

# The Unequal Representation of Social Groups in Democracies

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## Abstract

How well are different social groups represented by political elites in democracies? We propose a new measure of group-specific ideological representation, which we term the ‘relative opinion presence’ of a social group, with several attractive properties. We employ this measure to compare the extent of unequal representation on three separate cleavages: gender, urban-rural location, and education. We find that, first, there are significant inequalities in ideological representation across all three cleavages we consider, but the largest inequalities occur based on education. Second, we find that the opinions of marginalized citizens are consistently and substantially better represented by in-group candidates. Third, we find that these inequalities are smaller under proportional representation. Our findings suggest that improvements in descriptive representation are likely to have a significant impact on the quality of substantive representation as well.

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# 1 Introduction

In the eyes of scholars and citizens alike, the quality of electoral representation in a democratic polity is central to its performance and its legitimacy. What effective representation should look like in a well-functioning democracy is still debated, and scholars have consequently evaluated its quality using a range of outcomes, including policy responsiveness (Soroka and Wlezien, 2010; Gilens, 2012; Elsässer, Hense and Schäfer, 2021), pledge fulfillment (Stokes, 2001; Matthieß, 2020) or retrospective voting (Powell and Whitten, 1993; Hobolt, Tilley and Banducci, 2013; Healy and Malhotra, 2009). Failures of representation on these and related criteria do not only compromise the attainment of political equality in these systems, but have also been linked to declining democratic satisfaction (Mayne and Hakhverdian, 2017; Arnesen and Peters, 2018), as well as the rise of extreme-right and populist parties in several consolidated democracies (Halikiopoulou and Vasilopoulou, 2018; Castanho Silva and Wratil, 2023). As such, evaluating the quality of representation in democracies and exploring its determinants remains an important enterprise.

In this study, building on a long and established research tradition, we return to the question of how different democracies perform in terms of producing ideological congruence between citizens and political elites (Huber and Powell, 1994; McDonald, Mendes and Budge, 2004; Blais and Bodet, 2006; Golder and Stramski, 2010; Powell, 2019).<sup>1</sup> Within this extensive literature, the extent to which ideological congruence generally prevails, as well as when it is more likely to prevail, remains debated (McDonald and Budge, 2005; Golder and Lloyd, 2014; Warwick, 2016; Powell, 2019). At the same time, this literature has repeatedly documented the existence of persistent and substantial inequalities in ideological congruence, with the policy preferences of less affluent and less educated citizens – and to a lesser extent, those of women – receiving disproportionately

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<sup>1</sup>This is distinct from a concern with *policy responsiveness*, which is a dynamic process (Soroka and Wlezien, 2010; Gilens, 2012; Elsässer, Hense and Schäfer, 2021). By contrast, ideological congruence refers to the similarity between the policy preferences of citizens, on the one hand, and elite preferences or actions, on the other hand – a static conception and measure of representation.

little representation from political elites. This tendency was first observed in the United States (Bartels, 2008; Gilens, 2012), but a growing body of work has also identified similar patterns in numerous other European and Latin American democracies (Giger, Rosset and Bernauer, 2012; Bernauer, Giger and Rosset, 2015; Schakel and Hakhverdian, 2018; Rosset and Stecker, 2019; Elsässer, Hense and Schäfer, 2021; Lupu and Warner, 2022; Persson and Sundell, 2023).

We advance this literature on several fronts. First, we suggest a new measure of group-specific ideological congruence that is both straightforward to calculate and easy to interpret: the ‘relative opinion presence’ of different social groups. This measure captures the extent to which the opinions of a particular social group are over- or under-represented among members of the political elite relative to the size of that group within the electorate. We operationalize this measure using data on citizen preferences drawn from the Comparative Study of Electoral Systems (CSES) database, and data on the preferences of electoral candidates drawn from the Comparative Candidates Survey (CCS). Our final dataset contains 37 country-years, spread across 4 continents, 18 countries and a decade<sup>2</sup> – a broader geographical focus than in much of this literature.<sup>3</sup>

Next, rather than focusing on a single cleavage, we employ this measure to characterize and to compare the extent to which citizens are unequally represented on three separate cleavages: gender, urban-rural location, and education.<sup>4</sup> As such, this represents an additional contribution of our paper. Most of the literature on this topic has focused on unequal representation based on aspects of social class (wealth, income, education),

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<sup>2</sup>In future drafts, by incorporating more of the surveys identified by Lupu and Warner (2022), we plan to extend the coverage of our dataset to include a far larger number of country-years, including many in Latin America and some in Asia.

<sup>3</sup>Most studies focus on single countries, or on European democracies. The comprehensive analysis of patterns in ideological congruence across the globe conducted by Lupu and Warner (2022) represents a notable and important exception. However, they only consider inequalities based on social class (or affluence), whereas we study inequalities based on multiple cleavages.

<sup>4</sup>In future drafts, we also plan to consider inequalities based on additional cleavages, such as age, occupational background, and ethnicity, as well as inequalities at the intersections of these various cleavages.

and very few have considered the extent of unequal representation based on multiple cleavages.<sup>5</sup> To our knowledge, no study has previously attempted to compare the extent of unequal representation based on more than two cleavages, as we do here.

We find evidence of large and statistically significant inequalities in ideological congruence across all three cleavages we consider – with the opinions of women, rural voters and low education voters all significantly under-represented by electoral candidates. However, we find that low education voters receive especially poor representation, as compared with rural and female voters. In particular, the opinions of low education voters receive about 5% less representation among candidates than their numbers would warrant, while those of high education voters receive 14% *more* representation than they might deserve. The representational disparities we uncover between men and women, and between rural and urban voters, are considerably smaller. This reaffirms the conclusion that low education voters constitute an important marginalized group in contemporary democracies (Hakhverdian, 2015; Schakel and Hakhverdian, 2018; Rosset and Stecker, 2019).

Our study makes two additional contributions. First, and most importantly, we employ our measure of ‘relative opinion presence’ to directly evaluate the extent to which women and low education voters are better represented by candidates who share these demographic characteristics, and potentially their group identities as well. This speaks to a longstanding debate on the link between descriptive and substantive representation. Since at least Pitkin (1967), political theorists have expressed concerns that improved descriptive representation may not improve the representation of citizens’ policy preferences or their substantive interests. On the contrary, insofar as descriptive representatives face reduced electoral accountability, it may even weaken those representatives’ incentives to articulate or implement their constituents’ preferences and interests (Mansbridge, 1999, 640).

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<sup>5</sup>For instance, Schakel and Hakhverdian (2018) and Rosset and Stecker (2019) take into account both income and education, while Bernauer, Giger and Rosset (2015) consider gender and income.

At the same time, a large literature has found that improvements in the descriptive representation of marginalized groups has implications for political decision-making – and in a direction consistent with what we either believe, or observe, the majority of that group to prefer (Kittilson, 2008; Volden, Wiseman and Wittmar, 2018; Carnes and Lupu, 2015; O’Grady, 2019; Alexiadou, 2022). For instance, Kittilson (2008) finds that increasing women’s parliamentary presence is associated with the increased adoption and scope of maternity and childcare leave policies. Meanwhile, Alexiadou (2022) finds that the class background of cabinet ministers has an impact on the generosity of social welfare policies that they support. However, these and most other studies base their analysis on the policies they either assume or observe the majority of these groups to prefer. This requires us to assume uniform preferences or interests among members of marginalized groups, something which many researchers have previously criticized (Phillips, 1995; Kroeber, 2018a). The difficulties are immediately apparent when we recall, for instance, that many women oppose feminist policies such as liberal abortion rights or extensive childcare policies (Celis and Childs, 2012). Our approach surmounts this difficulty by (in effect) considering the entire distribution of group members’ preferences, and comparing this to the entire distribution of in-group candidate preferences.<sup>6</sup>

We find that – even after the heterogeneous preferences of these groups are accounted for – both women and low education voters are substantially better represented by in-group candidates than they are by the typical electoral candidate. That is, female candidates are about 2.5 times as likely to represent the views of the typical female voter as they are the typical voter, and low education candidates twice as likely to represent the views of low education voters relative to those of the typical voter. These findings

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<sup>6</sup>We are aware of only one study that implements a similar approach to study the representation of Dutch voters by representatives from a similar educational background (Hakhverdian, 2015). Our study expands on this focus both geographically and in terms of the cleavages considered. Two other studies, by Kroeber (2018b) and Dingler, Kroeber and Fortin-Rittberger (2019), also consider the impact of descriptive representation on distributional (many-to-many) congruence, but only compare the policy preferences of immigrant-origin and female voters, respectively, with those of *all* MPs.

suggest that improved descriptive representation is likely to have a significant impact on the quality of substantive representation as well.

We also use our approach to revisit the ‘ideological congruence controversy’ (Huber and Powell, 1994; Powell, 2009; Golder and Stramski, 2010) – or the debate on the effect of electoral rules on ideological congruence between citizens and representatives. While early work on this topic argued that proportional representation (PR) was more likely to produce a close ideological correspondence between citizens and their elected government (Huber and Powell, 1994; Powell, 2000, 2009), more recent work has found that PR has no such advantage (Blais and Bodet, 2006; Golder and Stramski, 2010; Golder and Lloyd, 2014). We find that, if the representation of minority opinions by electoral candidates is considered instead, PR still retains some advantage over majoritarian systems. In particular, minority opinions receive about 5% less representation by candidates in majoritarian systems than they do under PR. However, as our focus is earlier in the ‘chain of delegation’ (Mueller, 2000) than these aforementioned studies, our results are consistent with the finding that PR systems produce ‘better and more consistent representation in the legislature’ (Golder and Lloyd, 2014, 201) – even if (due to the process by which governing coalitions are formed) this does not translate into improved ideological representation by governments.

As well as providing further evidence for the importance of descriptive representation in contemporary democracies, our findings also have implications for the degree of political inequality and the distribution of political power in contemporary democracies. Our focus on ideological congruence is motivated by the conviction that, in democracies, the preferences and actions of political elites should not be “persistently at odds with the wishes of the represented” (Pitkin 1967, 210; see also Dahl 1971). Of course, congruence in the stated preferences of citizens and elites does not in itself guarantee that citizen interests will be actively represented by political elites – for instance, due to constraints

imposed on legislators by party discipline. However, research suggests that, even subject to such constraints, elected representatives frequently act on their stated preferences – for instance, when determining which bills to sponsor (Carnes and Lupu, 2015), or choosing how to speak in parliamentary debates (O’Grady, 2019). Moreover, insofar as we value equal *voice*, the mere articulation of citizen preferences by members of the political elite, even if these preferences are not shortly enacted, has implications for the communicative power and representation of those citizens – a valuable goal in itself (Basu, 2023).

The rest of the paper is organized as follows. Section 2 introduces our measure of group-specific ideological congruence – the relative opinion presence of different social groups – and describes the data that we use to operationalize this measure. Section 3 presents and discusses the results from our initial analyses. Section 4 concludes.

## 2 Data and Methodology

### 2.1 Measuring Relative Opinion Presence

In this paper, we aim to assess the extent to which the opinions of different social groups divided by a particular cleavage receive unequal representation from political elites – and in particular, from electoral candidates. To this end, we propose a new measure of group-specific ideological congruence: the ‘relative opinion presence’ of a social group. Our measure captures the extent to which the opinions of a typical member of a social group are over- or under-represented by candidates relative to the opinions of a typical voter in the electorate. Then, this provides an indication of how over- or under-represented members of a social group are relative to their prevalence in the electorate as a whole.

Consider a society  $G$  constituted by several social groups  $j$ , where each group  $j$  has  $N_j$  members. Each member of the social group  $j$  has an opinion  $i \in \{1 \dots n\}$ , and the number of members of group  $j$  with the opinion  $i$  is given by  $N_{i,j}$ . The electorate is made

up of all members of all groups  $j \in G$  with all opinions  $i$ , containing  $N = \sum_j \sum_i N_{i,j}$  individuals. The number of individuals with opinion  $i$  is then given by  $N_i$ .

Further, suppose there are  $K$  candidates who potentially represent members of this society, with each candidate  $k$  representing an opinion  $i$ . Let  $K_i$  denote the number of candidates representing the opinion  $i$ . Furthermore, let  $q_i$  denote the number of candidates representing the typical individual with opinion  $i$ . That is,

$$q_i = \frac{K_i}{N_i}$$

where an opinion group is e.g. voters who place themselves at ‘2’ on the left-right scale. The members of each opinion group, numbering  $N_i$  in total, may be drawn from multiple social groups  $j$ .

The number of candidates representing a typical member of group  $j$  is then given by

$$Q_j = \sum_i \frac{q_i \times N_{i,j}}{N_j}$$

Let  $\bar{q}$  represent the average value of  $q_i$  across all voters. That is, the average number of candidates representing a typical voter irrespective of their opinion. Then,

$$\bar{q} = \frac{K}{N} = \sum_i \frac{q_i \times N_i}{N} = \sum_j \frac{Q_j \times N_j}{N}$$

The relative opinion presence  $p_i$  of an opinion group  $i$  in this society is given by:

$$p_i = \frac{q_i}{\bar{q}} = \frac{K_i/K}{N_i/N} = \frac{\text{fraction of candidates with opinion } i}{\text{fraction of voters with opinion } i} \quad (1)$$

The quantity  $p_i$  therefore captures the number of candidates representing each voter who has the opinion  $i$ , relative to the number of candidates representing the average voter. The larger this number, the better is that opinion group represented by candidates.



The relative opinion presence  $P_j$  of a social group  $j \in G$  is then given by

$$\begin{aligned}
 P_j &= \frac{Q_j}{\bar{q}} \\
 &= \sum_{i=1}^n p_i \times \text{fraction of social group } j \text{ with opinion } i
 \end{aligned}
 \tag{2}$$

It is immediate that this quantity captures the number of candidates representing the typical member of group  $j$  *relative to the number of candidates representing the typical voter overall*. Mechanically, the average value of  $P_j$ , weighted by group size, must equal 1. When the relative opinion presence a group has is below 1, its opinions are under-represented by candidates relative to the size of the group in the electorate. Conversely, when it is above 1, the group is over-represented by candidates relative to its numbers.<sup>7</sup> On the other hand, if the relative opinion presence of a group is exactly 1, this means that members of that social group are as well represented by candidates as the typical voter (which may not be very well at all).

Our measure relates closely to measures of distributional (many-to-many) congruence already employed in existing work on ideological congruence (Golder and Stramski, 2010; Lupu, Selios and Warner, 2017) and on unequal representation based on income, education and gender (Giger, Rosset and Bernauer, 2012; Bernauer, Giger and Rosset, 2015; Lupu and Warner, 2022). As compared with earlier approaches – which compared, for instance, the (stated) preferences of the median voter and the median legislator in a polity (Huber and Powell, 1994; McDonald, Mendes and Budge, 2004) – these measures better capture the extent to which minority views (including within minority groups) are represented by political actors, an important criterion for effective representation according to many democratic theorists. However, compared to these earlier approaches, our measure is very straightforward to calculate, and so can easily be applied to study

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<sup>7</sup>As an example, if we calculate that high education voters have a relative opinion presence of 1.48, this means that the opinions of high education voters receive 48% more representation by candidates than does the opinions of the typical voter.

the representation of a large number of social groups, and in a large number of countries and years. It can also be straightforwardly interpreted to evaluate the *relative* political representation of different social groups – something which earlier measures did not seek to capture.

However, it is important to note that we cannot infer the overall level of distributional congruence in a system from this measure. For example, if the opinions of voters do not vary systematically by social group, the relative opinion presence of all social groups within a cleavage may be close to 1 but the overall distributional congruence low. However, if overall distributional congruence in a system is sufficiently high, no social group can have a relative opinion presence that is very different from 1.

## 2.2 Data and Empirical Strategy

We operationalize this measure by combining data on citizen preferences from Modules 3, 4 and 5 of The Comparative Study Of Electoral Systems (2015, 2018, 2022) database with data on the preferences of electoral candidates drawn from Modules 1 and 2 of the Comparative Candidates Survey (Binder et al., 2018, 2019). These surveys include information on the left-right self-placement of both respondents and candidates, as well as on some of their demographic characteristics, across 37 country-years, spread across 4 continents, 18 countries and a decade (2007-2017).<sup>8</sup> In future drafts, by incorporating more of the mass and elite surveys identified by Lupu and Warner (2022), we hope to expand the coverage of our dataset further. Information on the variables we used to bridge the two datasets is given in Table A.1 in the Appendix.

In addition to the left-right self-placement of respondents and candidates (measured

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<sup>8</sup>Our dataset currently includes: Australia (2007, 2013, 2019), Austria (2008), Canada (2008, 2015), Chile (2017), Estonia (2011), Finland (2011, 2015), Germany (2005, 2009, 2013), Greece (2009, 2012, 2015), Iceland (2009, 2013, 2016, 2017), Ireland (2007, 2016), Montenegro (2012, 2016), the Netherlands (2006), Norway (2009, 2013, 2017), Portugal (2009, 2015), Romania (2012), Switzerland (2007, 2011), Sweden (2014), and the United Kingdom (2015, 2017).

on a 0-10 scale), the CSES and CCS datasets also contain information on the gender, urban-rural location, and educational qualifications of respondents and candidates. Based on this information, we generated three separate binary variables taking the value 1 if (i) an individual identified as male, (ii) had some university education, or (iii) resided in/represented an urban area (and 0 otherwise). This gives us all the information necessary to calculate the relative opinion presence of individuals belonging to six social groups across three intersecting cleavages: men and women, urban and rural voters, and high and low education voters.<sup>9</sup> As discussed in Section 2.1, the relative opinion presence of each social group  $j$  is given by  $P_j$  (as specified in equation (2)), and takes into account the fraction of candidates, voters, and members of each social group, who choose each location on the left-right scale.

The CSES and CCS datasets also contain information on the ethnicity, age and occupational background of respondents and candidates. In future drafts, we hope to also incorporate information from these variables, which would allow us to also compare the relative opinion presence of the young and old, of the ethnic majority and minorities, and of individuals from different social classes. If there is sufficient data, we hope to also examine the relative opinion presence of social groups defined by the intersection of these various cleavages, such as that of working-class vs middle-class women.

A concern with reliance on elite surveys is non-response bias, or the extent to which elite samples are representative of the population of electoral candidates as a whole (Laver, 2014, 214). If, for instance, candidates who are more left-wing are more likely to respond to elite surveys, then our measure of the distribution of left-right opinion among candidates will be biased. However, previous research relying on similar surveys has not found evidence of systematic non-response bias among respondents (Saeigh, 2009; Fisher and

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<sup>9</sup>Due to our coding procedure, the category of ‘women’ also includes individuals who identify as non-binary or prefer not to respond, while the category of rural voters also includes individuals residing in suburban areas and small towns. This approach ensures that the social groups we consider are mutually exclusive and exhaustive in each case.

Harris, 2013; Byrne and Theakston, 2016; Lupu and Warner, 2022). Even so, we address the potential for such bias by post-stratifying our elite samples by the party affiliation of candidates, such that, for each country-year, the partisan distribution of candidates we examine matches the partisan composition of the legislature elected in that year.<sup>10</sup>

One limitation of our analysis is our reliance on left-right self-placement as a proxy for the political opinions of voters and candidates. This may be problematic, as conceptions of left and right are known to vary across contexts and individuals (De Vries, Hakhverdian and Lancee, 2013; Rodon, 2015; Bauer et al., 2017; Steiner, 2023). Additionally, studies relying on issue-specific measures of congruence have tended to find lower overall congruence (Thomassen, 2012; Dalton, 2017), as well as variation in patterns of congruence between issues (Rosset and Stecker, 2019; Lupu and Warner, 2022). We do so nonetheless in order to construct the largest possible comparative dataset – as candidate surveys do not routinely include questions on issue-specific opinion, and issue-specific questions typically vary across time and place. Nonetheless, it is possible that our estimates of congruence are biased downwards due to our reliance on this aggregated measure, and that issue-specific analyses might uncover different patterns of unequal group representation.

### 3 Results

Figure 1 plots the relative opinion presence of three different marginalized social groups, women, rural and low education voters, for all country-years in our sample. These quantities are plotted against the proportion of female candidates, candidates contesting rural seats, and low education candidates, respectively. As an initial exploration of the ‘ideological congruence controversy’ (Powell, 2009; Golder and Lloyd, 2014), country-years that use a majoritarian, mixed or proportional electoral system are plotted in red, blue

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<sup>10</sup>We obtained information on the partisan composition of each national parliament from ParlGov.

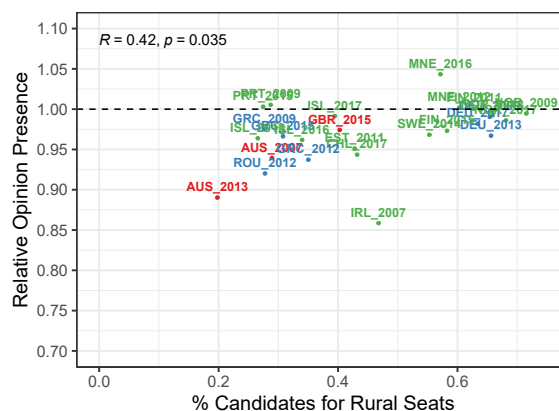
and green, respectively.<sup>11</sup> Recall that, if a social group has a relative opinion presence (ROP) of 1, this means that it is as well represented by candidates in that system as the typical voter – and so, not disproportionately poorly represented.

Figure 1: Patterns of Minority Opinion Representation in Democracies

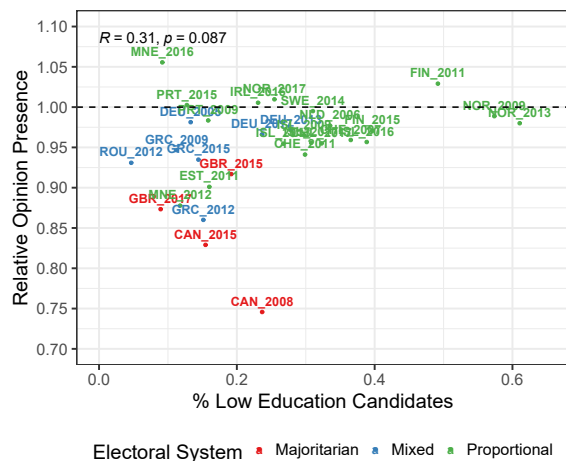
(a) Women



(b) Rural Voters



(c) Low Education Voters



In all cases, the patterns evident from these figures provide considerable face validity for our approach. We observe that, in all cases, the marginalized social group is disproportionately under-represented by candidates in a majority of country years, but that

<sup>11</sup>We code the electoral system used by each country in a given year based on their classification in the dataset compiled by Bormann and Golder (2013).

this is more common for low education voters than for either women or for rural voters. Moreover, there is some evidence that low education voters, in particular, appear to be better represented by candidates competing under PR than under majoritarian electoral rules (ref. Figure 1c). Finally, in all cases, how well the opinions of a marginalized group are represented in a system is positively correlated with the proportion of in-group candidates in that system.<sup>12</sup>

Table 1: Inequalities in Opinion Representation by Cleavage

Cleavage	ROP Minority	ROP Majority	Difference	p-value
Women / Men	0.975 (0.044)	1.03 (0.046)	-0.054***	p<0.001
Rural / Urban	0.969 (0.036)	1.06 (0.097)	-0.092***	p<0.001
No Higher Ed. / Some Higher Ed.	0.944 (0.068)	1.134 (0.144)	-0.189***	p<0.001

Note: This table compares the average relative opinion presence of minority and majority social groups across three cleavages: women vs. men, rural vs. urban voters, and low education vs. high education voters. Standard deviations are given in parentheses. Columns (3) and (4) report results from a series of paired *t*-tests of the hypothesis that, on each cleavage, the minority and majority social group has equal relative opinion presence.

Table 1 compares the average relative opinion presence of minority and majority social groups across three cleavages: women vs. men, rural vs. urban voters, and low education vs. high education voters (standard deviations in parentheses). We find that, in each case, the minority social group receives worse relative opinion representation from electoral candidates than the majority social group (ref. columns (1) and (2)). Columns (3) and (4) report results from a formal statistical test of this hypothesis, based on a series of small-

<sup>12</sup>Though note that we do not have information on the proportion of candidates who are themselves from rural communities, only whether they are contesting a rural seat. For this reason, when we directly analyse whether a social group is better represented by in-group candidates (in analyses reported in Table 2), we limit attention to women and low-education voters/candidates.

sample difference-in-means tests.<sup>13</sup> We find that the differences are statistically significant in each case, but that low education voters receive especially poor representation, as compared with rural and female voters. In particular, the opinions of low education voters receive about 5% less representation among candidates than their numbers would warrant, while those of high education voters receive 14% more representation than they might deserve. Meanwhile, although the opinions of women receive 2.5% less, and those of men 3% more, representation than they might deserve, this disparity is considerably smaller. The same is true when we consider the representational disparity which occurs between rural and urban voters, whose opinions receive 3% less and 6% more representation by candidates, respectively. These findings reaffirm the conclusion that low education voters are a particularly marginalized group in contemporary democracies (Hakhverdian, 2015; Schakel and Hakhverdian, 2018; Rosset and Stecker, 2019).

Table 2 reports results from a series of analyses that compare the average relative opinion presence of two minority groups – women and low education – by candidates overall, and by in-group candidates (i.e. female and low education candidates respectively). This allows us to speak to the question of whether improvements in the descriptive representation of marginalized groups has implications for their substantive representation, without assuming uniform preferences or interests among members *or representatives* of these groups, as almost all other studies in this literature have done.<sup>14</sup>

Specifically, we again report results from a series of small sample (paired) difference-in-means tests, again allowing for unequal variances across categories, where the null hypothesis is one of no difference in representation of minority opinions by all candidates and in-group candidates. We first estimate a difference-in-means test after averaging across the relative opinion presence of women and low education voters in each country year, with standard errors clustered by country-year. We repeat this analysis for women

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<sup>13</sup>Specifically, we employed a paired *t*-test, allowing for unequal variances across categories.

<sup>14</sup>To our knowledge, Hakhverdian (2015) provides the only exception, but his analysis is limited to the Netherlands and to a single cleavage (education).

Table 2: Are Minority Opinions Better Represented by In-Group Candidates?

<b>Type of Minority</b>	ROP (All)	ROP (In-Group)	Difference	p-value
Both	0.960 (0.061)	2.22 (1.895)	1.264***	p<0.001
Women	0.975 (0.045)	2.599 (1.837)	1.615***	p<0.001
Low Education Voters	0.942 (0.070)	1.848 (1.911)	0.901*	p=0.018

Note: This table compares the average relative opinion presence of women and low education voters by all candidates and by in-group candidates. Columns (3) and (4) report results from a series of paired *t*-tests of the hypothesis that there is no difference in the representation of minority opinions by all candidates and in-group candidates. Standard errors in the analysis pooling both groups are clustered by country-year.

and for low education voters separately.

We consistently find that the opinions of women and low education voters are much better represented by in-group candidates than they are by candidates overall. Specifically, we find that female candidates are about 2.5 times as likely to represent the views of the typical female voter as they are the typical voter, and low education candidates twice as likely to represent the views of low education voters relative to those of the typical voter. These differences are both substantively large and highly statistically significant.

Finally, Table 3 reports results from a series of analyses that speak to the ‘ideological congruence controversy’ (Blais and Bodet, 2006; Powell, 2009; Golder and Lloyd, 2014). In particular, columns (2) and (3) report the average relative opinion presence of the minority groups we consider, in combination as well as separately, in systems employing majoritarian and proportional electoral rules respectively. Mixed electoral systems are excluded. As a baseline, column (1) reports the average relative opinion presence of each



Table 3: Electoral Rules and Minority Opinion Representation

Type of Minority	ROP (All)	ROP (Majoritarian)	ROP (Proportional)	Difference	p-value
All	0.963 (0.053)	0.920 (0.082)	0.976 (0.042)	-0.056*	p=0.014
Women	0.975 (0.044)	0.982 (0.026)	0.979 (0.051)	0.003	p=0.832
Rural Voters	0.969 (0.036)	0.935 (0.042)	0.975 (0.038)	-0.041	p=0.230
Low Education Voters	0.944 (0.068)	0.853 (0.083)	0.974 (0.039)	-0.122**	p=0.008

Note: This table compares the average relative opinion presence of minority social groups overall, in proportional and in majoritarian systems. Columns (4) and (5) report results from a series of paired *t*-tests of the hypothesis that there is no difference in the representation of each group in the two systems.

minority group across all country-years in our sample (also reported in Table 1). Columns (4) and (5) present results from formal statistical tests of the hypothesis of no difference, again based on a series of paired *t*-tests.

Contrary to some of this literature, we find some representational advantage for PR over majoritarian electoral systems, with minority opinions receiving about 5% less representation by candidates in majoritarian systems than under PR. This appears to be driven by the especially poor representation of low education voters in majoritarian systems (in this analysis, Canada and the United Kingdom) – with the opinions of low education voters receiving almost 15% less representation than the typical voter in such systems, but only about 3% less representation under PR. This may be linked to the particularly low number of low education candidates contesting elections in those systems, as compared to, for instance, the Nordic countries (ref. Figure 1c). However, our findings do not challenge the general conclusion in this literature that systems which are more proportional do not generally produce better ideological congruence between citizens and governments, as by focusing on the representation of citizens by electoral candidates, we

are concerned with an earlier point in the ‘chain of delegation’ than studies focused on governmental congruence (Mueller, 2000).

## 4 Conclusion

This study introduces a novel measure of ideological congruence, which we term “relative opinion presence”. Our proposed measure assesses ideological congruence between candidates and voters in democratic systems by quantifying the degree to which the opinions of members of certain social groups are represented compared to the opinions of a typical voter in the electorate.

Our findings reveal substantial and systematic inequalities in ideological representation across multiple societal cleavages. The opinions of women, rural and low education voters are under-represented in the majority of our 37 country-year cases. Among these three social groups, low education voters experience the lowest level of representation relative to the typical voter in their countries.

We link our measure of relative opinion presence to debates on descriptive and substantive representation by examining whether candidates and voters with similar demographic characteristics demonstrate higher levels of ideological congruence. Our results indicate that in-group candidates are significantly more likely to align with the preferences of their respective social group rather than the median voter. This finding suggests that descriptive representation matters for the quality of substantive representation.

Moreover, this study re-examines the empirical relationship between electoral systems and ideological congruence. While previous studies have disagreed on the effect of proportional representation, this study presents some evidence that PR systems perform better at representing the opinions of minority groups when compared to majoritarian systems.

In future drafts, we plan to extend the scope of this paper by incorporating mass and elite surveys from additional countries. We will also expand our analysis to social

cleavages based on age, profession, ethnicity, and examine the intersectional dynamics of multiple sources of marginalization.

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# Appendices

## A Data Description

Table A.1: Bridge Variables for CSES and CCS Data

	Variable	CCS 1	CCS 2	CSES 3	CSES 4	CSES 5
	Country	t1				
	Year	t3				
	Country-Year		T1	C1004	D1004	E1004
Left-Right	Self-Placement	c3	C3a	C3013	D3014	E3020
	Gender	e1	E1	C2002	D2002	E2002
	Urban	e4	E4	C2030	D2031	E2022
	Ethnicity	e13	E14	C2008	D2029	E2015
	University	e6a	E6a	C2003	D2003	E2003
	Elected	t8	T11			
	Party	a1	A1	C3020_3	D3018.3	E3024.3