

# **Anchoring vignettes as a diagnostic tool for cross-national (in)comparability of survey measures: The case of voters' left-right self-placement**

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## **Abstract**

There are potentially multiple sources that make it difficult to compare the typical survey measure of the left-right self-placement cross-nationally. Among others, we focus on differential item functioning (DIF) due to the different use of response scales when the left-right is framed as an aggregate dimension of policies, and we examine whether and to what extent the way ordinary citizens make use of the scale is cross-nationally comparable. Our goal is twofold. First, we assess the cross-national comparability of the left-right self-placement scale using the anchoring vignette method in nine European countries. Second, we propose a measure that quantifies the extent of DIF at the country level. The analyses of our original survey and other benchmark studies suggest that the size of cross-national DIF (CN-DIF) in the citizens' use of left-right scale is relatively small when the left-right concept is considered in policy terms and the comparison is made among Western European countries.

**Keywords:** anchoring vignettes, differential item functioning (DIF), cross-national comparability, left-right self-placement

Political scientists often rely on individual responses to survey questions to empirically capture important theoretical concepts and to make comparisons across individuals from different groups. The ideological left-right (LR) is one of such important concepts. This broad, shared summary of complex political reality emerges, as Benoit and Laver remind us, “because people over the years have found them simple and effective ways to communicate their perceptions of [the] similarity and difference[s]” between political parties, politicians, and voters (Benoit and Laver 2012, 198). Given this, it is natural that researchers frequently make use of it in developing and testing theories of mass political behaviour. The LR metaphor in politics is ubiquitous from the daily conversation of citizens to the debates among political elites across boundaries in the globe, hence the question asking about parties’, politicians’, and voters themselves’ position on the left-right scale has been regularly employed in many cross-national surveys (e.g., CSES, the European Social Survey, the ISSP, Latinobarometro, the World Values Survey, and other national election surveys). As a result, it is not uncommon to find the left-right self-placement scale used for making cross-national comparisons.

Indeed, some scholars have directly compared voters’ left-right self-placement cross-nationally, with an assumption that left-right scales are generally an appropriate instrument for cross-national tests (e.g., Freire 2008; Knutsen 1998; Noelle-Neumann 1998; Medina 2015; Meyer 2017; Dassonneville 2021). For example, in his study on the stability of ideological orientations of electorates in West European countries, Knutsen (1998) used the population mean of left-right self-placements and described that “the mass public in Ireland was the most rightist. [...] followed by Germany, Belgium [...] (p.297).” Similarly, Medina (2015) relied on the country mean of left-right self-placement scores to describe which electorate was further to the right or left among European countries.

Nevertheless, other scholars have addressed concerns about such cross-national comparisons because of the potential of Differential Item Functioning (DIF) to the left-right concept more generally. For instance, some investigated interpersonal differences in how individuals interpret the left and right metaphor more generally (e.g., Bauer et al. 2017; Thorisdottir et al. 2007; Zuell and Scholz 2019); others have focused on developing scaling techniques to make placements of respondents and/or political actors (e.g., political parties) more comparable (e.g., Lo et al. 2014; Weber 2011). Despite these efforts being made, the findings are rather inconclusive with regards to the comparability of the left-right self-placement depending on the sample and the methodological approaches. Moreover, even if we could tell whether the left-right self-placement is cross-nationally (in)comparable, little is known about the extent of such cross-national (in)comparability and how to sample a set of countries that are more comparable.

In this note, we join the above literature by focusing on a specific kind of DIF that may make the left-right self-placement cross-nationally incomparable – the DIF that occurs when respondents in different countries systematically differ in how they map the underlying continuous scale of an attitudinal variable to be self-rated to its ordinal answer categories. Since we are interested in the cross-national (in)comparability (than interpersonal one), we call this problem “cross-national DIF” (CN-DIF) in this paper. In our definition, this type of response category CN-DIF occurs when, for example, citizens in Spain on average assess a health condition of a woman in her 50s “feeling chest pain and getting breathless after walking 200 meters” as 6 on an eleven-point healthiness scale, while citizens in France assess the same health condition as 3 on the same scale. Of course, there could be differences in the use of the scale among individuals; however, our interest is the incomparability problem when the response category is interpreted systematically differently across populations in different countries.

Using anchoring vignettes as a diagnostic tool, we 1) quantify the degree of CN-DIF of a given concept (and the scale that measures it) and 2) identify problematic cases (i.e., countries that are relatively incomparable to others) in which respondents use the scale differently from respondents in other countries. We then apply our measure of CN-DIF –  $R_{\text{CN-DIF}}$  – to our original surveys in nine European countries as well as to several benchmark studies in political science that utilized anchoring vignettes to assess cross-national comparability of other important concepts – namely, democracy, political interest, political efficacy, and experts’ assessment of left-right positions of parties.

With our proposed measure and the original survey in which we ask respondents to place several hypothetical parties on the traditional eleven-point left-right scale, we find that the left-right scale suffers relatively little from the kind of CN-DIF we investigate here (i.e., the cross-national difference in the use of the response scale) insofar as the concept is considered in policy terms and the comparison is made among Western European countries. Moreover, our results are in line with previous findings in identifying heterogeneous entities that scholars should be wary of when making comparisons across groups or when determining their grouping strategies. Overall, our work makes a methodological contribution to the broad literature on comparative political behaviour by offering a useful diagnostic tool for survey practitioners, particularly those who are interested in making cross-national comparisons, to empirically capture the extent to which a given theoretical concept suffers from CN-DIF and to identify problematic cases causing greater incomparability within a given sample of countries.

### **Assessing cross-national DIF using anchoring vignettes**

Differential item functioning (DIF) refers to the problem in which individuals in different groups (in our case, country) provide systematically different answers to survey questions because of artefactual elements in the measurement process. Despite the common wording used

for the left-right self-placements in many surveys, respondents may interpret the question and scale in ways that undermine the cross-national comparability of the resulting measures. In general, there are three major sources of such cross-national incomparability in the use of the left-right scale.

First, while many people may think the left-right as an aggregate dimension of various policy domains, other factors such as individual partisanship, long-term values, and social position also play a prominent role in predicting left-right self-placements (e.g., Freire 2006; Inglehart and Klingemann 1976; Medina 2015; Dassonneville 2021). If the importance of these sources differs across countries, cross-national comparability will suffer. Second, even when they think of the left-right in policy terms, respondents in different countries aggregate different kinds of policies into their left-right position.<sup>1</sup> Third, even if respondents think of the concept of left-right in a similar fashion (e.g., the same set of policy areas), respondents in different countries may systematically differ in how they map the underlying scale of the concept to be self-rated to its ordinal answer categories.

We examine this very last potential source of cross-national incomparability – the CN-DIF that result from respondents in some countries systematically using the typical response scales differently from respondents in other countries. For instance, when the underlying extent of “left-ness” that causes someone in one country to label herself a “4” may be the same level that causes a respondent in a different country to label herself “2.” At the same time, we focus the content of the vignettes on the policy contents. Specifically, we use vignettes to explore the extent of CN-DIF resulting from the differential interpretation of answer categories by priming respondents to think of the left-right question explicitly in policy terms and with respect to a

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<sup>1</sup> Indeed, several studies have asked if voters in different countries use the left-right as a summary of the same underlying policies (e.g., de Vries et al. 2013; Huber 1989; Knutsen 1997; Thorisdottir et al. 2007). On balance, these studies conclude that, at least in the Western democracies, the content of the left-right is quite similar.

specific set of policies. If voters across European countries define the concept of left-right using a similar set of policies, the remaining source of cross-country incomparability of the left-right concept will then primarily come from differential interpretation of the answer categories.

Anchoring vignettes is a useful tool to identify and ameliorate DIF caused by differing interpretations of the “cut-points” defining answer categories (King et al. 2004). It does so by utilizing respondents’ assessments of one or more vignettes, which are then used to both assess the extent to which (groups of) individuals use the scale differently (identification) and to re-scale their self-assessments relative to where they place the corresponding vignettes (correction).<sup>2</sup> In this note, we use the anchoring vignette technique primarily for diagnostic purpose than corrective—to assess the extent to which these data can be used to make reliable comparisons of left-right self-placements across countries. Such diagnostic effort is very much in keeping with the scholarly agenda articulated in King et al. (2004), which clearly anticipated (and implicitly encouraged) this kind of diagnostic use by stating that “[...] researchers who are confident that their survey questions are already clearly conceptualized, are well measured, and have no DIF now have the first real opportunity to verify empirically these normally implicit but highly consequential assumptions (p.205).” In our diagnostic use of anchoring vignette, our primary concern is the DIF that is systematically related to the respondent’s nationality rather than more general forms of DIF among individuals.

### **Constructing vignettes for the placement of parties on left-right dimension**

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<sup>2</sup> Many researchers, such as in studies of subjective health have employed anchoring vignettes to improve the comparability of self-assessed responses across individuals or across countries (e.g., Salomon et al. 2004; Grol-Prokopczyk et al. 2011; Rice 2012). Likewise, political scientists have offered cross-nationally comparable estimates of party positions by combining anchoring vignettes and scaling techniques (e.g., Bakker et al. 2022; Struthers et al. 2020).

Our first task is to construct a set of vignettes that describe different left-right ideological positions. The vignettes must be designed in a way that promotes respondents to perceive the scale as unidimensional – in our case, a unidimensional aggregate of a specific set of policy dimensions.<sup>3</sup> To achieve this, we focus on four specific sub-dimensions that largely constitute the left-right concept, particularly in Western democracies: *regulation of the economy, support for redistribution, the size and scope of government, and attitudes toward cultural diversity*. These policy areas are known to be linked with the left-right dimension at both the elite and individual levels across Western European countries (e.g., Van der Brug and Van Spanje 2009; Benoit and Laver 2012; Wojcik et al. 2021).<sup>4</sup> We then vary the level of each sub-dimension monotonically such that the levels of each of these dimensions move in the same direction from the leftist vignette to the rightist vignette. In other words, the leftist vignette describes the most lefty positions on all four policy issues; the rightist vignette describes the rightest positions on all policy areas; and the centrist vignettes describe positions in-between these. By explicitly providing these vignettes *before* asking respondents to place themselves on the same scale, we prime the respondent to think about the left-right concept as an aggregator of these dimensions (Hopkins and King

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<sup>3</sup> The vignettes should be constructed to describe “unidimensional” space of left-right ideology simple because the target measure, which we are interested in with regards to the cross-national comparability, is the unidimensional left-right scale ranging from left to right. One may relate this unidimensionality to the discussions on the (issue) dimensionality in political competition in European countries; however, we want to highlight that discussion is only remotely relevant to this part of the vignettes design. Technically speaking, in anchoring vignettes approach, even for inherently multi-dimensional concepts, the unidimensionality assumption can still be met by writing the vignettes appropriately: “For an inherently multi-dimensional concept [...] we need to invoke the same, important sub-dimensions of interest in each vignette and make sure the levels of each of these aspects move monotonically and in the same direction from the low-interest vignette to the high-interest vignette (Lee et al. 2015, 211).”

<sup>4</sup> Admittedly, the saliency of these issues (or sub-dimension) may differ across countries. Yet, we have no reason to believe that issue saliency changes the way respondents use the left-right scale (i.e., the specific type of DIF we examine here) differently. In other words, whether issue saliency contributes to CN-DIF is beyond the scope of our work, and we leave it to future research.

2010). Doing so allows us to concentrate our analysis on the kind of DIF that results from differential interpretation of ordinal answer categories rather than alternative interpretations of the whole concept.

We construct the vignettes to describe hypothetical parties (rather than hypothetical individuals) for several reasons. First, as Bauer et al. (2017) empirically demonstrate, citizens often associate political parties with the concepts of left and right. Indeed, political parties play a critical role in making up of citizens' left-right orientation (Inglehart and Klingemann 1976). Doing so also mimics the way typical surveys that ask respondents' self-placement on the left-right scale are designed: many cross-national and national election surveys ask respondents' self-placement along with their perceived position of other political actors such as political parties, governments, and prominent political figures. Therefore, similar to the vignettes used in Bakker et al. (2014), we create several hypothetical parties as our vignettes to gauge the way citizens use the left-right scale. Implicit in this process is to have respondents make comparisons between the parties described in the vignettes and the respondents themselves, which is exactly the key process expected in the "anchoring vignettes" approach.



Figure 1. The vignette assessment question

Below we present three hypothetical political parties with different policy goals on social-economic issues. Using a scale from 1 to 11, where 1 means left and 11 right, please tell us where would you place the three political parties?

**Party A** believes in active government regulation of the economy to ensure fairness, health and safety, and to prevent market failures. It always supports redistributive social policies that tax higher income people to fund social programs. It also believes that government should play a key role in addressing most social and economic problems, and that greater cultural diversity is good for the country.

Left 1 2 3 4 5 6 7 8 9 10 11 Right

**Party B** believes in government regulation of the economy to ensure health and safety. It sometimes supports redistributive social policies that tax higher income people to fund social programs. It also believes that government should play some role in addressing some social and economic problems but that others should be left to markets and civil society, and it believes that greater cultural diversity has both good and bad impacts on the country.

Left 1 2 3 4 5 6 7 8 9 10 11 Right

**Party C** believes in minimal government regulation of the economy, only to ensure health and safety. It opposes almost all redistributive social policies that tax higher income people to fund social programs. It also believes that government should play a minimum role in addressing social and economic problems, which should be left to markets and civil society, and it believes that greater cultural diversity is bad for the country.

Left 1 2 3 4 5 6 7 8 9 10 11 Right

Figure 1 presents the instruction and vignettes used in our survey. The vignettes can be arranged on an ordered, unidimensional scale, ranging from the left-wing party (Party A) to the centre (or centre-right) party (Party B), and the right-wing party (Party C). We randomized the order of the vignettes, and asked respondents to evaluate the left-right position of the three hypothetical parties, followed by rating respondents themselves using an eleven-point scale. Our original cross-national survey was fielded in early 2020 in nine European countries, using internet panels of respondi AG (roughly 2,000 responses per country): France, Germany, Hungary, Italy, the

Netherlands, Poland, Spain, Sweden, and the United Kingdom.<sup>5</sup> Given that the broader literature suggests the discrepancies in the meaning of the left-right between Western and Eastern European countries (e.g., Tavits and Letki 2009; Wojcik et al. 2021), the two Eastern European countries – Poland and Hungary – are included to litmus test the performance of our CN-DIF measure, in the expectation that these countries are relatively incomparable to other Western (and Southern) European countries in our sample.

We performed a series of tests that have been typically carried out in prior research using anchoring vignettes (e.g., King et al. 2004; Bratton 2010; Lee et al. 2015). We provide the results and relevant discussions in Online Appendix B, while summarizing them as follows. First, we evaluated the extent to which respondents perceive the scale of interest as unidimensional, i.e., vignettes equivalence test by looking at how many respondents place the vignettes on the same scale in the order we expected. Second, we investigated whether there are systematic differences in vignette placements because even when respondents place vignettes in the same order, people in some countries may systematically shift all vignettes to the left or right of the scale or use only part of the scale. Finally, we compared respondents' self-placements before and after any DIF is corrected (in the ways described in King et al. 2004). This last test includes parametric and non-parametric approach to correcting DIF, and comparing country rankings before and after correction. The presence of severe CN-DIF would lead to dramatic differences between the raw self-placements and the corrected measures. While these tests help understanding the extent of CN-DIF in the standard measure of the left-right self-placement, the answer is not completely straightforward.<sup>6</sup>

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<sup>5</sup> See Online Appendix A for more details about the survey.

<sup>6</sup> For example, to what extent do we accept the ranking changes? Should we be only assured when the rankings remain exactly the same, or do we accept small changes in rankings? There has been no clear standard for such assessments if not arbitrary.

We thus reanalysed several benchmark studies to compare the results. We chose the benchmark studies because they have examined DIF in survey measures of other important concepts in political science – namely, King et al.’s (2004) study on political efficacy, Bratton’s (2010) research on the assessment of democracy, Bakker et al.’s (2014) work on experts’ left-right placement of political parties, and Lee et al.’s (2015; 2016) study on political interest. All results from the above-mentioned tests, along with re-analyses of benchmark studies, are reported in Online Appendix B. To summarize, our diagnosis tests suggest that in general, the left-right scale suffers relatively little from CN-DIF and clearly less problematic than the case of political efficacy in King et al. (2004).

However, these diagnoses may not be sufficient to answer whether the extents of CN-DIF we reveal in these analyses are low enough to assure researchers that the left-right self-placement is truly cross-nationally comparable. We understand that the answers for this question may only be suggestive and in relative terms than definite ones. But we could at least obtain better insights and have better standards for such evaluation. In the following section we propose a measure indicating the extent of CN-DIF and compare our results with other benchmark studies beyond an obvious high CN-DIF case of political efficacy.

### **Assessing the extent of systematic cross-national variation in vignette placement**

#### ***Measuring CN-DIF***

To approximate CN-DIF, we take a “parsing variance” approach. A typical example of this approach is the estimation of intraclass correlation coefficient (ICC), which measures the ratio of between-group variance to the total variance. Greater values of ICC indicate that a large portion of the total variance is attributable to between-group differences. In our case, theoretically, the total variance of vignette placements for a sample of individuals grouped by

country and vignette can be decomposed into variance between vignettes (on average), the average variance between countries (within vignettes), and the remaining variance across individuals within countries and vignettes. When CN-DIF exists, a large portion of the total variance is expected to come from the variation across countries. We can formally compute these quantities to get a sense of the levels of CN-DIF. A simple way to compute these quantities is to estimate a multi-level model for vignette placements in which

$$(1) \quad y_{kji} = \alpha + u_k + u_j + u_{jk} + e_{jki},$$

where  $y_{kji}$  denotes the placement of vignette  $j$  in country  $k$  by respondent  $i$ ,  $\alpha$  the constant,  $u_k$  the random intercepts for  $k = 1 \dots K$  countries,  $u_j$  random intercepts for each of  $j = 1 \dots J$  vignettes,  $u_{jk}$  the random intercepts for  $J \times K$  vignettes in countries, and  $e_{jki}$  the residual that captures the random effect on placements attributable to unmeasured factors idiosyncratic to the individual-country-vignette.

If we assume that each of the random effect terms are distributed independently normal with zero means, each will contribute a variance term to the likelihood function and estimates of these variance terms can be used to produce direct measures of the proportion of variance attributable to vignettes vs. countries (as well as estimates in the uncertainty around this proportion). We take the proportion of the variance attributable to country (as against to total that is defined by variances attributable to country, vignettes, and country-vignettes) as a measure of CN-DIF. The ratio is calculated with:

$$(2) \quad R_{\text{CN-DIF}} = (\sigma_k^2 + \sigma_{jk}^2) / (\sigma_j^2 + \sigma_k^2 + \sigma_{jk}^2).^7$$

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<sup>7</sup> This is a form of the intraclass correlation coefficient (Fisher 1954; Koch 1982).

As it is a measure of proportion, the  $R_{\text{CN-DIF}}$  ranges from 0 to 1. If the proportion of variance attributable to country is near zero, this indicates that little of the variation in the vignette placements can be attributed to unmeasured factors relevant to respondents' nationalities. In contrast, if the proportion is near 1, it suggests that the variation in vignette placements is much more closely related to respondents' nationalities than differences in vignettes. We estimate the necessary quantities by using the individual-level data.<sup>8</sup> Table 1 presents the estimates for  $R_{\text{CN-DIF}}$ , the proportion of the variance attributable to between-country differences, for each of the benchmark studies as well as our own data.

Table 1. CN-DIF: the proportion of the variance attributable to country

	$R_{\text{CN-DIF}}$	Levels of DIF original study concluded
Political efficacy (King et al. 2004)	.903	High
Democracy (Bratton 2010)	.054	Low to Medium
Experts' LR Placement (Bakker et al. 2014)	.011	Low
Political interest (Lee et al. 2015)	.069	Low
Political interest (Lee et al. 2016)	.033	Low
LR Placement	.112	--

Our results for the benchmark studies are largely consistent with what the authors concluded in their works (in the third column). For instance, the proportion of variance attributable to country relative to vignette is around 0.9 in King et al.'s study of political efficacy, much greater than what we observe in other studies, and this is in line with King et al.'s conclusion that political efficacy is not comparable across countries, at least between China and Mexico. Meanwhile, the lower levels of variance associated with country for the works on democracy, experts' left-right placement of parties, and political interest show that the concepts studied in

<sup>8</sup> Online Appendix C details how we compute these quantities and a discussion on the use of individual-level vs. country-level data to estimate CN-DIF. Using country-level data (obtained by collapsing individual-level data) essentially yields the same substantive conclusion. See Figure C1 as a robustness check of what we present in Figure 2.

these works do not suffer serious CN-DIF. This is consistent with what the authors of these studies initially concluded. For instance, Bratton (2010) claims that “[the study’s] result provides a preliminary rebuttal against the cynical claim that the original “D-word” formulation is completely incomparable (p. 112).”

When it comes to our own study on the left-right scale,  $R_{\text{CN-DIF}}$  is 0.112, with which our left-right policy measure clearly looks much more like the concepts without significant CN-DIF (e.g., political interests and democracy) than the opposite (e.g., political efficacy). Moreover, while we have a similar study examining whether left-right placements among experts are comparable across countries (Bakker et al. 2014), the results we show here suggest that average voters perform only slightly worse than experts. We take the results as a piece of evidence against the idea that CN-DIF might be a serious problem for the comparison of the left-right self-placements across countries. Nevertheless, as an aggregate measure (i.e., at the level of a concept),  $R_{\text{CN-DIF}}$  is largely determined by what countries included in a study. In the next section, we measure the country-specific  $R_{\text{CN-DIF}}$  to help researchers identify the countries that might be less comparable to others.

### *Identifying problematic cases that behave differently from others*

The particular problem of CN-DIF dealt with in this study stems from the possibility that respondents in different countries systematically use a response scale differently. If this is the case, we expect to see a greater  $R_{\text{CN-DIF}}$  when grouping countries that are very different from each other to study a concept than the score we would obtain if we study the same concept based on a group of homogeneous countries. In other words, by grouping countries differently,  $R_{\text{CN-DIF}}$  further allows us to compute a country-specific score that indicates whether a country is a proper case to be included when comparing a concept of interest across countries. This score

could be a useful guidance to researchers about the dangers of making comparisons with specific countries.

To calculate a country-specific measure of CN-DIF for each country in each study, we estimate the same random-effect model (as shown in Table 1) for each *pair* of countries included in a dataset. We then average the scores from all country-pairs that include a given country. The resulting score for a specific country is thus the average effect of nationality – more precisely, the average variance in vignette placements explained by country (than by vignettes) – from all possible pairs of countries that contain a given country. When the country deviates substantially from others regarding the way respondents place vignettes, we expect to see greater scores. We compute the country-specific CN-DIF scores and 95% confidence intervals by bootstrapping the individual-level data and repeating the estimation process 1000 times. The results for our study of left-right placement, as well as those for Bratton (2010), Bakker et al. (2014), and Lee et al. (2016) are illustrated in Figure 2.<sup>9</sup>

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<sup>9</sup> We exclude King et al. (2004) and Lee et al. (2015) as they include only a few countries.

Figure 2. Country-specific CN-DIF scores in four studies

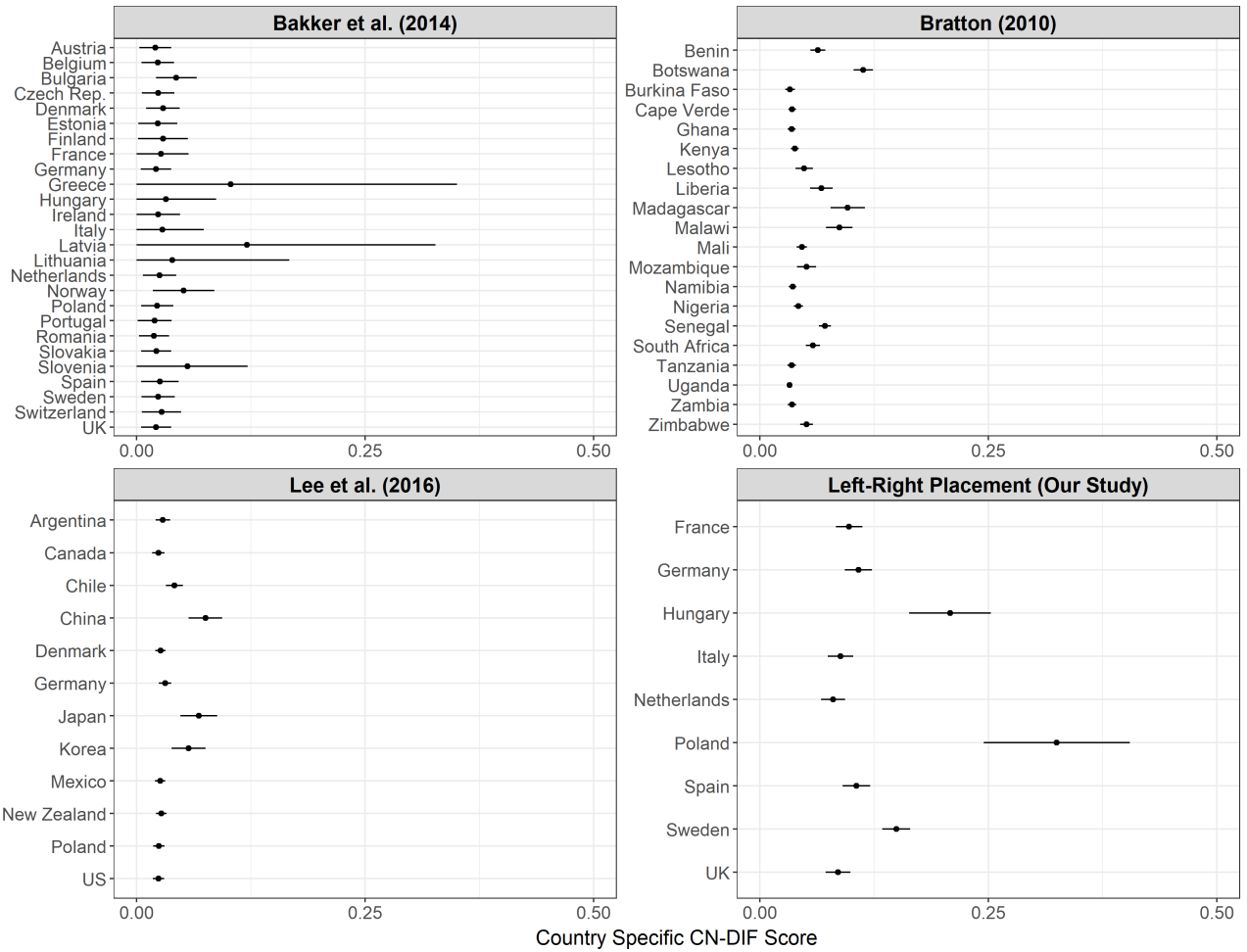


Figure 2 provides some guidance on which countries should be included and which rather not. For instance, the results from Bratton’s data (upper-right panel) suggest that when studying the perception of democracy or similar concepts cross-nationally in Africa, researchers may want to exclude countries like Botswana, Madagascar, and Malawi to ensure the inference or conclusion does not suffer from biases due to potential CN-DIF. When comparing political interest cross-nationally (Lee et al. 2016, bottom-left panel), researchers may want to avoid comparing the raw, reported level of political interest from Asian countries, such as China, Japan, and Korea, with that from North American and European countries. These problematic cases identified here largely overlap with the ones the benchmark studies pointed out as countries needed special attention. For instance, Bratton (2010) calls out Botswana and Malawi



as countries “whose [corrected] ranks change radically” (p.112). Lee et al. (2016) also specify that China, Korea, and Japan are the countries with “relatively high scores for the low interest case,” although they contend that there is not enough CN-DIF to substantially undermine their general conclusions.

When it comes to left-right party placements made by political experts, our results indicate that there is little CN-DIF (in the sense that there is no country whose score is significantly different from other countries), while the extremely wide confidence intervals for Greece, Latvia, Lithuania, and Slovenia warrant a further attention to the cases.<sup>10</sup> Two of these countries – Greece and Latvia – are described as being less comparable in Bakker et al.’s original work (p.5), based on their pair-wise comparison of the mean placements (of vignettes).

Finally, the results about citizens’ left-right self-placements suggest that we should be wary of comparing Eastern and Western European countries on the left-right policy ideology. In our data, respondents in Hungary and Poland seem to use the scale of left-right position very differently from their Western European counterparts. These findings could be explained by a few empirical features that leftist parties in post-communist countries tend to be economically conservative with rightist parties being more socially liberal (e.g., Kitschelt 1992; Vachudova 2008; Tavits and Letki 2009) and that the rise of populist parties on the right in recent years has taken over the traditional voting base of leftist parties in Poland and Hungary (Berman and Snegovaya 2019).<sup>11</sup> Although it is not a new insight at all that there are political and cultural differences between Western and Eastern European countries, our CN-DIF measure illustrates

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<sup>10</sup> See more discussions about this result in Online Appendix D.

<sup>11</sup> An alternative interpretation for the distinctiveness of Poland and Hungary may be that the ideological range of possible party positions is perceived to be greater in these countries than others. However, our investigation on the ideological range of respondents’ placement of actual parties suggests this is not the case.

them effectively by offering a quantified description of the extent to which each of the countries in the sample is comparable to others.

## **Conclusion and discussion**

A general message from this study is that when voters are primed to think of the left-right in terms of the usual policy debates that have animated conflict in western societies, they give a similar meaning to the ordinal categories on which they are asked to record their responses. That is, a person in Spain seems to think of the meaning of a “2” on this left-right policy scale similarly to a person in Germany. While this is a narrow conclusion, it is directly useful for researchers whose interest is not in a general notion of the left-right but that specific measure of the policy content. Our study suggests that priming respondents in some way to interpret the left-right question as asking about specific policy content may be an effective strategy for creating cross-national comparability of the resulting measures (at least for western democracies). This, at the same time, may provide empirical grounds for some previous works that made use of direct comparison of voters’ left-right self-placements cross-nationally (e.g., Knutsen 1998; Median 2015; Dassonneville 2021). Beyond this narrow conclusion, this study should also count against blanket critiques of left-right self-placement scales that assume voters must use these scales very differently across countries.

In addition to our general finding, this work contributes to the study of comparative political behavior by providing quantitative tools to diagnose the extent of CN-DIF. Specifically,  $R_{\text{CN-DIF}}$ , the measure of CN-DIF we proposed here, can help future research detect the extent of cross-national comparability for a given concept within a sample of countries. Our country-specific metric further indicates the extent to which a specific country ascribes to the incomparability of the concept within a sample of countries. As we have showcased, the cross-national comparability of citizens’ left-right self-placement may suffer when one attempts to compare

Western European countries to Eastern European ones. While the primary goal of previous works was to reveal the presence of cross-national incomparability of left-right placements (e.g., Bauer et al. 2017; Lo et al. 2014; Zuell and Scholz 2019), our goal was quantifying the degree of cross-national incomparability and red-flagging potentially problematic cases with our CN-DIF measure. Finally, our application of  $R_{\text{CN-DIF}}$  to benchmark studies found that the way we quantify the degree of CN-DIF leads to similar conclusions to those in the original articles based on different analytic approaches. We believe this validates the performance of the proposed CN-DIF measure.

**Data Availability Statement.**

Replication data for this article can be found in Harvard Dataverse at <https://doi.org/10.7910/DVN/LC4QVF>.

**Supplementary Material.**

Online appendices are available at <https://doi.org/XXXXXXXXXXXXXXXXXXXXXXXXXXXX>

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**Conflicts of Interest.**

The authors declare no conflicts of interest in this research.

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