

# Conceptualizing Left and Right in comparative politics: Towards a deductive approach

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## Abstract

Despite the importance of the Left–Right dimension in comparative politics, establishing an index that captures this dimension in both a theoretically and empirically sound manner remains an ongoing challenge for political scientists. Having reviewed existing attempts to construct measures for the Left–Right dimension, and having concluded that they are merely inductive and problematic from a methodological perspective, this article proposes a deductive approach based on Norberto Bobbio’s theory of Left and Right and suggests a combination with statistically robust measures drawn from the data provided by the Comparative Manifesto Project (CMP). The fundamental features of the proposed index are: first, Left and Right are theoretical concepts which should be accounted for in the empirical analysis. Second, the Left–Right dimension is time- and country-specific. Third, different statements have different meanings on a Left–Right scale. Fourth, the importance of the Left–Right dimension itself varies over time and across countries. Finally, the data have to be analysed adequately.

## Keywords

ideological tendencies, industrialized democracies, Left–Right classification, political parties, statistical analysis

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## Introduction

The major category in comparative political analysis in highly industrialized societies is the distinction between Left and Right positions. Parties' and governments' ideological positions on a Left–Right scale are the major variables for the explanation of party competition, coalition-building and policy outcomes. Since programmatic positions are different in various countries and change over time, we need a country- and time-sensitive measure. This measure can be drawn from party documents which are published on a regular basis (e.g. election manifestos). Even though party manifestos are not written to inform citizens about a party's position on a Left–Right dimension, but rather to accommodate strategic challenges in order to win an election (Laver, 2001), they can be used to deduce a party's underlying ideological position. In order to do so, the selection and evaluation of statements that may constitute a Left–Right index is of utmost importance.

Constructing indices for the Left–Right dimension from party manifesto data was first carried out in the Comparative Manifesto Project (CMP) (Laver and Budge, 1992). The project's approach of identifying a *Right–Left Index* (RILE) was criticized on several grounds. In recent years, alternative methods have been introduced to measure a common political dimension (Gabel and Huber, 2000) or an alternative Left–Right scale (Franzmann and Kaiser, 2006). Even though these contributions have unquestionably advanced our knowledge of how party positions change over time and across countries, their main drawback lies in the use of inductive inference. Using a deductive approach, this article generates a theoretical framework that elaborates the Left–Right dimension by referring to the ideological roots that lie at the core of this political distinction.

The article also aims to meet the challenge of supplying a Left–Right index that uses party manifesto data and is suitable for use in modern political science analysis, such as spatial analysis. Spatial analysis is thus mainly conducted by the use of ideological positions as determined by expert judgements (Benoit and Laver, 2006; Laver and Hunt, 1992; Warwick, 2006). These, however, are not as time variant as the manifesto data. The index developed in this article can also be used to identify party coherence and veto player functions (Jahn, 2010c; Jahn and Oberst, 2010). In sum, the index presented attains the social sciences' theoretical objective of combining political theory and empirical research (Biezen and Saward, 2008) and the technical objective of supplying a time- and country-specific Left–Right index from party manifesto data.

The article is structured as follows: first, we provide a summary of the methods the CMP used to construct its RILE index. We then look at such recently developed alternatives as the 'Vanilla approach' by Matthew Gabel and John Huber (2000) and the party-oriented approach by Simon Franzmann and André Kaiser (2006). Criticizing these approaches mainly on grounds of their inductive procedures and their methodological treatment, we develop an alternative Left–Right index, which starts out from a clearly defined theoretical perspective in order to identify political parties' Left and Right positions. In the final part, we test the validity of our index and give some examples for its empirical application.

## Left–Right scores from CMP data

Several Left–Right indices have been constructed from CMP data. In order to develop a new index that overcomes the problems of these scores, we briefly review the advantages and drawbacks of previous research efforts.

### *The RILE of the party manifesto group*

The original purpose of the analysis of the CMP was to differentiate between spatial models and saliency theory. In the latter, political parties strive to increase the saliency of their favoured issues. In this view, issue ownership and not maximizing votes based on parties' Left–Right position is the central point of interest (Budge et al., 1987). Given this coding scheme, some scholars question whether it is at all possible retrospectively to create a Left–Right index from the party manifesto data (Harmel et al., 1995; Laver and Garry, 2000). In the early 1990s, however, Michael Laver and Ian Budge (1992) indeed constructed a Left–Right score from CMP data that was later applied in studies by the party manifesto group as RILE (*Right–Left Index*) (Budge et al., 2001; Klingemann et al., 1994, 2006; McDonald and Budge, 2005).

The RILE was constructed rather inductively by qualifying statements as Left or Right by merit of their factor loadings.<sup>1</sup> These statements constitute the Right–Left Index by summing up the relative frequencies of 13 Right statements and subtracting the relative frequencies of 13 Left statements from a total of 56 statements. The high number of statements defining both the Left and Right dimensions of the index makes it particularly difficult to explain why some parties behave peculiarly (Pelizzo, 2003). Others have also noted inconsistencies with the RILE. Hans Keman (2007: 4) concludes that:

[The inclusion of aspects like] military, constitutionalism, morality, law and order, democracy, and so on . . . in a Left–Right scale . . . is not only confusing, but also wrong. . . . Including *other* matters of serious dispute that divide political parties and their constituencies is certainly relevant for understanding electoral politics and party systems, as well as policy-making by government. Yet reducing these complex differences into one dimension or using simple dichotomies is bad for comparability and conceptual clarity.<sup>2</sup>

In addition, Keman points out that a one-dimensional analysis would not be appropriate for most Western societies. Even though these suggestions (reducing the items for a Left–Right scale and taking other dimensions into account) are highly relevant and constructive, Keman's alternative concepts fail to refer to the theoretical meaning of Left and Right as well.

### *Making it simple: The 'Vanilla' approach*

While the RILE is constructed in a rather complex way, Gabel and Huber (2000) develop a more straightforward approach. They start out from the proposition that it is difficult to make substantial claims about which issues refer to the Left and which to the Right. This viewpoint acknowledges an inherent infeasibility in deductively constructing a Left–Right scale from the CMP data. In order to identify an underlying ideological dimension,

Gabel and Huber use all statements in an unrotated factor analysis. They use the first factor in order to calculate a 'superdimension', which more or less fits a Left–Right dimension.<sup>3</sup>

This 'superdimension' can be calculated in various ways with different theoretical implications. Since the scale is dependent on the period chosen and the countries selected, we obtain different scores depending on which selection we choose. If all countries in the CMP dataset are included for all years available, a common score can be obtained, which implies that the superdimension has the same meaning for the entire time period and for all countries. However, the method allows for construction of country-specific scores by either one country being selected for all years or by various countries being included for a certain time period.

A key advantage of the Vanilla method lies in its ability to identify time- and country-specific scores. It has often been claimed that the semantics of Left and Right have changed over time and are dependent on country-specific conditions (Bartolini, 2000; Benoit and Laver, 2006; Kitschelt and Hellemans, 1990). However, the disadvantage of the Vanilla method is that its main dimension has no theoretical reference and meaning and that the scores change when different countries or time periods are included in the analysis.

### *Let the parties decide for themselves*

Franzmann and Kaiser (2006: 166) present the idea that parties determine the Left–Right dimension themselves: 'The one axiom we start with is that left issues will generally be emphasized by left-wing parties and vice versa.' Basically, they conduct a linear OLS regression analysis where the individual statement of the CMP is the dependent variable and the major parties in a party system are included as dummy variables. If the results are significant, they consider the statement to be an issue of salience for either the Left or the Right dimension. If the results are insignificant, the issue is considered as a valence issue that is not relevant for the positions of a party. After identifying the salient issues, the Left issues are subtracted from the Right issues, as in the CMP procedure, and then divided by the sum of all issues (Left, Right and valence).<sup>4</sup>

Before presenting their data, Franzmann and Kaiser (2006: 173) apply a smoothing procedure. This seems to be necessary since parties use election manifestos as informational short cuts through which they communicate major policy shifts to voters (see also Adams et al., 2004). This smoothing is done by averaging the results over three elections to adjust for different durations of legislative terms. The drawback of this procedure is that it cuts the time period and the scores for the most recent and the first elections.

The party-oriented classification of identifying a dominant ideological dimension is extremely useful when considering special national scores. It is a sensible method by which to identify the dimension that most strongly separates the parties in a political system. However, to call such a dimension Left–Right is a heroic guess, since there is no evidence of what constitutes the dominant dimension in each country.<sup>5</sup> Another point of concern is the sensitivity of the method vis-a-vis changes in party positions when using different time periods. This implies that the Left–Right score changes even for past years when we continue a time series. The consequences become obvious when we compare the data analysis up to 1998 (Franzmann and Kaiser, 2006) and the analysis

including the new CMP data up to 2004.<sup>6</sup> It is an undesirable effect that the previous party positions change when we obtain new data. Furthermore, there are methodological concerns in regard to the procedure. Neither the RILE nor the Franzmann–Kaiser (FK) scores take into account that statements may have different degrees of leftness and rightness. Once identified, they treat each item with equal weight. Although it has been claimed that the statements in the party manifesto data distinguish different degrees of Left and Right, and that there is a hierarchy of Left and Right statements that is important in the construction of an ideological index (McDonald et al., 2007: 3),<sup>7</sup> these two indices fail to make a distinction between how strong different Left and Right statements are regarding the degree to which they are Left or Right. In this respect, the Vanilla method is superior, since it uses the regression scores of the factor analysis.

With regard to methodological aspects, Franzmann and Kaiser (2006) criticize the CMP for using factor analysis, which they claim not to be reliable for many variables and few observations. However, in this respect a regression analysis with only 13 observations (Germany) and five independent variables is not more reliable. In addition, as with linear factor analysis, it is not appropriate to use OLS regression models for count variables, a point which I return to later. To sum up the findings thus far: in reference to the deficiency of the established Left–Right indices from party manifesto data, a Left–Right index should meet the following criteria concerning the scale inputs (what should be the components of an index), the generalizability and specificity over time and countries, the construction of a scale (weighted equally or differently) and methodological aspects (count variables):

- Generalizability depends on what we think is Left and Right. Left and Right have defining elements that are distinguishable from other ideological dichotomies and which are valid over time and countries. This issue has been raised by Benoit and Laver (2006) when they have referred to an ‘a priori approach’. However, they use the experts’ opinions as a priori judgements of Left and Right. With that, they have no problem themselves defining what is Left and what is Right. Although in this perspective Left and Right are set a priori by the experts, we do not really know what the experts mean by these or whether they agree in their judgements. This means that we have to determine which components belong in a Left–Right index (scale input). Therefore, in our index we refer to political theory and philosophy in order to identify the core aspects of Left and Right.
- In order to resolve the issue that Left and Right are, on the one hand, stable over time (otherwise we could not speak of Left and Right meaningfully) and that, on the other hand, Left and Right change over time and context (otherwise they could not adjust to current developments), we separate Left and Right into a core that is valid and stable over time and context, on the one side, and other components which are associated with the core Left–Right in specific periods and countries, on the other side (issue ownership).
- In constructing such an index we must take the degree of leftness and rightness of the various statements into account, as pointed out by McDonald et al. (2007). Another construction issue is that the scale must be open to changes over time without changing the score values in the past, as does the FK index and the Vanilla approach.

- The calculation of the Left–Right scale must take methodological issues of data quality into account. Since party manifesto data are count variables, we cannot use statistical procedures, such as factor analysis and simple OLS regressions, which are not suitable for such variables.
- Furthermore, it must be possible to estimate the significance of the Left–Right dimension over time and across countries. This is essential for at least two reasons: first, in order to estimate the degree to which the Left–Right dimension is significant as an *explanans* across various countries and over time, and, second, in order to determine the indifference curves in spatial analysis.

In what follows we develop a Left–Right scale that accounts for the above-mentioned aspects.

## A deductive approach to the Left–Right dimension

The major difficulty of the above-mentioned studies is their strong emphasis on inductive inference. Naturally, as an inductive approach is in line with the scores of the dataset, such an approach is most likely to produce significant results. However, the meaning of this dimension is less clear. Referring to their Left items, Klingemann et al. (2006: 5–6) state: ‘There is after all no logical or inherent reason why support for peace should be associated with government interventionism.’ This is only justified because these statements are mentioned together by political parties: ‘The fact remains however that party ideologies *do* put them together’ (emphasis in original). However, a deductive scale would make interpretation much easier and answer the question whether what we have conceptualized as Left and Right remains valid in practical politics today. Both Gabel and Huber’s (2000) and Franzmann and Kaiser’s (2006) inductive analyses may help in identifying the major ideological dimensions; however, it remains unclear whether the results of these analyses are still related to the concepts of Left and Right. From their analyses we have to accept, for instance, that ‘Left’ in Sweden and Italy is defined, among other things, by opposing European integration. It may be that in some countries Left parties are more sceptical of European integration than in others. However, this does not imply that this attitude is constitutive of a Left ideology.

The trade-off between an inductive approach to identifying the meaning of Left and Right which is country sensitive, on the one hand, and a predefined Left–Right index which guarantees comparability and generalizability, on the other, has been discussed at length by Benoit and Laver (2006). However, they take an a priori approach that applies the predetermined ideological opinions of experts to identify the ‘real’ meaning of Left and Right. However, even if we take experts’ opinions as an a priori judgement of Left and Right, we know very little about the meaning. Experts might have different opinions and Benoit and Laver are not very concerned about the meaning of Left and Right except insofar as it relates to economic policy or a combination of social and economic policy.<sup>8</sup> An alternative way of obtaining a deductive Left–Right index, which we follow in this article, refers to political theory and philosophy.

In order to combine normative theory with empirical studies – its importance for obtaining deeper insight pointed out recently (Biezen and Saward, 2008) – we refer to

Norberto Bobbio's (1996) work *Left and Right: The Significance of a Political Distinction* in order to construct a deductive scale.<sup>9</sup> In his book, Bobbio traces the history of the political thought of both Left and Right. He explores this elusive distinction and argues that Left and Right are ultimately divided by different attitudes to equality. He points out that the Left strives for greater equality and that the Right legitimizes inequality. The policy of the Left aims at making those who are unequal more equal. In order to achieve this goal, the Left favours the welfare state and the right general education (Bobbio, 1996: 71). Thus the welfare state and the right to higher education are means towards the abolishment of inequality (the ends).

Defining the Right is more complex. As Bobbio points out, there are two ways of legitimizing inequality. Starting out, on the one hand, from Rousseau's (1992) premise that men are born equal but are made unequal by civil society and, on the other, from Nietzsche's (1973) premise that men are born unequal by nature and that this, in turn, is good for the structure of society, Bobbio (1996: 68–9) points out:

Just as Rousseau saw inequality as artificial, and therefore to be condemned and abolished for contradicting the fundamental equality of nature, so Nietzsche saw equality as artificial, and therefore to be abhorred for contradicting the beneficent inequality which nature desired for humanity. The contrast could not be starker: the egalitarian condemns social inequality in the name of natural equality, and the anti-egalitarian condemns social equality in the name of natural inequality.

This distinction between the different ways of legitimizing inequality refers to the fact that the Right is not a united force in terms of the concept of equality and inequality. These different concepts of equality are mirrored in the three great classical ideologies of the 19th and 20th centuries: Conservatism, Liberalism and Socialism (Bobbio, 1996: 49).

While Socialism (Left) is concerned with equality, Conservatism and Liberalism (Right) justify inequality in the ways described above. Conservatives follow Nietzsche's conviction and consider inequality as given by nature. Traditions and a natural social order place men and women in the hierarchical order necessary for an organic society and help members of society to live in social and physical harmony with each other. In contrast, Liberalism follows the idea that human activities determine men's and women's own destiny in the ranks of the social order. The unable and lazy are poor, while the able and industrial are rich. Allowing individuals to fulfil their own potential is reliant on the protection of individual freedom, which implies liberation from state involvement. Freedom is therefore a key category for Liberalism. Free market economy, free enterprises and minimal state regulation are its basic claims. By referring to the basic concepts of equality and inequality and the various ways of legitimizing them, we obtain a parsimonious way of conceptualizing the core of Left and Right.

### *Empirical aspects*

Applying Bobbio's insights about Left and Right to an empirical analysis of party manifestos needs consideration of the 56 statements in light of their relation to equality and

inequality. By doing so, we can deduce the degree of leftness or rightness. Undoubtedly, radical statements of the Left include claims of the nationalization of enterprises and government control of the economy. Additional Left arguments – though probably weaker – are the claims for economic planning and market regulation. All these statements obtain their leftness from the idea of regulation on the free market, which means that these four statements are directed particularly against the Liberal Right and not so much against the Conservative Right. Other statements, such as the expansion of the welfare state and education (Bobbio, 1996: 71), are much weaker and not clearly Left. If at all, these statements lean towards a preference for more equality, but they certainly do not represent a constitutive part of a Left ideology. In particular, welfare state expansion represents a compromise between free market capitalism and Socialism and should not therefore be considered as a core Left or Right statement (Dahrendorf, 1959).

Turning to the Right, it is not as easy to identify statements according to their degree of Liberalism and Conservatism. The most radical Liberal statement from a leftist point of view is rejection or retrenchment of the welfare state. This statement rejects the compromise between capital and labour and is an affront to Left ideology. The most radical statement that describes Liberalism (and is included as a statement in the CMP data) is the claim of ‘Free Enterprise’. Reference to ‘Economic Orthodoxy’ may also belong to a Liberal discourse, although this presumably is less radical. While these three statements are clearly Liberal, it is more difficult to assign the statement about freedom to the Liberal cluster.<sup>10</sup>

Statements that meet the criterion of Conservatism should refer to tradition and natural social order. The most radical statement in the CMP data is ‘Traditional Morality: positive’. The appeal to ‘Social Harmony’ refers to the concept of a natural social order, although it is not as clear-cut since its reference to social solidarity meets the claim of social justice and could also be used by actors on the Left. Another statement which may refer to Conservative attitudes can be found in the support of the ‘National Way of Life: positive’. We refrained from including statements such as ‘Law and Order: positive’ or ‘Political Authority: positive’ because authoritarianism as such is not really at the core of Conservative ideology. As Bobbio convincingly demonstrates (1996, ch. 7; in particular 78–79), authoritarian standpoints better describe the distinction between extremists and moderates for both the Right and Left positions. Thus, it is also interesting to point out the similarities between the radical Left and the radical Right:

a left-wing extremist and a right-wing extremist share a rejection of democracy . . . . Their rejection of democracy brings them together, not because of their position on the political spectrum, but because they occupy the two extreme points of that spectrum. The extremes meet. (Bobbio, 1996: 21)

In turn, this means that the reference to democracy leans neither to the Left nor to the Right, but is instead a measure by which to grasp the degree of radicalism. Table 1 summarizes the statements that we use in further analysis of the Left–Right dimension of political parties in highly developed democratic industrial societies. The table ranks these statements according to their correspondence with the core of the three classical ideologies of the 19th and 20th centuries.

**Table 1.** Core Left–Right statements

<i>Left</i>		<i>Right</i>
<i>Socialism</i>	<i>Liberal</i>	<i>Conservative</i>
Nationalization (per413)	Welfare State Limitation (per505)	Traditional Morality (per603)
Controlled Economy (per412)	Free Enterprise (per401)	Social Harmony (per606)
Economic Planning (per404)	Economic Orthodoxy (per414)	National Way of Life (per601)
Market Regulation (per403)		

*Explanation:* Statements for each dimension are shown from top to bottom in order of degree. The ‘per’ number refers to the statements as mentioned in Budge et al. (2001) and Klingemann et al. (2006).

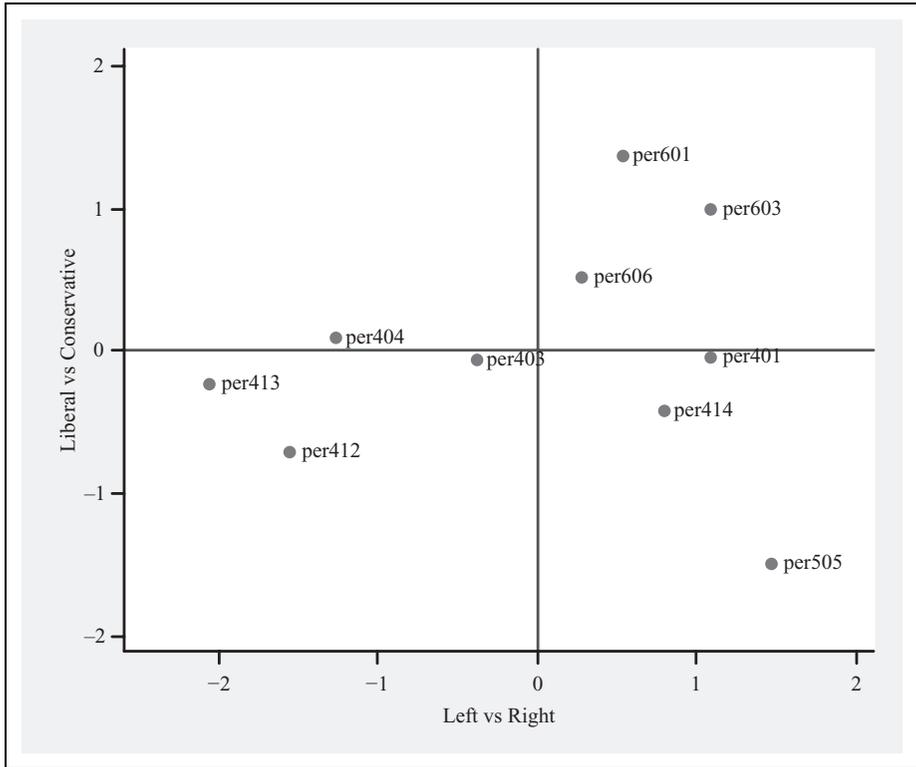
We can derive the following assumptions from the theoretical analysis: first, as pointed out above, there may be a hierarchy of importance of the CMP statements according to their association with the concept of equality or inequality. Second, if the analytical conclusion that the Left has a one-dimensional claim while the Right is divided into Conservatives and Liberals is correct, the results should reflect this triangular constellation. However, this would also mean that the very concept of Left and Right is not one-dimensional but refers to at least two dimensions made up of the three ideologies. If that is so, the endeavour of constructing a one-dimensional Left–Right scale can have only limited success. We chose not to elaborate on this point in this article in order to keep the presentation short (for a discussion and empirical analysis of the dimensionality of Left and Right, see, for instance, Marks et al. [2002] and Benoit and Laver [2006]).

In order to construct a new index that meets all the criteria mentioned above, we apply a three-step approach. First, we construct a general index deduced from political philosophy and which is generalizable over countries and over time (the core of Left and Right). Second, we use regression analysis in order to identify country- and time-specific components of Left and Right. Finally, we sum up both components in a new Left–Right index.

For the first step, we apply the multidimensional scaling technique. Multidimensional scaling (MDS) is a set of data analysis techniques that displays the structure of distance-like data as a geometrical picture (Cox and Cox, 2001; Coxon, 1982). An advantage of MDS over factor analysis is that we can use it for count variables.

The choice of time periods and countries is highly relevant for the analysis. The RILE is based on an analysis of 10 or 11 countries for the period stretching from the second half of the 1940s until around 1983. A reason for this selection has not been provided, except for data availability. We decided to use the post-Second World War data until the oil crisis in 1973 (the cut-off date is 1 October 1973). The oil crisis represents a date when the continuity of post-war development was questioned for the first time to any significant degree. After this date, some countries (above all Norway and Denmark) experienced major changes in their party systems (although because of the issue of European integration). Deciding on this time period excludes the new European democracies of Greece, Spain and Portugal from calculation of the core Left–Right statements.<sup>11</sup>

With respect to the selection of countries, we include all established and democratic OECD countries in order to identify a Left–Right dimension. We experimented with different samples. For instance, it could be argued that the Left–Right semantic is mainly a



**Figure 1.** Derived stimulus configuration plot (Euclidean distance model)

*Explanation:* Nationalization (per413); Controlled Economy (per412); Economic Planning (per404); Market Regulation (per403); Welfare State Limitation (per505); Free Enterprise (per401); Economic Orthodoxy (per414); National Way of Life (per601); Traditional Morality (per603); Social Harmony (per606). Number of observations = 792. The 'per' number refers to the statements as mentioned in Budge et al. (2001) and Klingemann et al. (2006).

European issue and is less relevant to the new world countries and Japan. However, this hypothesis is not convincing, since Left and Right are understood differently from one European state to the next (Bartolini, 2000).<sup>12</sup> Figure 1 shows the plot of the derived stimulus configuration of the core statements introduced above for Left, Liberal and Conservative ideologies, respectively. The analysis is based on a two-dimensional solution.

The plot clearly shows a triangle, demonstrating that the Right is divided into Conservative and Liberal camps.<sup>13</sup> On the whole, all ideological statements group into the hypothesized categories. The plot shows strikingly that Controlled Economy, Economic Planning and – to a very impressive degree – Nationalization are the most radical Left statements. Market Regulation is a more moderate Left statement. In the Liberal ideology, Welfare State Limitation and the claim for Free Enterprise are, as predicted, the most radical Right statements. The three Conservative statements all fall perfectly together. The plot also demonstrates that the Conservative statements make their own

dimension and are isolated from the Liberal Right statements. In terms of Left and Right, the reference to Traditional Morality is the most radical Conservative statement and Social Harmony the least radical. The analysis also shows that Left items are more in opposition to the Liberal statements than to the Conservative.

Overall, the data align impressively with the theoretically deduced positions, supporting the chosen deductive approach. In the next step, we use the empirical findings from the theoretical statements for a Left–Right score of political parties in highly industrialized democracies. In order to construct a Left–Right scale of the core statements, we weight the frequency of each statement with the stimulus coordinates of the first (Left–Right) dimension.<sup>14</sup> This index we call LR\_core:

$$\begin{aligned} \text{LR\_core} = & (\text{per413}_p * S_{\text{per413}}) + (\text{per412}_p * S_{\text{per412}}) + (\text{per404}_p * S_{\text{per404}}) \\ & + (\text{per403}_p * S_{\text{per403}}) + (\text{per505}_p * S_{\text{per505}}) + (\text{per401}_p * S_{\text{per401}}) \\ & + (\text{per414}_p * S_{\text{per414}}) + (\text{per603}_p * S_{\text{per603}}) + (\text{per606}_p * S_{\text{per606}}) \\ & + (\text{per601}_p * S_{\text{per601}}) \end{aligned} \quad (1)$$

Explanation:  $p$  = percentage of statement;  $S$  = stimulus coordinate scores of the first dimension of each statement (per).

At this point, it could be argued that the core issues are not sufficient for parties to be placed on a Left–Right scale. Further statements might have become relevant over time or in different contexts. Therefore, we include additional statements that correlate highly with the core Left–Right score in specific time periods and countries. We also investigate how far the Left–Right dimension is relevant in specific time periods and countries. Both aspects are discussed in further detail in the next two sections.

### *Extra Left–Right statements*

In the next step, we identify extra Left–Right statements, that is, statements that are country and time variant and grasp the changing meaning of Left and Right. These statements are identified by an inductive procedure, and for this we use the core Left–Right score, as developed above, as an independent variable for each statement not included in the core Left–Right index. If the absolute value of the  $z$ -value (coefficient divided by standard error) is greater than  $\pm 2$  we include the statement as an extra Left–Right issue (LR\_plus).<sup>15</sup> Otherwise we do not use it as a component of the Left–Right index. In order to obtain country- and time-specific scores, we use moving time periods in each country, starting from the period of the first post-war election up until the last election before 1 October 1973. Then we use the period from the second post-war election until the first election after October 1973 and so on until we reach the last election in the CMP data for each country.

In order to account for the non-normal distribution, we apply three different regression models: a normal OLS regression model, a poisson regression model and a negative binomial regression model (Cameron and Trivedi, 1998; Hilbe, 2007). In some instances, count variables approximate a normal distribution. In this case, a linear

regression is acceptable (Hoffmann, 2004: 101). More often, however, the frequencies of the statements have a rapidly descending tail, that is, their occurrence is a rare event. Therefore, the distribution of variables often peaks at 1 or 2 (or the respective percentage value) and then becomes much rarer at higher values. Count variables, especially when they gauge rare events, often follow a Poisson distribution (Cameron and Trivedi, 1998). However, Poisson regression models are only appropriate in the case of rare events and granted that the variance more or less equals the mean. Closer inspection of the statements shows that this is not true in most cases for CMP data. If the variance is much larger than the mean, one speaks of overdispersed variables. Given that the dependent variable is overdispersed, an alternative approach for rare events has to be used; namely the negative binomial regression (NB) model. As a rule we used the threshold of the overdispersion parameter  $\alpha = 1$  until we switched from Poisson models to NB. In the rare cases where the dependent variable approximated a normal distribution, we used linear OLS. In addition to relying on statistical parameters, we further inspected all variables and bivariate correlations visually (histograms and scatter plots) in order to make a judgement of the appropriate model. This is also important because sometimes there are too few positive observations for calculations to be conducted reliably. In this case, statements have not been considered for the indices.<sup>16</sup>

The statements that have been identified as extra statements by the regression analyses have been entered in a new MDS analysis for the respective time periods in the countries. Their stimulus scores on the first dimension<sup>17</sup> of these extra statements (LR\_plus) have been added to the stimulus scores of the core Left–Right statements (LR\_core) in order to arrive at the final Left–Right (LR) score:

$$\text{LR\_plus} = \Sigma (\text{LRX}_{\text{per}} * \text{LRX}_S) \quad (2)$$

Explanation: LRX = extra statements identified through regression analysis; per = percentage of the *i*'s statements; S = stimulus coordinate score of the *i*'s statement.

$$\text{LR} = \text{LR\_core} + \text{LR\_plus} \quad (3)$$

### *Importance of the Left–Right dimension*

Identifying the importance of an ideological dimension is essential in spatial analysis (Benoit and Laver, 2006; Tsebelis, 2002; Warwick, 2006). An easy way of identifying the importance of the Left–Right dimension in countries over time is by summing up the percentage score of the Left and Right statements and dividing this by all statements mentioned. In this way we get a simple percentage value for the Left–Right dimension (LR\_imp). The index shows the strength of the affinity of the Left–Right dimension over time and in different countries. This score can be compared to the importance of the core Left–Right statements (LR\_core\_imp). Comparing both importance scores gives insight into the changing meaning of Left and Right across time and space.

**Table 2.** Correlations between different Left–Right indices and importance of the Left–Right dimension

	LR/ RILE	LR/FK	LR/ Vanilla	LR/BL	RILE/ FK	RILE/ Vanilla	RILE/ BL	LR Importance
Australia	0.700	0.768	0.560	0.776	0.659	0.653	0.612	56.50
Austria	0.613	0.740	0.529	0.616	0.615	0.589	0.351	42.49
Belgium	0.725	0.539	0.530	0.234	0.635	0.646	0.426	53.04
Canada	0.833	0.797	0.762	0.747	0.865	0.828	0.813	51.66
Denmark	0.913	0.820	0.937	0.793	0.851	0.873	0.801	60.26
Finland	0.650	0.696	0.794	0.647	0.695	0.537	0.506	49.47
France	0.916	0.870	0.790	–	0.833	0.747	–	69.26
Germany	0.740	0.783	0.562	0.652	0.743	0.593	0.695	46.55
Greece	0.833	0.859	0.318	0.586	0.832	0.382	0.560	76.01
Iceland	0.505	0.567	0.722	0.629	0.665	0.538	0.463	39.85
Ireland	0.593	0.585	0.591	0.566	0.622	0.509	0.564	27.42
Italy	0.536	0.764	0.625	0.692	0.263	0.523	0.611	48.56
Japan	0.382	0.502	0.148	0.316	0.603	–0.070	0.544	39.01
Luxembourg	0.825	0.628	0.644	0.466	0.770	0.671	0.611	34.96
Netherlands	0.879	0.791	0.813	0.483	0.852	0.803	0.650	67.36
New Zealand	0.748	0.773	0.764	0.782	0.770	0.736	0.669	56.48
Norway	0.924	0.892	0.857	0.692	0.864	0.844	0.701	64.49
Portugal	0.238	0.799	0.962	0.666	0.143	0.236	0.095	58.94
Spain	0.871	0.803	0.850	0.858	0.734	0.816	0.797	35.91
Sweden	0.898	0.858	0.863	0.802	0.876	0.819	0.791	69.58
Switzerland	0.862	0.851	0.861	0.813	0.812	0.810	0.747	54.79
United Kingdom	0.830	0.795	0.886	0.344	0.832	0.754	0.531	40.95
United States	0.586	0.797	0.511	0.772	0.707	0.851	0.716	35.68
Average	0.722	0.751	0.690	0.633	0.706	0.639	0.602	51.27
Standard deviation	0.184	0.111	0.202	0.214	0.183	0.226	0.170	13.01
Minimum	0.238	0.502	0.148	0.234	0.143	–0.070	0.095	27.42
Maximum	0.924	0.892	0.962	0.858	0.876	0.873	0.813	76.01
Overall cases	0.701	0.728	0.505	0.644	0.636	0.537	0.607	52.51

### Empirical application

The following analyses are examples of how the indices can be used in applied research. They are not intended to generate exhaustive explanations.<sup>18</sup> First, we compare our Left–Right index with the indices constructed from both CMP data and the most recent expert judgements (Benoit and Laver, 2006, 2007). Second, we give an example of spatial analysis which includes party positions and their intensity in a two-dimensional policy space. At this point we compare the Democrats and the Republicans in the United States of America with Germany’s Green Party.

In order to test the validity, it is common practice to compare a new index with established indices (Munck and Verkuilen, 2002; see also Adcock and Collier, 2001). We compare the LR index developed in this article with the RILE Index, the Vanilla index,<sup>19</sup> the index developed by Franzmann and Kaiser (FK) and the Left–Right index of Benoit

and Laver (BL). However, only the RILE, the Vanilla and our index are strictly comparable. The FK index is smoothed and therefore has less variance. The BL index is constant over time. Our major concern is comparing between the RILE and LR indices, because both measure the same concept (a Left–Right dimension) and apply the same estimates (original data at elections).

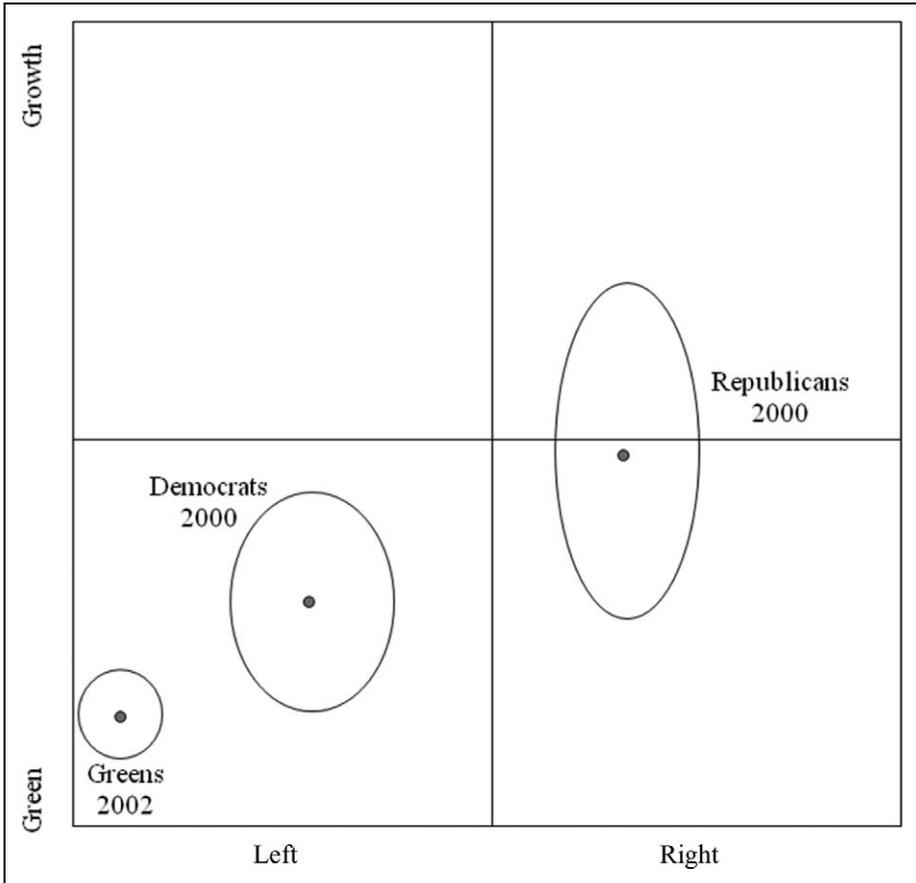
The indices of the Vanilla and FK method do not consider an explicit Left–Right dimension but rather a ‘superdimension’ or the dominant dimension defined by the parties. If these dimensions are closely correlated with the Left–Right index, it can be concluded that the Left–Right semantic retains a status in the respective country. If the correlation is relatively low, the dominant dimension and the Left–Right dimension depart from each other. For instance, one would expect the Left–Right dimension to be less clearly correlated with these dimensions in Ireland and perhaps in the USA and Japan.

Overall, there is agreement between the RILE and LR indices; particularly in Norway, Sweden, Denmark and France there is high consistency across all indices. For Portugal, the opposite is the case. Here the RILE is an exception. In sharp contrast, our LR index correlates highly with the other indices. The Italian indices show a similar pattern. Again, our index correlates more highly with the other indices than with the RILE. The other countries where the LR and the RILE correlate below average (Iceland, Ireland, USA and Japan) also feature low correlations with the Vanilla index (except Iceland). These results hint that the major dimension in these countries does not conform to a Left–Right dimension as in the other countries (Sani and Sartori, 1983). This conclusion is also supported by the low importance scores of these countries (together with Luxembourg and Spain).

All in all, the validity test ensures that the LR indeed measures a Left–Right dimension. In most cases where the RILE and the LR disagree, the LR is as good or better than the RILE with respect to the fit with the other indices. As the analysis of the importance of the LR index demonstrates, we are able to analyse in more detail than with the other indices. Due to constraints in space we limit our analysis to only one aspect (for further examples, see Jahn, 2010a).

The example refers to using our indices for *mapping parties in their policy space*, which is important for many spatial analyses (see, for instance, Hinich and Munger, 1997; Tsebelis, 2002; Warwick, 2006). In order to demonstrate this in a two-dimensional policy space, we constructed an environmental scale in the same manner as we did with the Left–Right scale.<sup>20</sup> Our example shows the results of the presidential election in 2000 between Al Gore and George W. Bush and Germany’s Green Party in 2002. The dots present the parties’ ideal positions, while the circles depict the indifference curves which have been calculated from the importance indices.<sup>21</sup>

Figure 2 shows that the German Greens are more ecologically minded and further to the Left than the American parties. The Democrats are clearly Left-leaning and ecological, although they place more importance on the Left–Right dimension than on the Green–Growth dimension. The Republicans are Right of Centre and attach more than double as much importance to the Left–Right dimension as to the Green–Growth dimension. For the German Greens, both dimensions are equally important. This can be seen in how the indifference curve is almost a round circle (Hinich and Munger, 1997: 52–61). Connecting the ideal point to a status quo and calculating the indifference curves by weighting it with the importance of each dimension would improve our analysis of



**Figure 2.** Parties in a two-dimensional space with different saliences

coalition-building and policy making. Certainly, such a calculation can be done over many different dimensions with various values over time and between parties.

Additionally, we can offer an index of party coherence with our Left–Right scale that other indices for party manifesto data cannot (Jahn and Oberst, 2010). Party coherence is also an important aspect of coalition-bargaining and government stability (Giannetti and Benoit, 2009; Warwick, 2006).

### Conclusions

The Left–Right ideological dimension is fundamental to a vast body of empirical and theoretical research in party politics, policymaking and democratic processes. In this article, we have examined the only current data to measure Left–Right positions over a long time span and across a wide range of countries, but discovered some shortcomings with established Left–Right indices, shortcomings that we have tried to overcome with our LR index:

- Left and Right are theoretical concepts and the empirical analysis has to be conducted more deductively than has been done in the past.
- Left and Right are time- and country-specific.
- Different statements have different meanings for a Left–Right scale.
- The Left–Right dimension itself has a different importance over time and countries.
- The CMP data require adequate data treatment.

All these aspects influence the results of measuring a Left–Right dimension. In particular, we need more research if we are to identify what the semantic of politics is when the core Left–Right issues are less predominant than they used to be. Although Left–Right is still relevant in most party systems, in countries such as Iceland, the USA, Spain, Japan and, above all, Ireland, other political dimensions seem to influence politics more strongly than Left and Right. The identification of a ‘superdimension’ might be a first step towards discovering the main ideological semantics of party systems, but to fill this empirical finding with substantial theoretical knowledge is much needed. One way of looking at this is to ask whether the Left–Right dimension really is one-dimensional. Our data suggest that this premise is only valid to a certain degree.

The LR index developed here could only be presented with some very brief examples. However, the data are available for further analysis and special indices exist for government positions, legislative medians and other political institutions in order to conduct analysis in various areas.

## Notes

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1. For a more detailed critical description of the CMP procedures determining the RILE, see Jahn (2010a).
2. The multidimensionality has been explored by Budge et al. (1987), but in later analyses this aspect has been dropped. As an alternative, Keman (2007) suggests a Left–Right index that includes only socio-economic topics (see also Bartolini and Mair [1990] for a similar approach).
3. In order to obtain party positions on this dominant dimension they use regression scoring. The factor scores are converted into an 11-point scale by first transforming them all into positive numbers by adding the absolute value of the minimum factor score to each factor score. The ‘spread’ of factor scores is then defined as the absolute distance between the minimum and maximum factor scores. In a third step they divide the transformed factor scores from step

- 1 by the 'spread' of the factor scores. Finally, the results from step 3 are multiplied by 10, creating a 0–10 scale.
4. The procedure is not totally transparent, because the authors occasionally use different time periods to identify their salience issues. For instance, in the German case they claim that the issue referring to the environment (per501) was a valence issue up to 1983, but with the entering of the Greens into parliament it became a Left issue. So they conduct a regression analysis for both periods. Identifying such breaks is highly complicated and requires a profound knowledge of all party systems. Since the specific treatments of the countries are not well documented, replication is not possible and thus the procedure remains suspect in this respect.
  5. Since Franzmann and Kaiser (2006) do not document – with the exception of the four countries they consider in their publication – which statements constitute the dominant dimension in each country, the meaning of such a dimension is pure speculation. This is a problem shared with the Vanilla method.
  6. See: <http://www.politik.uni-koeln.de/kaiser/partypositions.html>; accessed on 24 October 2008.
  7. 'Advocating public ownership of industries puts one far to the left; desires to have government closely regulated privately owned firms are not quite as far left' (McDonald et al., 2007: 3).
  8. That experts differ in their judgements is, of course, clear to Benoit and Laver. Therefore, they ask experts for their own positions in order to control for expert bias. They also test the meaning of Left and Right by correlating the predefined Left–Right score of the experts with other dimensions that they included in the analysis. However, this specification of Left and Right is dependent on the dimensions included in their analysis and not connected to any Left–Right concept in political theory or philosophy.
  9. We exclusively refer to Bobbio here for three reasons. First, Bobbio summarizes a huge debate on the issue of the Left–Right dimension and gives a balanced and theoretically informed overview. Second, discussing the entire debate on Left and Right in this article would be impossible. Third, if we had deduced the theoretical Left–Right categories ourselves, we would have constructed, as well as tested, our own theoretical concept. In order to ensure construct validity, it is better to rely on concepts which have been developed independently of empirical analysis. Therefore, although it looks superficial to rely on only one theorist, the analysis benefits more from being based on a single author than suffering from a lack of conceptual precision. In addition, Bobbio's conclusions are valid in political thought, as can be seen from Lukes's (2005) summary of the debate on Left and Right.
  10. Freedom is certainly a core concept of liberal ideology. However, the coding instruction of the statement 'Freedom and Human Rights: positive' (per201) is ambiguous, since it includes elements of the concept of individual freedom, which belongs to the Liberal discourse, but it also encompasses human rights, which make it to a great degree also a statement and claim of the Left. The coding instruction shows the ambiguity of this issue which refers to economic and civil freedom: 'Favourable mention of importance of personal freedom and civil right; freedom from bureaucratic control; freedom of speech; freedom from coercion in the political and economic spheres; individualism in the manifesto country and other countries' (Klingemann et al., 2006: 187). This ambiguous phrasing renders the statement unsuitable for our analysis.
  11. Further analysis with different time periods shows that the results are robust. However, in order to anchor the Left–Right scale we had to decide on a cut-off point that made sense analytically. Determining the cut-off point was guided by substantial and methodological aspects.

Substantially, one could also have used 1968 as cut-off point, since the Left–Right discourse was severely altered because of the intervention of the Soviet Union in Czechoslovakia (emergence of Euro-Communism). Another cut-off point could have been 1980, since in the early 1980s a Left Libertarian discourse gained momentum (Kitschelt, 1994). Furthermore, the Liberal discourse was radicalized by the rhetoric of Margaret Thatcher and Ronald Reagan. From a methodological standpoint, the shorter the core time period the better one can identify changes in the meaning of Left and Right over time. On the other hand, a short time period contains too few observations for meaningful data analysis to be possible. A compromise between these two claims had to be found. This is not relevant for analysis of the core statements that we debate here, but this period determines the number of observations (a party at an election) in the following analysis of the extra-statements based on country analysis. Since that analysis is conducted as moving election periods the core period determines the length (or better the number of elections) for further analysis. From this perspective, a period from the 1940s until 1980 seems too long. On the other hand, the country with the lowest number of observations influences the regressions. That is the case for the USA, which has only two observations (Democrats and Republicans) for each election. The elections from 1948 until 1972 lead to an N of 14, which is still very low but acceptable in a bivariate regression. It would be 10 if 1968 was the cut-off point and 16 if 1980.

12. After careful consideration we have decided that it is not appropriate to exclude the USA, Japan or other non-European countries; this is in order to avoid ethnocentrism. We have included Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Japan, Luxembourg, New Zealand, The Netherlands, Norway, Sweden, Switzerland, the United Kingdom and the United States. Results with subsets, however, have always arrived at the same triangle results between Left and Conservative/Liberal.
13. The model needs five iterations. After this the S-stress improvement is less than 0.001. The final matrix stress value is 0.10461. An RSQ of 0.93753 shows that almost 94 percent of the variance in the MDS space is accounted for by the input data. If we force the analysis on one dimension, we need eight iterations and the matrix stress value increases to 0.23081 (RSQ = 0.81814). Generally, a value lower than 0.1 is excellent, while a value between 0.1 and 0.2 is acceptable.
14. The stimulus coordinate scores for each statement are: Nationalization = 2.0566; Controlled Economy = 1.5496; Economic Planning = 1.2677; Market Regulation = 0.3822; National Way of Life = -0.5336; Traditional Morality = -1.0919; Social Harmony = -0.2812; Free Enterprise = -1.0871; Economic Orthodoxy = -0.7909; Limited Welfare State = -1.4714. In order to be able to compare our LR index with the other indices we changed the sign by multiplying the stimulus coordinate scores by -1.
15. We use z-values instead of significance levels, since we do not work with a sample but the universe of policy statements at elections (King, 1986).
16. This ends up at about 1400 regressions (3 regression models × 10 time periods × 46 statements) for each country (in total around 30,000 regressions). There are on average 10 time periods for each country. For the USA, there are for instance nine time periods: 1948–72, 1952–76, 1956–80, 1960–84, 1964–88, 1965–92, 1972–96, 1976–2000 and 1980–2004 (N=14).
17. In some instances we used the second dimension or changed the sign. In order to estimate which sign and dimension has been used we used the core items, especially Nationalization and Limited Welfare State, as orientation. In the case of Japan, it was often difficult to determine which dimension should be used. This is, of course, a clear indicator that the classical

- Left–Right items are not clear demarcation items and that therefore the Left–Right dimension is not very clear in Japan. The Left–Right dimension was sometimes second in Canada, Luxembourg, Belgium and The Netherlands. However, in these cases it was clearly identifiable. All syntax and to-do files with comments are available from my website.
18. The dataset for 23 OECD countries from 1948 until 2005 with party scores for LR, LR\_core, LR\_plus and different importance measures can be downloaded at: <http://pip.uni-greifswald.de/>. Further examples and interpretations of the different Left–Right indices in specific country settings can also be found here.
  19. We use the calculation for all countries and the whole time period, which has provided the best estimates according to Gabel and Huber (2000: 98). At this point we thank John Huber for supplying us with data and the to-do files for calculating the Vanilla index.
  20. The statements for the ‘Green’ side are: anti-growth economy (per416) and environmental protection (per501); for the growth side they are: productivity (per410), technology (per411) and economic goals (per408). The anchor years for the scale reach from 1980 until March 1999, when the first Green Party entered government (Finnish Greens). For more details, see Jahn (2010b).
  21. These are the reversed importance scores. If all statements refer to Left–Right items, there is no indifference curve. In contrast, if there is no reference to Left–Right items the indifference curve spreads across the entire scale. The scores are: Left/Green (Democrats = –16.28/–16.56; Republicans = 11.26/–3.35; Greens –34.70/–24.70), Importance Left/Green (Democrats = 42.90/33.21 percent; Republicans 39.57/16.76; Greens 64.65/65.41). Figure 2 is a proportional approximation of the scores.

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