classified vote choices for major and small parties.

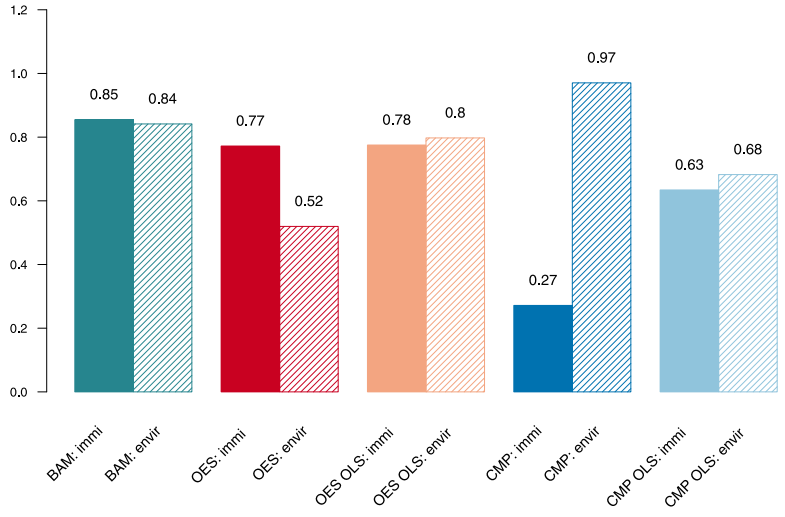

Fig. 7. Relative salience of immigration and environmental policy distance as compared to the economic issue based on vote choice models with different party position estimates.

issues are about equally salient, their ratios against economy being of roughly equal size. Again we treat this as the "true" estimate of the pattern of issue salience at the 2021 German federal election and evaluate how well the models relying on the other position estimates replicate that pattern.

We highlight two main points: First, the models based on OLS rescaled party positions come very close to replicating the BAM pattern in that they both lead to the conclusion that immigration and the environment were about equally less important to voters than the economic issue dimension. Secondly, we see that both external party position estimates lead to different conclusions on the relative importance of immigration and environment, and that the pattern based on the CMP positions deviates more strongly from the pattern we get based on the BAM positions. Thus we conclude that expert survey data again works better than the CMP positions, and that OLS rescaling gets us closest to detecting the "true" pattern of issue salience.

5.3. Comparative study: CSES

Having demonstrated that rescaled expert positions perform better in substituting perceptual data on party positions in models of vote choice than models based on the CMP coding, we now expand our analysis to various European countries, drawing on the Comparative Study of Electoral Systems (CSES). We want to investigate the model fit based on party positions from the Chapel Hill Expert survey (CHES) and the manifesto project, and again inspect the pattern of issue salience.

The CSES wave 5 and CHES 2014 and 2019 enable us to estimate two-dimensional spatial vote models encompassing economic and immigration issues.[11] We also include a valence component in our models to capture non-policy related factors of vote choice. As with the German data from 2021 above, we calculate the average like-dislike score for each party per country and include this as a proxy for party valence in the conditional logit models of vote choice.

To measure voter preferences on immigration issues we build an index consisting of two items asking whether a country's culture is generally harmed by immigrants and whether immigrants increase

[11] The CSES fieldwork period covers the years 2016 to 2021. We match the voter data with the CHES wave closer to the respective election date. We estimate separate conditional logit models for Austria (2017), Belgium Flanders (2019), Germany (2017), Finland (2019), Greece (2015), Hungary (2018), Italy (2018), and Sweden (2018). Case selection is due to data availability.

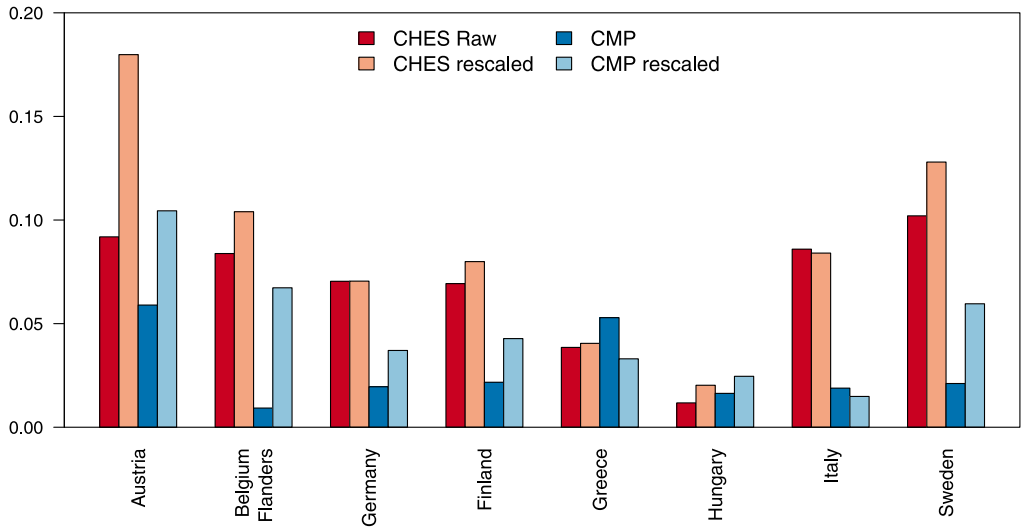

Fig. 8. Percentage point improvement of log likelihood in models of vote choice based on different party position estimates as compared to valence-only model, CSES.

crime rates.[12] Voters' preferences on economic issues are captured by an item asking whether the government should decrease taxes and spend less on services.[13] We combine this voter data with party positions on immigration and redistribution provided by the CHES. We additionally apply the rescaling procedure on the party position estimates by country as described above, to fit them optimally on the voter scales. We also match the CSES data with manifesto party positions, derived as described in the previous section, and also conduct both rescaling techniques.

In the following analyses our benchmark model is a vote choice model that only includes the valence component (Valence-Only-Model). We again calculate the percentage point improvement in the log likelihood of vote models based on all variants of party positions, as compared to the Valence-Only-Model.[14] Fig. 8 presents the results.[15]

These general points are notable: First, the models based on raw CHES positions perform significantly better than models based on raw CMP positions, except for Greece. Second, the OLS rescaling always improves the model fit for models based on CHES positions, with one exception: Italy. Third, the OLS rescaling also improves the model fit for models based on the CMP scaling in all cases except for Greece. Generally, the OLS rescaling technique has the potential to improve the fit of models based on either position estimate significantly, see Austria for both, and Belgium, Finland and Sweden for the CMP coding.

Again, we also assess the suitability of the different party position measures by looking at the salience of the policy dimensions. Fig. 9 shows the spatial coefficients for economic and immigration issues based on the raw and rescaled CHES and CMP party positions, respectively.[16] The main finding across all countries is that the order of which issue is more salient to voters is consistent for the rescaled party positions, both CHES and CMP. Further, if the raw CMP suggest a reversed order as compared to the raw CHES estimates, the OLS rescaling manages to flip the CMP coefficients around, except in Italy. Another finding is that the coefficients based on the rescaled (CHES and CMP) position estimates are larger in terms of effect size. This indicates that we come to different conclusions about the extent of policy voting after rescaling, generally detecting a larger impact of policy on vote choice.

However, we still do not know whether the order given by the rescaling captures the "true" ranking of policy issue since we lack the BAM estimates as a gold standard to compare the pattern of salience against. Therefore, we present further evidence from the empirical literature to assess the relative importance of the two policy issues we include in our models.

Starting with Austria 2017, the graph shows that the rescaling flips the order of the coefficients around, for both CHES and CMP position estimates. Based on the original party position estimates, we conclude that economic issues played a larger role than immigration in the voters' minds. The vote models based on the rescaled position estimates show the exact opposite pattern, with immigration weighting more heavily in the vote calculus than economic issues. Taking a look at the empirical research on the 2017 Austrian election provides evidence that immigration was indeed more important than economic issues (Plescia et al., 2020; Bodlos et al., 2018). This supports the results of our OLS rescaling technique. We find similar evidence supporting the pattern of issue salience that we detect based on choice models with rescaled party positions for Belgium Flanders in 2019 (Walgrave et al., 2020), Germany in 2017 (Franzmann et al., 2020) and Finland in 2019 (Arter, 2020). In these cases immigration issues are found to be more important than economic issues.

Italy 2018 is a tricky case, where the literature provides mixed evidence on voters' issue salience. While Magistro and Wittstock (2021) and Giannetti et al. (2018) show that immigration issues were more important than economic ones during the 2018 election, Emanuele et al. (2020) illustrates that anti-immigration policies are most salient

[12] Both items are rescaled to a range from −1 to 1, then we take the mean value.

[13] This item was not included in all countries. Where it was not available, we replace it with the alternative item asking whether the government should take measures to reduce differences in income levels. In countries where both items were asked, we calculate the mean. We also rescale the economic issue items to an interval from −1 to 1.

[14] We calculate five different models: The Valence-Only-Model and four other models where the valence component enters simultaneously with distance of party and voter positions on economic and immigration issues. Party positions are based on CHES raw positions, CHES OLS rescaled positions, CMP raw positions, and CMP OLS rescaled positions.

[15] Detailed regression results are presented in the Online Appendix.

[16] This time we present coefficient plots instead of the relative salience as we have done for Germany 2021 above. The reason for this is that all distance variables refer to the same scale and can thus be compared directly.

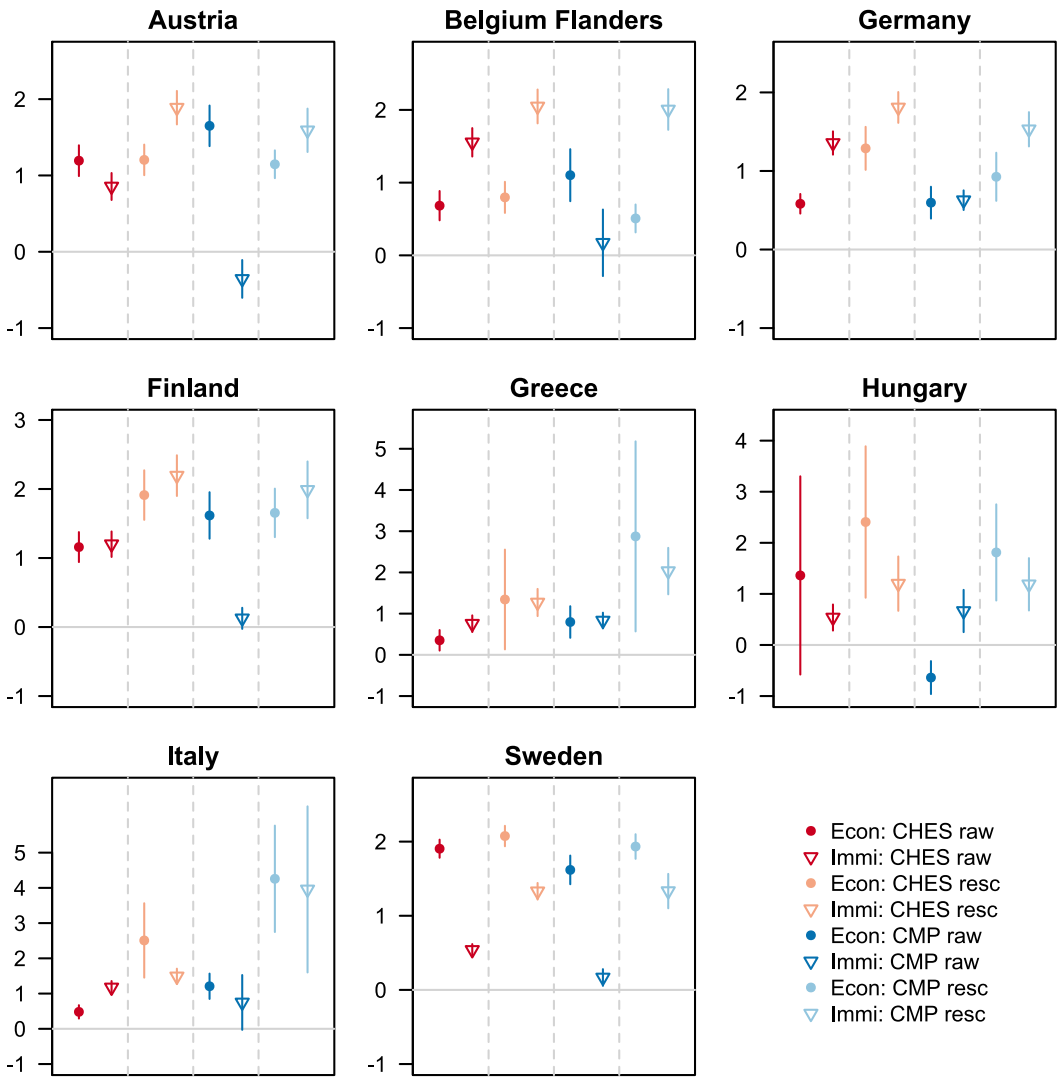

Fig. 9. Salience of economic and immigration issues in models of vote choice relying on different party position estimates, CSES.

Table A.1
Correlation CHES party positions on economic dimension.

	lrecon	spendvtax	deregulation	redistribution
lrecon	1			
spendvtax	0.94	1		
deregulation	0.95	0.92	1	
redistribution	0.95	0.94	0.93	1

Table A.2
Correlation CHES party positions on cultural dimension.

	galtan	sociallifestyle	immigrate_policy	multiculturalism
galtan	1			
sociallifestyle	0.95	1		
immigrate_policy	0.84	0.8	1	
multiculturalism	0.84	0.79	0.93	1

for voters of the centre-right while for voters of the Movimento 5 Stelle and Partito Democratico economic issues are more important. However, overall the results based on the rescaled party position are supported by literature relying on other salience measures. Considering that the salience pattern based on the rescaled party position estimates for CHES and CMP is generally similar, we are quite confident that the rescaling procedure is also advantageous with regard to substantial conclusions of the pattern of salience.

6. Conclusion

Party position estimates are essential for studying voting and representation. Often researchers need to combine party positions with data on voter preferences to calculate policy distances for vote choice models or to draw valid conclusions, e.g. on the salience of certain policy issues at a given election. However, research of this type suffers largely from data scarcity, since the standard election surveys seldom ask respondents for their perceptions of parties' policy positions. We address this issue by asking whether existing party position estimates based on external data sources, i.e. expert surveys and CMP coding based on the manifesto project, are good proxies for perceived party positions. We make use of the German Longitudinal Election Study and the Comparative Study of Electoral Systems to compare the performance of vote models that rely on these external data sources. We additionally propose a rescaling technique to better fit the party position estimates onto the voter distribution.

We choose the Bayesian Aldrich–McKelvey rescaling technique based on perceptual data as the benchmark to compare the performance of external party position estimates against. This rescaling technique

Table A.3
Results of conditional logit models using GLES, OES and CMP data.

	Dependent variable:				
	Vote choice				
	(BAM)	(OES)	(OES OLS)	(CMP)	(CMP OLS)
Distance on economic issue	−0.790***	−1.596***	−1.762***	−1.840***	−1.760***
	(0.033)	(0.068)	(0.089)	(0.083)	(0.086)
Distance on immigration	−0.675***	−1.232***	−1.366***	−0.500***	−1.116***
	(0.036)	(0.060)	(0.080)	(0.144)	(0.080)
Distance on climate change	−0.665***	−0.829***	−1.405***	−1.786***	−1.201***
	(0.034)	(0.050)	(0.070)	(0.079)	(0.069)
Mean thermometer scores	0.266***	0.225***	0.325***	0.363***	0.337***
	(0.017)	(0.016)	(0.016)	(0.016)	(0.016)
Observations	20,424	20,424	20,424	20,424	20,424
R^2	0.126	0.117	0.121	0.105	0.108
Max. Possible R^2	0.450	0.450	0.450	0.450	0.450
Log Likelihood	−4724.108	−4830.414	−4778.400	−4970.097	−4931.273

Note: *p < 0.1; **p < 0.05; ***p < 0.01 standard errors in parentheses.

makes use of the individually perceived party positions to transform both individual policy positions and perceived party positions onto a common policy scale. Our results show that this technique disentangles voters who tend to locate at positively connoted points on the scale, like the center on economic issues, or the progressive end on the issue of fighting climate change. Using these BAM-rescaled voter and party positions in a model of vote choice leads to a larger model fit than when using any combination of voters with external party positions. This notably holds although there is hardly a difference in the party configuration obtained based on BAM and expert position estimates. What presumably decreases the model fit for combinations with external party positions is the potential bias in the voter distribution, that we cannot eliminate without common anchoring points like perceived party positions.

The results further show that models based on expert placements perform generally better than models based on manifesto positions in that they more closely replicate the pattern of policy voting and issue salience that we detect based on the BAM-rescaled "true" position estimates. Rescaling the party positions by relying on an OLS transformation of party positions onto the partisan-opinion leaders always brings the results closer to this "true" pattern.

From a more general standpoint, our results show that there is no need to limit analyses of voting behavior to a single ideological scale, as long as there are survey items with which we can measure respondents' preferences on more concrete policy issues. Even if the question wording differs from the expert survey, this will presumably not bias the combination of expert and respondent data, since party positions are highly correlated on different concrete issues that address the same underlying, latent policy dimension, e.g. the economic or the cultural dimension. We hope that our findings stimulate much more research on policy voting in multi-dimensional policy spaces.

Declaration of competing interest

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Data availability

Data will be made available on request.

Appendix A

A.1. Correlation of party positions on the same latent dimension

See Table A.1.
See Table A.2.

A.2. Results vote choice models: GLES, OES and CMP

See Table A.3.

Appendix B. Supplementary data

Supplementary material related to this article can be found online at https://doi.org/10.1016/j.electstud.2023.102734.

References

Adams, James, Ezrow, Lawrence, 2009. Who do European parties represent? How Western European parties represent the policy preferences of opinion leaders. J. Polit. 71 (1), 206–223.
Adams, James, Merrill, Samuel, Grofman, Bernard, 2005. A Unified Theory of Party Competition. Cambridge University Press, Cambridge.
Aldrich, John H., McKelvey, Richard D., 1977. A method of scaling with application to the 1968 and 1972 presidential elections. Am. Polit. Sci. Rev. 71, 111–130.
Arter, David, 2020. When a pariah party exploits its demonised status: the 2019 Finnish general election. West Eur. Politics 43 (1), 260–273.
Bernauer, Julian, Giger, Nathalie, Rosset, Jan, 2015. Mind the gap: Do proportional electoral systems foster a more equal representation of women and men, poor and rich? Int. Political Sci. Rev. 36 (1), 78–98.
Best, Robin E., Budge, Ian, McDonald, Michael D., 2012. Representation as a median mandate: Taking cross-national differences seriously. Eur. J. Political Res. 51 (1), 1–23.
Bodlos, Anita, Ennser-Jedenastik, Laurenz, Haselmayer, Martin, Meyer, Thomas M, Müller, Wolfgang C, 2018. The Austrian election of 2017: an election won in the long campaign. In: 2017: Europe's Bumper. pp. 151–172.
Bornschier, Simon, 2010. The new cultural divide and the two-dimensional political space in Western Europe. West Eur. Politics 33 (3), 419–444.
Burlacu, Diana, 2020. Corruption and ideological voting. Br. J. Political Sci. 50 (2), 435–456.
Claassen, Ryan L., 2007. Campaign activism and the spatial model: Getting beyond extremism to explain policy motivated participation. Political Behav. 29, 369–390.
Clarke, Harold D., Whitten, Guy D., 2013. Hard choices in hard times: Valence voting in Germany (2009). Elect. Stud. 32, 445–451.
Dassonneville, Ruth, Nugent, Mary K, Hooghe, Marc, Lau, Richard, 2020. Do women vote less correctly? The effect of gender on ideological proximity voting and correct voting. J. Polit. 82 (3), 1156–1160.
Dinas, Elias, Gemenis, Kostas, 2010. Measuring parties' ideological positions with manifesto data - A critical evaluation of the competing methods. Party Politics 16 (4), 427–450.
Emanuele, Vincenzo, Maggini, Nicola, Paparo, Aldo, 2020. The times they are a-changin': party campaign strategies in the 2018 Italian election. West Eur. Politics 43 (3), 665–687.
Franzmann, Simon T., Giebler, Heiko, Poguntke, Thomas, 2020. It's no longer the economy, stupid! Issue yield at the 2017 German federal election. West Eur. Politics 43 (3), 610–638.
Franzmann, Simon, Kaiser, André, 2006. Locating political parties in policy space - A reanalysis of party manifesto data. Party Politics 12 (2), 163–188.
Giannetti, Daniela, Pedrazzani, Andrea, Pinto, Luca, et al., 2018. The rising importance of non-economic policy dimensions and the formation of the Conte government in Italy. Italian Political Sci. 13 (2), 27–44.

GLES, 2022. GLES Querschnitt 2021, Vorwahl. GESIS, Köln, http://dx.doi.org/10.4232/1.13860, ZA7700 Datenfile Version 2.0.0.
Golder, Matt, Stramski, Jacek, 2010. Ideological congruence and electoral institutions. Am. J. Political Sci. 54 (1), 90–106.
Griffin, John D., Newman, Brian, 2005. Are voters better represented? J. Polit. 67 (4), 1206–1227.
Hare, Christopher, Armstrong, David A., Bakker, Ryan, Carroll, Royce, Poole, Keith T., 2015. Using Bayesian aldrich-McKelvey scaling to study citizens' ideological preferences and perceptions. Am. J. Political Sci. 59 (3), 759–774, URL: http://dx.doi.org/10.1111/ajps.12151.
Henjak, Andrija, 2010. Political cleavages and socio-economic context: How welfare regimes and historical divisions shape political cleavages. West Eur. Politics 33 (3), 474–504.
Hooghe, Liesbet, Bakker, Ryan, Brigevich, Anna, De Vries, Catherine, Edwards, Erica, Marks, Gary, Rovny, Jan, Steenbergen, Marco, Vachudova, Milada, 2010. Reliability and validity of the 2002 and 2006 Chapel Hill expert surveys on party positioning. Eur. J. Political Res. 49 (5), 687–703.
Iversen, Torben, 1994. Political leadership and representation in west European democracies: A test of three models of voting. Am. J. Political Sci. 38 (1), 45–74, URL: http://www.jstor.org/stable/2111335.
Jankowski, Michael, Kurella, Anna-Sophie, Stecker, Christian, Blätte, Andreas, Bräuninger, Thomas, Debus, Marc, Müller, Jochen, Pickel, Susanne, 2022. Die positionen der parteien zur bundestagswahl 2021: Ergebnisse des open expert surveys. In: Politische Vierteljahresschrift, Vol. 63. Springer, pp. 53–72, (1).
Jessee, Stephen A., 2021. Estimating individuals' political perceptions while adjusting for differential item functioning. Political Anal. 29 (1), 1–18.
Jolly, Seht, Bakker, Ryan, Hooghe, Liesbet, Marks, Gary, Polk, Jonathan, Rovny, Jan, Vachudova, Marco Steenbergen AN Milada Anna, 2022. Chapel hill expert survey trend file, 1999–2019. Elect. Stud. 75.
King, Gary, Murray, Christopher J.L., Salomon, Joshua A., Tandon, Ajay, 2004. Enhancing the validity and cross-cultural comparability of measurement in survey research. Am. Political Sci. Rev. 98 (1), 191–207.
Kriesi, Hanspeter, Grande, Edgar, Dolezal, Martin, Helbling, Marc, Höglinger, Dominic, Hutter, Swen, Wüest, Bruno, 2012. Political Conflict in Western Europe. Cambridge University Press.
Kurella, Anna Sophie, Rosset, Jan, 2017. Blind spots in the party system: Spatial voting and issue salience if voters face scarce choices. Elect. Stud. 49, 1–16.
Lachat, Romain, 2008. The impact of party polarization on ideological voting. Elect. Stud. 27 (4), 687–698.
Lachat, Romain, 2011. Electoral competitiveness and issue voting. Political Behav. 33 (4), 645–663.
Lachat, Romain, 2018. Which way from left to right? On the relation between voters' issue preferences and left–right orientation in West European democracies. Int. Political Sci. Rev. 39 (4), 419–435.
Laver, Michael, Hunt, W. Ben, 1992. Policy and Party Competition. Routledge.
Lloren, Anouk, Wüest, Reto, 2016. Are opinion leaders better represented? West Eur. Politics 39 (4), 800–834.
Magistro, Beatrice, Wittstock, Nicolas, 2021. Changing preferences versus issue salience: The political success of anti-immigration parties in italy. South Eur. Soc. Politics 26 (3), 383–411.
Marks, Gary, Hooghe, Liesbet, Steenbergen, Marco R, Bakker, Ryan, 2007. Crossvalidating data on party positioning on European integration. Elect. Stud. 26 (1), 23–38.
Merrill III, Samuel, Grofman, Bernard, 1997. Symposium. The directional theory of issue voting: II: Directional and proximity models of voter utility and choice: A new synthesis and an illustrative test of competing models. J. Theor. Politics 9 (1), 25–48.
Meyer, Thomas M., Wagner, Markus, 2020. Perceptions of parties' left-right positions: The impact of salience strategies. Party Politics 26 (5), 664–674.
Okolikj, Martin, Goubin, Silke, Stiers, Dieter, Hooghe, Marc, 2022. Trust in political parties and ideological proximity voting in Europe: the role of trust in political parties as a heuristic mechanism. J. Elect., Public Opin. Parties 1–20.
Plescia, Carolina, Kritzinger, Sylvia, Oberluggauer, Patricia, 2020. Parties' issue strategies on the drawing board: the 2017 Austrian case. West Eur. Politics 43 (3), 639–664.
Poole, Keith, Lewis, Jeffrey, Rosenthal, Howard, Lo, James, Carroll, Royce, 2016. Recovering a basic space from issue scales in R. J. Stat. Softw. 69 (7), 1–21.
Rosset, Jan, Kurella, Anna-Spohie, 2021. The electoral roots of unequal representation. A spatial modelling approach to party systems and voting in Western Europe. Eur. J. Political Res. 60 (4), 785–806.
Rosset, Jan, Stecker, Christian, 2019. How well are citizens represented by their governments? Issue congruence and inequality in Europe. Eur. Political Sci. Rev. 11 (2), 145–160.
Rovny, Jan, Polk, Jonathan, 2019. New wine in old bottles: Explaining the dimensional structure of European party systems. Party Politics 25 (1), 12–24.
Schofield, Norman, 2004. Equilibrium in the spatial 'valence' model of politics. J. Theor. Politics 16 (4), 447–481.
Shah, Dhavan V., Scheufele, Dietram A., 2006. Explicating opinion leadership: Nonpolitical dispositions, information consumption, and civic participation. Political Commun. 23 (1), 1–22.
Shikano, Susumu, 2008. Die eigendynamik zur eindimensionalität des parteienwettbewerbs: eine simulationsstudie. In: Politische Vierteljahresschrift, Vol. 49. pp. 229–250, (2).
Simas, Elizabeth N., 2013. Proximity voting in the 2010 US House elections. Elect. Stud. 32 (4), 708–717.
Stecker, Christian, Tausendpfund, Markus, 2016. Multidimensional government-citizen congruence and satisfaction with democracy. Eur. J. Political Res. 55 (3), 492–511.
Thomassen, J., 2012. The blind corner of political representation. Representation 48 (1), 13–27.
Volkens, Andrea, Burst, Tobias, Krause, Werner, Lehmann, Pola, Matthieß, Theres, Regel, Sven, Weßels, Bernhard, Zehnter, Lisa, 2021. The manifesto data collection. Manifesto project (MRG/CMP/MARPOR). versions 2021a.
Walgrave, Stefaan, van Erkel, Patrick, Jennart, Isaïa, Lefevere, Jonas, Baudewyns, Pierre, 2020. How issue salience pushes voters to the left or to the right. Politics Low Countries 2, 319.