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Are poor people poorly heard?

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Abstract. A growing body of literature shows that the preferences of poorer groups in society are less well represented than the preferences of the rich. This paper scrutinises one possible explanation of inequality in representation: that politicians hold biased perceptions of what citizens want. We conducted surveys with citizens and politicians in four countries: Belgium, Switzerland, Canada and Germany. Citizens provided their preferences regarding concrete policy proposals, and then politicians estimated these preferences. Comparing politicians' estimates with the actual preferences of different social groups, the paper shows that politicians' perceptions are closer to the preferences of the richer than to those of poorer people for issues that matter most for economic inequality: socio-economic issues. Further, we find that especially right-wing politicians tend to think about the preferences of richer societal groups when estimating the preferences of their partisan electorates on socio-economic matters.

Keywords: elected representatives; perceptual bias; political inequality; political representation; survey research

Introduction

A rich body of work on substantive representation has shown that political decision making is relatively responsive to citizens' preferences (e.g., Soroka & Wlezien, 2009). Although these findings may seem comforting from a democratic standpoint, they hide one important issue: there are systematic socio-economic inequalities in political representation. Specifically, the preferences of less affluent groups in society are less well represented than those of affluent groups (Gilens, 2012; Persson & Sundell, 2023). Relatedly, political representatives tend to be more congruent and responsive to the demands of higher-educated citizens than to those of the lower-educated (Elsässer et al., 2021; Rosset & Stecker, 2019; Schakel & Van Der Pas, 2021). This paper examines how citizens with different economic resources are heard, distinguishing between richer citizens (the higher-income half of the population) and poorer citizens (the lower-income half)[1].

Concerned about democracy's apparent failure to give all citizens an equal voice (Dahl, 1961), scholars have tried to understand the origins of these inequalities. They have mainly focused on the role of elections in translating voters' preferences into policies, finding that elected representatives' attitudes do not reflect underprivileged citizens' attitudes very well (e.g., Giger et al., 2012; Schakel & Hakhverdian, 2018). Because poorer citizens vote less often and because they are more likely to vote for candidates and parties that do not represent their preferences best (Lesschaeve, 2017b), politicians' preferences are not a representative cross-section of citizens' preferences. This contributes to inequalities in policy making.

In this paper, we scrutinize another possible and overlooked factor contributing to representation inequalities: biased perceptions of public opinion. When they make decisions, politicians not only rely on their own ideology and preferences; they also consider what they think citizens want given that these citizens might hold them accountable at the end of the legislative term (Stimson et al., 1995). Previous research suggests that politicians with more accurate perceptions of public opinion are more likely to develop policies that are congruent with citizens' desires, irrespective of their own preferences (Butler & Nickerson, 2011; Sevenans, 2021). If politicians' perceptions are skewed towards the preferences of privileged voters, politicians will overrepresent these voters in their political actions, at the expense of underprivileged citizens.

A growing literature shows that politicians' perceptions of public opinion are surprisingly inaccurate (e.g., Broockman & Skovron, 2018; Walgrave et al., 2023), and theoretical accounts suggest this inaccuracy may be (partly) related to inequality (e.g., Bartels, 2008; Peters, 2018; Rosset, 2016). Building on recent advances (Pereira, 2021; Sevenans et al., 2022), we provide a comparative investigation into the inequality of politicians' public opinion perceptions.

Investigating inequalities in politicians' perceptions of public opinion is important from a normative standpoint because it can help us identify potential remedies for representational inequalities. If politicians have biased views of citizens' preferences, measures can be taken to raise politicians' awareness of the poor people's policy preferences (e.g., invest in contacts or more and better polling) (for a similar argument, see Jablonski & Seim, 2022). However, if politicians have balanced public opinion perceptions, a focus on increasing the incentives for politicians to act upon the wishes of these disadvantaged citizens seems more appropriate.

This paper investigates inequalities in politicians' perceptions of public opinion on economic and non-economic policies, a common distinction in the literature on unequal representation (Gilens, 2012; Lesschaeve, 2017b). Economic issues include redistribution, labour conditions and taxation, while non-economic issues cover the socio-cultural dimension (migration, law and order, the environment) and institutional matters. Studying all policy areas is crucial: they represent different dimensions of the organisation of a society and the under-representation of any voter group on any dimension undermines democratic representation. At the same time, the analysis distinguishes between economic and non-economic issues due to expected differences in inequalities. Factors such as issue salience, the decline of trade unions and inequalities in the interest group system (Becher & Stegmueller, 2021; Gilens & Page, 2014; Kriesi et al., 2006) may contribute to greater inequalities in economic issues compared to non-economic ones.

To examine whether politicians' public opinion perceptions are biased toward the preferences of the rich, we use data from surveys with politicians and citizens in four countries: Belgium, Switzerland, Canada and Germany. Citizens shared their preferences regarding concrete policy proposals. At about the same time, politicians estimated the preferences of the general public, and of their own partisan electorate, regarding the same proposals. This setup allows us to compare politicians' estimates with the *actual* preferences of different socio-economic groups. The evidence shows that politicians' public opinion estimates are closer to the preferences of privileged voters than to those of underprivileged voters on socio-economic issues, such as redistribution and labour conditions. This bias is consequential because these socio-economic issues matter most for the maintenance of economic inequality. We also show that right-wing politicians have a larger bias towards the opinions of the rich when estimating their own party electorate's opinions on socio-economic policy issues. The results are robust across different indicators of socio-economic status: they hold irrespective of whether we rely on income or self-reported social class. Overall, this

study reveals that biased perceptions are significant and can contribute to inequality in substantive representation.

Biased perceptions as a cause of unequal representation

This paper builds upon a substantial body of research on political representation, defined as the activity of 'making citizens' voices, opinions, and perspectives "present" in public policy-making processes' (Dovi, 2018). Specifically, the study of politicians' perceptions focuses on substantive representation, which puts the focus on the actions taken by representatives 'on behalf' and 'in the interest' of the represented (Pitkin, 1967, p., 112–14). Perceptions of public opinion are crucial for substantive representation for several reasons (see Walgrave et al., 2022). First, politicians must understand voters' interests and preferences to be genuinely responsive to them. Second, accurate knowledge of public opinion helps politicians justify policy decisions that diverge from what the public want (Pitkin, 1967, p. 209). Finally, perceptions are crucial for political legitimacy because voters are concerned about the ability of politicians to understand and consider their views (Dassonneville et al., 2021; Doherty et al., 2019). Therefore, inequalities in how politicians perceive public opinion can undermine equal responsiveness, bias communication between politicians and voters and erode trust in representative institutions.

Research has shown that there is inequality in political decision making in the sense that the preferences of poorer citizens are less well represented than the preferences of richer groups. These findings originally came from the United States (Bartels, 2008; Flavin, 2015; Gilens, 2005; 2012) but research has recently found similar representational inequalities also in Western-European countries (Elsässer et al., 2021; Peters & Ensink, 2015; Schakel, 2021), even if economic inequality is less pronounced than in the United States (US) (Alvaredo et al., 2018). In a recent cross-country analysis, Persson and Sundell (2023) found that the policies supported by richer voters in Europe are more likely to be implemented than those supported by poorer voters. Although caution is needed as the preferences of poor and rich groups do not (always) differ that much (Branham et al., 2017), most scholars now agree that substantive representation in many democracies is characterised by a certain level of inequality (Burgoon et al., 2022). Both agenda-setting and policy making in many issue domains are more responsive to the preferences of the rich than to those of the poor (Traber et al., 2022).

Existing research has so far examined unequal representation through the angle of policy and opinion congruence. Scholars showed that policy outcomes are closer to the preferences of privileged voters (Bartels, 2008; Gilens, 2005; 2012) and that these findings are (partly) explained by the fact that MPs' own positions are closer to those of more affluent citizens (e.g., Giger et al., 2012; Lupu & Warner, 2017; Rosset & Stecker, 2019; Schakel & Hakhverdian, 2018). This line of research corresponds to the 'congruence path' of the well-known diamond of representation of Miller and Stokes (1963), which represents how voters' preferences, through the election of representatives who share their views, are translated into congruent decisions. The main conclusion is that poorer citizens are less likely to turn out to vote and more likely to vote for an incongruent political candidate or party. As a result, their preferences are less well represented in politicians' views and, therefore, in the decisions made by these politicians (Lesschaeve, 2017b).

Miller and Stokes (1963) proposed a second pathway to policy congruence: through MPs' *perceptions* of public opinion. Although less attention has been devoted to this path, it has recently

attracted some attention (see e.g., Belchior, 2014; Broockman & Skovron, 2018; Miller, 1999; Pereira, 2021; Walgrave et al., 2023). The idea is that MPs do not blindly follow their own ideological views, but balance them against the preferences of the citizens, or at least against their perceptions of these preferences (Stimson et al., 1995). Even if politicians themselves are not in favour of a policy that is wanted by the public, out of anticipation of electoral sanctions or rewards, they may introduce it if they correctly read the public's preference and act on this perception (Soontjens & Sevenans, 2022). Previous research shows that politicians with accurate perceptions of public opinion are more likely to vote for policies that align with public sentiment (Butler & Nickerson, 2011; Sevenans, 2021).

Despite its significance for policy congruence, this perceptual path has received little attention in the analysis of unequal representation. Nevertheless, there are good reasons to expect that politicians may have skewed perceptions of public opinion, which can cause unequal representation when these biased perceptions are translated into political action. We posit that legislators' perceptions are likely biased towards the preferences of privileged economic groups because of three reasons: (1) informational disadvantage, (2) political disadvantage and (3) shared social background.

First, biased perceptions could result from the unequal provision of information because the disadvantaged participate less in politics. Poorer citizens protest less, contact politicians less often, are less active in constituting interest groups to defend their interests and their turnout at elections tends to be lower (Gallego, 2015; Lijphart, 1997; Schlozman et al., 2012). This unequal participation not only makes it harder for politicians to know what underprivileged groups want (factually), but politicians also risk underestimating the size of the group holding these opinions (even if they know it) because such information is much less prominent in their information environment. Research has shown that when legislators think about their constituency, they spontaneously think of the more active and resource-rich constituents (Miler, 2007). This is consequential because contact with political representatives helps reduce inequalities in responsiveness (Bartels, 2008). In short, politicians need to make serious efforts if they want to collect information on disadvantaged groups' preferences, while the information about the issue preferences of more privileged social groups reaches them more easily.

Second, from a strategic point of view, politicians may have fewer incentives to gather information on the preferences of economically disadvantaged citizens. A first factor relates to the electoral consequences of ignoring the poor. Literature has demonstrated that politicians may care less about underprivileged citizens because they participate less in politics and, consequently, are less like to turn out on election day and hold politicians accountable at the ballot box (Griffin & Newman, 2005). A second factor is money-related: understanding (and responding to) the rich might be a politician's priority because they are indispensable as campaign contributors (Flavin, 2015). A third factor is that the preferences of poorer citizens may be more discounted than those of the rich. As income is significantly correlated to factors like education, political interest and knowledge, politicians may have doubts about the quality of the poor's opinions and therefore may invest less time in learning about them (Butler, 2014; Sevenans & Walgrave, 2022).

Third, skewed perceptions can originate from who politicians themselves are. While individuals can try hard to understand social groups they do not belong to, research has shown that people often rely on introspection, personal experiences and conversations with their close networks to form an understanding of others' preferences (Esaiasson & Holmberg, 1996; Nir, 2011). This

is no different for politicians, who disproportionally have a high-income background (Rosset, 2016) and have a relatively high income while in office. Moreover, politicians, too, are subject to 'motivated reasoning', meaning they are inclined to pay more attention to information that confirms their own views (Zaller, 1990). Because politicians' preferences are more congruent with the preferences of the privileged (Bernauer et al., 2015; Giger et al., 2012; Lefkofridi & Giger, 2020), they might (unconsciously) give more credit to the opinions of people who resemble them and who think like them. Hence, the privileged social background of political representatives may be an obstacle to seeing and appreciating disadvantaged groups' preferences (Mansbridge, 1999). In sum, because the social background of MPs can distort their perceptions of public opinion, the lack of descriptive representation of underprivileged voters may directly contribute to unequal substantive representation.

For these three reasons, we expect MPs' perceptions of public opinion to be closer to the preferences of high-income citizens than to those of low-income citizens. First empirical evidence supports this expectation. Relying on data from Sweden, Pereira (2021) shows that politicians' beliefs about their party electorate disproportionately reflect the preferences of more privileged sub-constituencies. Another study by Sevenans et al. (2022) focus on another, but related type of inequality (education) and reach similar conclusions: not all citizens weigh equally on politicians' views of citizens' policy preferences.

Building on these findings, we investigate in this paper the extent to which MPs' perceptions of public opinion are biased towards the preferences of affluent economic groups. We examine not only politicians' perceptions of their own party voters' opinions (see Pereira, 2021) but also their perceptions of the general public opinion. Once elected, politicians are not just representatives of their party voters. Some attach more importance to representing the whole population than to representing their district or their own voters (Brack et al., 2012). Because of the relevance of both partisan and collective types of representation, we examine both types of perceptions and we expect to find unequal perceptions for both of them. Indeed, the mechanisms we outlined above as drivers of unequal representation, such as the higher levels of political participation and campaign contributions by richer citizens, apply both to the general public and to party supporters. Moreover, due to their own background, politicians are likely to have a non-representative social network composed of both party voters and citizens with a different party affiliation. This brings us to the first two hypotheses[2] of our study:

H1: Politicians' perceptions of the general public's preferences are closer to the preferences of high-income citizens than to the preferences of low-income citizens.

H2: Politicians' perceptions of the preferences of their own partisan electorate are closer to the preferences of high-income partisan voters than to the preferences of low-income partisan voters.

It is beyond the scope of this paper to disentangle the role of the different mechanisms that may lead to skewed perceptions. Our study provides a first systematic and comparative test of the occurrence of inequality in politicians' perceptions of public opinion, but we leave it to future research to pinpoint the specific causes of these biased perceptions and to measure their consequences in terms of actual policy output.

Issue differences and the impact of cross-pressured voters

So far, we have assumed that perceptual biases occur for all sorts of issues. However, we may expect differences among policy issues. Because political competition in established democracies takes place in a two-dimensional space (Kriesi et al., 2012), we distinguish between the socio-economic and the socio-cultural dimensions. While the economic axis is about redistribution, material needs and regulating the market, the cultural axis relates to identity, law and order and immigration policies (Oesch & Rennwald, 2018).

The literature finds some representational inequalities across all policy issues (Elsässer et al., 2021) but, at the same time, stresses that disadvantaged voters are more often underrepresented on socio-economic issues (e.g., redistribution of wealth from rich to poor) than on socio-cultural issues (e.g., immigration, European integration) (Gilens, 2012; Lesschaeve, 2017a). Following these findings, we expect politicians' perceptions of public opinion to be more skewed on socio-economic than on socio-cultural issues. Several arguments support our expectations.

First, the decreasing salience of economic politics may have blurred the public opinion information received by politicians regarding socio-economic issues (Kriesi et al., 2006). At the same time, the decline of trade unions (Hassel, 2015), historically instrumental in mobilising workers and channelling their views in policymaking (Hooghe & Oser, 2016; O'Grady, 2019), may result in difficulties for politicians to understand the views of poor voters on economic matters. By contrast, the increasing emphasis on socio-cultural issues in the media and public debate, along with the politically salient cultural backlash (Dennison, 2020; Dennison & Geddes, 2019; Kriesi et al., 2006; Norris & Inglehart, 2019; Spies, 2013; Walter, 2021), should lead to politicians receiving more extensive public opinion information on cultural matters. Second, richer citizens possess more resources and tend to be more politically active than poorer citizens. These resources allow them to invest in influencing policymaking on economic matters due to their direct interests in these matters. Economic policy decisions revolve around issues of (re)distribution and market regulation, directly affecting the material well-being of wealthier voters. Conversely, richer voters lack a similar incentive to convey their views regarding cultural issues, which primarily involve diffuse values and principles.

Third and finally, the information environment of politicians is more likely to be skewed on socio-economic issues due to politicians' close ties with business-oriented interest groups. These groups allocate substantial resources to promote their specific economic interests and tend to enjoy greater access to politicians than citizen groups (Binderkrantz et al., 2015; Gilens & Page, 2014; Schlozman et al., 2012). The overrepresentation of business groups, primarily concerned with economic policies, can contribute to biasing politicians' perceptions of public opinion on economic matters compared to cultural ones (Eichenberger et al., 2021).

H3: The bias in politicians' perceptions of the general public and of their party electorate towards the preferences of high-income citizens is larger for socio-economic issues than for other issues.

Finally, we expect that politicians' party affiliation will moderate the relationship between the types of policy issues and perceptual biases. Specifically for right-wing politicians, their perceptions are more skewed towards the preferences of high-income voters on economic issues

than on non-economic issues. This argument relates to the characteristics of their party electorates and their consequent effects on public opinion information and opinion congruence.

The party electorate of right-wing politicians is likely to be more heterogeneous than that of left-wing parties because of the electoral choice of cross-pressured voters, particularly those with low incomes. Research has revealed that low-income voters often hold left-authoritarian attitudes, combining left-wing economic with right-wing authoritarian cultural positions (Häusermann & Kriesi, 2015; Kitschelt & Rehm, 2014; Oesch & Rennwald, 2018). These voters face challenges in finding a party that aligns with their views on both dimensions and, therefore, tend to vote for the party that represents them on only one dimension (Hillen & Steiner, 2020). Because the electoral choices of these voters are often determined by issue salience (Lefkofridi et al., 2014; Spies, 2013), and given the increasing prominence of cultural issues, these voters tend to base their votes on their right-wing cultural attitudes (Gidron, 2022; Hillen & Steiner, 2020), leading them to support (extreme) right-wing parties. As a result, this dynamic creates intra-party heterogeneity on socio-economic preferences within right-wing parties. In contrast, left-wing parties tend to attract voters who hold progressive attitudes on both dimensions (Gidron, 2022). Indeed, cross-pressured voters are more likely to favour right-wing parties than left-wing ones (Kurella & Rosset, 2018; 2017), resulting in greater homogeneity within the electorates of left-wing parties.

The characteristics of right-wing parties' electorates may have two important implications for MPs' perceptual biases. First, the existence of preference heterogeneity on socio-economic issues within right-wing parties may complicate the estimation process for right-wing politicians. Indeed, conservative politicians, who do not see economic inequalities as unfair and problematic (Breunig & Loewen, 2021) and who are more likely to be contacted by rich citizens on economic matters, may fail to recognise that there are less privileged citizens within their party's voter base who support redistributive economic policies. Conversely, due to the greater homogeneity within their party's electorate, left-wing politicians should receive clearer public opinion signals on these economic issues.

Second, this heterogeneity should also affect the level of opinion congruence between right-wing politicians and their voters on economic issues. On economic issues, the presence of many cross-pressured voters means that right-wing politicians have an electorate that includes groups of voters with both right-wing and left-wing attitudes. Given that politicians often project their opinions onto their voters (Sevenans et al., 2023), right-wing politicians may erroneously assume that all their party voters share their right-wing economic positions, when in fact, this is not the case. Consequently, they are more likely to overlook the left-wing economic attitudes held by their less privileged cross-pressured voters.

H4: The bias in politicians' perceptions of their party electorate towards the preferences of high-income citizens is larger for socio-economic issues than for non-economic issues only for right-wing politicians.

Data

Our data were collected in the framework of the POLPOP project. The wider project examines the accuracy of politicians' public opinion estimates comparatively. Our research design combines two types of data. On the one hand, a representative population survey measures citizens' opinions on several concrete policy proposals. On the other, an elite survey assesses politicians' perceptions

of the public's preferences regarding the same set of policy proposals. Given this paper's focus on inequality, we compare politicians' perceptions of public opinion with the actual opinions of citizens belonging to different income groups.

The project covers five political systems across four countries: Canada, Flanders (Belgium), Germany, Switzerland and Wallonia (Belgium).[3] Despite some differences (e.g., Canada has a first-past-the-post instead of a proportional electoral system and has therefore fewer parties; Belgium has a compulsory voting system), our cases are all Western democracies with similar political characteristics and relatively similar, low levels of income inequality (e.g., all have a GINI-index between 27 and 34). Our country selection is in that sense a conservative case for finding representational inequality in politicians' perceptions – if we find it in these systems, it likely also exists elsewhere. With only four countries, we do not have sufficient variation for a truly comparative design. Instead, the variation between the political systems serves as a robustness check for our results. If we obtain similar results in the different cases, our results are likely generalizable to other Western democracies.

The population surveys were conducted online, with the help of survey companies. The companies were asked to provide a representative sample of citizens based on age, gender and education – which they did by drawing a sample from actual census data (Switzerland) or by enforcing quotas (other countries). At least 1,000 citizens were surveyed in each country. Full details about response rates are provided in the Supporting Information Appendix 1.

Citizens were asked to give their opinion about eight or nine specific policy proposals.[4] The selection of the proposals deserves some attention. Since the political context and the current debates in each country vary, the policy proposals were not chosen to be identical but equivalent.[5] Several criteria were important. First, proposals should not be overly technical and should be easy to judge, even with little prior knowledge. Second, we did not invent new proposals but drew on existing debates. Third, a country's batch of proposals needed to vary in several respects. We aimed for variation in salience (but there are no non-salient issues); in issue type (i.e., some socio-economic issues, some socio-cultural issues and some issues not belonging to any of the cleavages); and in the distribution of public (and partisan) support (e.g., a polarised public vs. divisions within each party vs. a rather unanimous public). The final batches of proposals were carefully selected, based on these criteria and sometimes with the help of pre-test surveys. We believe they cover the full spectrum of possibly relevant political issues relatively well. We classified all proposals as socio-economic, socio-cultural or neither.[6] Citizens had five answer options: totally disagree, rather disagree, rather agree, totally agree or undecided (neutral or no opinion). A full overview of all proposals can be found in the Supporting information Appendix 2.

Citizens were requested to provide socio-demographical information, including their household income. Answer categories were country-specific – for the full question wording, see Supporting Information Appendix 1. This question allows us to differentiate between income groups. Citizens were also asked about their voting behaviour in the previous elections using the question: 'Which party did you vote for in the last general elections?' They could tick a specific party, or indicate that they voted for 'another' party, did not (validly) vote, or preferred not to say. This question allows us to delineate the partisan electorates.

For the elite survey, we targeted members of parliament (MPs) at both the national (in all countries) and regional (in Belgium, Canada and Switzerland) levels[7]. Politicians completed our questionnaire during a face-to-face meeting on a laptop brought by the interviewer who was present in the room but did not intervene or observe the answers given. The setup guaranteed that

politicians themselves and not their staffers answered our questions – which is a common problem in a lot of online elite research. In each country, the interview period lasted about 6 months and took place somewhere between March 2018 and September 2019. In total, 866 politicians participated in the survey, equalling an overall satisfactory response rate of 45 per cent. Note that response rates vary substantially between countries, with exceptionally high response rates in Belgium (77 per cent) and Switzerland (74 per cent) and lower rates in Germany (16 per cent) and Canada (17 per cent). However, the sample of participating politicians is large enough in absolute numbers to run the planned analyses *and* the group of participating politicians reflects the population in each country well in terms of age, gender, seniority and party affiliation. The differential response rates should not bias the analysis (which focuses on within-country patterns). For more details on the elite sample, we refer to Supporting Information Appendix 3.

Politicians were asked to make an estimation about each policy proposal twice: first, they assessed the preferences of the general public opinion for all proposals; then they gauged the support among their own partisan electorate. Each time, there were two questions. First, they were asked to estimate how many citizens do not have an opinion about a proposal: '*What percentage of citizens do you think is undecided (neutral or no opinion) about this policy proposal? Please give us your best guess by dragging the bar to the correct percentage*'. Second, they estimated the agreement level among the others: '*And, what percentage of those citizens who have an opinion rather agree or totally agree with this policy proposal*?' The former question was included to avoid confusion regarding how to treat undecided voters, but it is the latter question that is relevant for our analysis. We compare this percentage to the actual proportion of citizens who agree with each proposal (as derived from the citizen survey data, after discarding the undecided citizens). As an exception, politicians in Switzerland did not estimate the general public opinion (only the partisan electorate) which is why they are not included in the first part of our analysis.

Finally, some of our models include additional variables. To account for the politicians' left–right position, we use data from the Chapel Hill Expert Survey data from 2014 (Jolly et al., 2022). Politicians' ideological positions are the position of their political party. For Canada, the ideology estimates were provided by the team member specialised in Canadian politics. A table listing all political parties included in the analysis, along with their corresponding left–right scores, can be found in Supporting Information Appendix 6. Lastly, we have two control variables: politicians' seniority (corresponding to the first election in parliament) and their gender (female or male).

Methods

To explain how we measure inequality in politicians' perceptions of public opinion, it is helpful to use an example from our dataset. In Switzerland, 75 per cent of the population agrees that 'taxes on high-income should be raised while taxes on low-income should be reduced'. People with different incomes, however, have different opinions on the matter: among the poorest half of the population, the agreement is 86 per cent (11 percentage points above the general average); among the richest half, it is only 64 per cent (11 percentage points below the general average). An 'equal' public opinion perception would be a correct public opinion perception. That is, if a politician accurately estimates the percentage of agreement with the proposal to be at 75 per cent, this means that (s)he has taken all citizens' opinions into account, in an equal manner. If the estimate of the politician is inaccurate, however, and too low (e.g., at 70 per cent), it suggests that the preferences of richer citizens (who agreed at lower rates) have weighed more on the estimation than the preferences

of poorer citizens (who agreed at higher rates). Conversely, if the estimate is too high (e.g., at 85 per cent), it shows an overweighting of the preferences of the poor. Put differently, in the former scenario, politicians' estimates are 'biased' (or 'skewed') towards the preferences of the rich; in the latter scenario, they are 'biased' towards the preferences of the poor. Of course, inaccuracy on one policy proposal does not make representational inequality; we would need to find a structural and systematic bias towards the preferences of rich people, across policy proposals and countries, to be able to speak of inequalities in politicians' perceptions of public opinion.

In our analysis, we use the question on household income to calculate the level of support for each proposal within two population groups of equal size: the poorer half and the richer half.[8] We do the same for each partisan electorate. Our dependent variable is the absolute distance between a politician's estimate and the actual opinion of an income group. Each observation in our dataset represents how an estimate, by a specific politician, on a given policy proposal, deviates from the actual percentage of agreement within an income group. Our goal is to examine whether this absolute distance between the estimate and the actual opinion is larger for the poorer half of the population than for the richer half (H1 and H2), especially for socio-economic issues (H3), and – specifically for party electorate estimates – whether this applies in particular to right-wing politicians (H4).

One may wonder why we use a crude division into two groups and not income terciles, which are also used in inequality research (see e.g., Bartels, 2008 who works with a 'low income', 'middle income' and 'high income' group). There are methodological and theoretical reasons for this choice. The main methodological reason is that the assumption that an 'equal' estimate of public opinion is equally close to each income group does not hold when using three groups. With two groups, the general public opinion lies exactly in the middle of the two groups, and we can interpret a larger absolute distance from one group as a sign of inequality. With three groups, this is untrue: behind a general 75 per cent agreement there may, for instance, be a 65 per cent (poor) – 80 per cent (middle group) – 80 per cent (rich) division; and hence an estimate (75 per cent) may seem further off the preferences of the poor (10 percentage points distance) than of the other two groups (5 percentage points distance) even if it is actually correct and represents each citizen equally. Thus, our fine-grained absolute distance measure is not suitable for a three-group operationalisation. Moreover, using two groups reduces uncertainty in estimating citizens' opinions (which is important due to the limited sample sizes of the population surveys).

Theoretical considerations also support our binary approach. The general tenet of the inequality literature is that the richer one is, the better one is represented politically (Erikson, 2015). Splitting between two groups is sufficient to test whether that pattern applies to politicians' perceptions of public opinion. Still, because some scholars stress that political representation is not (only) about the rich being represented better than the poor, but (also) about the relative position of the middle class (e.g., Elkjær & Iversen, 2023), we report exploratory analyses from a three-group analysis, relying on a different analytical approach, in Supporting Information Appendix 11. Our conclusions are that (1) for socio-economic issues, where the poor have less influence on politicians' estimates than the rich (see below), there is no difference between the poorest and the middle terciles; (2) for socio-cultural issues, where we find no such difference – in fact, the poor even have slightly more influence than the rich – we observe the middle group has the weakest influence.

In our main analyses, we only include policy proposals for which the preferences of the poor and the rich groups differ significantly from each other.[9] It would be unhelpful to study

representational inequality in cases where there are no preference differences (Branham et al., 2017). In the following section, we first examine the extent to which poorer and richer citizens hold different policy preferences, and only when they do, we examine the distance between these preferences and politicians' perceptions. Models including *all* policy proposals can be found in Supporting Information Appendix 4 as a robustness test. As expected, the results remain substantially the same, but the effects are smaller due to the inclusion of proposals on which there are no preference differences between low- and high-income citizens. The results section is divided into two parts: first, we look at the general public opinion; then we focus on specific party electorates.

Results

We start with the politicians' perceptions of the general public opinion. Before analysing MPs' perceptions, we look at opinion differences among the electorate. We test whether the preferences of the poorer half of citizens differ significantly from those of the richer half. The answer is positive for seventeen out of the forty policy proposals (42.5 per cent).[10] These proposals – and the support within each income group – are shown in Table 1. It is unsurprising, given our focus on differences between income groups, that socio-economic statements with a direct link to income such as 'income and wealth should be redistributed in favour of poorer people' (Germany) generate quite large differences. But there are differences for other types of proposals too. For example, poorer people are less supportive of EU integration (a socio-cultural issue) in Germany and Wallonia. Overall, there are more differences in Germany (10 out of 16 proposals) and Wallonia (five out of eight proposals) than in Canada (two out of eight proposals) or Flanders, where no differences between income groups are observed among these eight proposals. It is hard to say whether these are actual country differences, or whether this is a consequence of the specific selection of policy proposals. This should not matter to the results, though. Our interest lies in focusing on those proposals where the preferences of the two income groups *do* differ, to test whether the preferences weigh equally on politicians' estimates.

Knowing on what issues poor and rich citizens differ, we turn to politicians' perceptions of public opinion. For the analyses, we only keep the estimates that politicians made about the policy proposals on which there are significant opinion differences and drop all other estimates (hence, the Flemish respondents are dropped from this analysis entirely) (but see Supporting Information Appendix 4 for the analysis including all proposals). This leaves us with 1,329 single estimates made by the German, Canadian and Walloon respondents (see Supporting information Appendix 7 for an overview of the N). As explained in the methods section, our dataset is stacked, meaning that each estimate is included twice to calculate the absolute difference between politicians' perceptions and the opinions of the poor and rich citizens, respectively. So, the dependent variable is the absolute distance between each estimate and the actual level of agreement among an income group.

Descriptive statistics show that, across policy proposals, politicians' estimates are a bit further off the opinions of the poor (19.18 percentage points) than the opinions of the rich (18.52 percentage points). The difference is smaller than one percentage point, however, which seems negligible, especially when considering the size of the inaccuracy in general (± 19 percentage points). Considering that the support for a policy proposal, by rich and poor citizens, often does not even differ that much (see Table 1), what is most striking about these results is how far politicians' estimates are from citizens' opinions *in general*.

Table 1. Proposals on which poorer and richer citizens have significantly different opinions

Country	Proposal	Support among the poorer half (in %)	Support among the richer half (in %)	Difference in support (in % points)
Canada	The government should provide a guaranteed annual income. (soc-ec)	82	70	**12**
	The retirement age to receive Canada Pension Plan benefits should be raised to 70. (soc-ec)	15	19	**5**
Germany	Income and wealth should be redistributed in favour of poorer people. (soc-ec)	79	62	**17**
	Citizens with higher incomes should be taxed more heavily than today. (soc-ec)	84	71	**13**
	There should be an 'opt-out' system for organ donations. Everyone who does not decline explicitly would be organ donor.	56	67	**10**
	Activities with high CO2 emissions such as air travel should be taxed more heavily.	68	58	**9**
	If equally qualified women should be privileged on the labour market.	42	34	**8**
	Video surveillance in public spaces should be expanded.	73	81	**8**
	The electoral age should be lowered to 16 years for federal elections.	25	18	**7**
	There should be more driving restrictions in cities suffering from air pollution.	51	44	**7**
	The co-operation between EU member states should be strengthened.	78	84	**6**
	The retirement age should be raised step by step. (soc-ec)	14	19	**5**
Wallonia	National armies should be replaced by one European army.	44	53	**9**
	Voting should remain compulsory.	52	60	**8**
	The full income of all parliamentarians should be published yearly.	83	88	**5**
	Belgium should never expel someone to a country where human rights are violated.	65	69	**4**
	The retirement age may not exceed 67 years. (soc-ec)	82	85	**3**

Note: Proposals are ordered within countries, from the proposal with the largest substantive difference between rich and poor (in percentage points) to the proposal with the smallest substantive difference. Socio-economic proposals are marked with (soc-ec).

An interesting finding emerges, however, when distinguishing between economic and non-economic proposals. Focusing on socio-economic policy proposals only, we find that politicians' estimates are about 4 percentage points further away from the opinions of poor citizens (23.11 percentage points) compared to those of rich citizens (19.47 percentage points). This difference is significant ($t = 2.71$; $p < 0.01$). Such a disparity does not exist when examining non-economic

Table 2. Multilevel analysis explaining the absolute distance between a politician's estimate of public opinion and the actual opinion of an income group

	Model 1		Model 2		Model 3	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
Rich citizens (vs. poor)	−0.66	(0.55)	0.77	(0.66)	0.77	(0.66)
Socio-economic issue	—		0.92	(2.92)	0.93	(2.92)
Rich citizens * socio-ec. issue	—		−4.41***	(1.16)	−4.38***	(1.17)
Gender	—		—		0.04	(0.94)
Seniority	—		—		−0.05	(0.05)
Left–right	—		—		0.46*	(0.21)
Country fixed effects	Yes		Yes		Yes	
Constant	16.85***	(2.19)	16.40***	(2.27)	113.00	(110.01)
N	2,658		2,658		2,654[a]	
N (proposals)	17		17		17	
N (politicians)	314		314		313	
Log likelihood	−10957.98		−10950.74		−10931.77	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

The models account for the interdependence of observations at the level of politicians and policy proposals (crossed random effects) and countries (fixed effects).

[a]The lower N here is due to an MP who is 'independent' and cannot be placed on a left–right scale using party scores.

proposals (socio-cultural and other). Contrary to our expectation, politicians' estimates on non-economic issues are even slightly (one percentage point) closer to the opinions of poor citizens (17.30 percentage points) than to those of the rich (18.07 percentage points).

These descriptive statistics give us a good first indication, but our more formal estimation strategy needs to account for the complex structure of our dataset using multilevel models. The standard errors of these models account for the interdependence of observations at the level of politicians and policy proposals (crossed random effects) and countries (fixed effects). Recall that the dataset is stacked and that every estimate (by politician X, about policy proposal Y) is included twice: once to calculate the absolute distance from the opinions of poor citizens and once to calculate the absolute distance from the opinions of rich citizens. This stacking results in a total of 2,658 observations. Our goal is to test whether the absolute distance is larger for the poor – which we do by including the dummy variable 'Rich citizens (vs. poor)'. Several models are reported in Table 2: Model 1 includes the main effect (rich vs. poor) only, Model 2 contains the interaction effect with 'socio-economic issues' and in Model 3 we include some additional control variables at the politician level (gender, seniority and left–right position of the party). We discuss our findings based on the predicted values from Model 3, which are displayed in Figure 1.

The regression analysis confirms our descriptive findings: H1 is rejected and H3 is confirmed. Politicians' perceptions of the general public opinion are not statistically significantly closer to the actual opinions of the richer half of the citizens than to those of the poorer half of the citizens when we consider all issues (H1). On socio-economic issues, politicians perceive public opinion closer to the opinion of the rich (H3). Predictions from Model 3 (see Figure 1)[11] show that politicians'

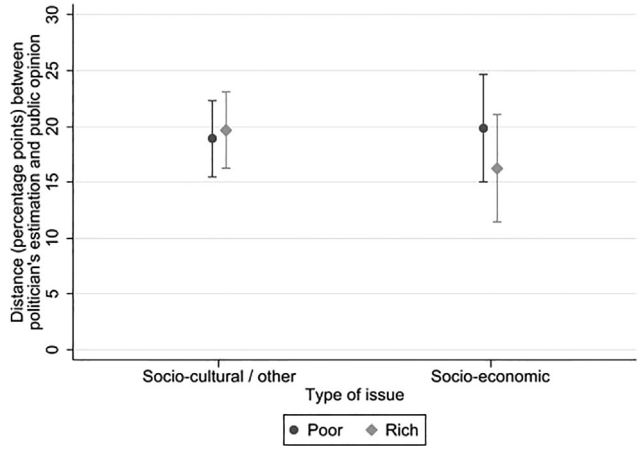

Figure 1. Inequality in general public opinion estimates. Predicted values from Table 2, Model 3 (95% confidence intervals)

estimates, for socio-economic issues, are 4 percentage points closer to the actual opinions of the rich – a difference that is statistically significant.

These results are not driven by one specific country: they hold whenever we drop one country from the analysis. Moreover, the findings do not depend on peculiarities related to our measurement of household income. As is reported in Supporting Information Appendix 5, we obtain very similar findings when using an alternative indicator of socio-economic status: self-reported social class.

We now turn to the analysis of politicians' perceptions of their party voters' opinions. First, we identify for which proposals and party electorates there are significant differences between the opinions of poorer and richer citizens. In our dataset, out of the 366 electorate*proposal dyads, we find that in 55 cases (15 per cent) there are significant differences in opinions between the two income halves of a party electorate.[12] We find these cases in all countries, with a higher number of cases observed in Switzerland (Canada: 4; Flanders: 8; Germany: 9; Switzerland: 28; Wallonia: 6). Sometimes, several parties are divided over the same proposal (e.g., the Swiss proposal that 'taxes on high-income should be raised while taxes on low-income should be reduced' separates the income groups from six different parties). For other statements, only one political party experiences opinion differences among its members (e.g., only in one party in Flanders do the poor and the rich hold significantly different opinions on the proposal to 'forbid the most polluting cars in cities').

We focus on the proposals[13] where significant opinion differences exist within party electorates and analyse the politicians' perceptions of their party voters' preferences. Our analysis is based on a total of 1,176 estimates provided by politicians for statements on which their party electorate (lower-income vs. higher-income) is divided. Descriptive statistics reveal that the average estimate of a politician is far away, on average about 22 percentage points, from the actual preferences of any group, rich or poor. Regarding representational inequality, the pattern is similar but more pronounced than the one for general public opinion. Across all proposals, politicians' estimates are, on average, approximately 5 percentage points closer to the preferences of the richer half of their electorate (19.85 percentage points distance) than to the preferences of the poorer half (24.47 percentage points distance). This difference is driven by socio-economic proposals, where politicians' estimates are 11 percentage points closer to the preferences of the richer part of

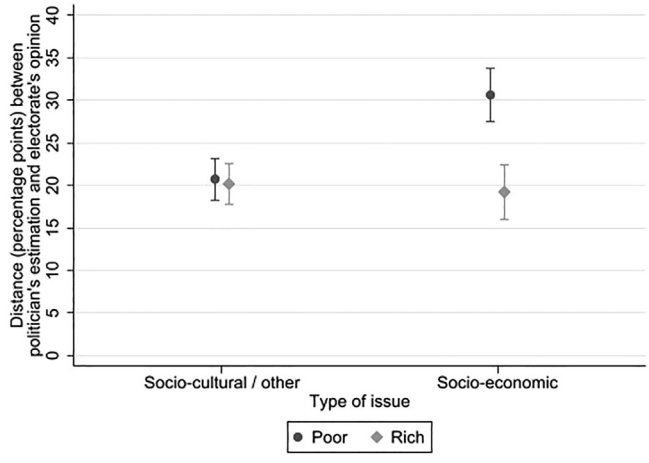

Figure 2. Inequality in estimates of partisan electorate opinion. Predicted values from Model 6, Table 3 (95% confidence intervals)

the electorate (21.58 percentage points distance) than to those of the poor (32.99 percentage points distance). By contrast, for socio-cultural and other proposals, the difference remains below one percentage point (poor: 19.33 percentage points difference; rich: 18.80 percentage points difference).

These patterns are confirmed by the multilevel regression analysis. The models account for the interdependence of observations at the level of politicians and electorate-policy proposal combinations (crossed random effects) and countries (fixed effects). The results of the different models presented in Table 3 provide further evidence for H3. Politicians' perceptions of their party voters' opinions are substantively closer to the preferences of higher-income partisans than to those of lower-income partisans (Table 3, Model 4). Politicians' estimates on socio-economic issues (Table 3, Model 5) drive this finding. In contrast, for socio-cultural and other issues, the difference is negligible. The inclusion of control variables does not change the result (Table 3, Model 6). The predicted values from Model 6 are shown in Figure 2. The figure shows that politicians' estimates of their party electorate on economic issues are much closer (roughly 10 percentage points) to the policy positions of their higher-income partisans than to those of their lower-income partisans.

Our fourth hypothesis posits that the impact of policy issues on perceptual biases may differ between right-wing and left-wing politicians. Specifically, we hypothesised that the difference between economic and non-economic issues would be greater among right-wing politicians. To test this hypothesis, we included a three-way interaction in our modelling strategy (Table 3, Model 7). Following conventional levels of significance, our data provides support for our fourth hypothesis. We present the predicted values from the model to illustrate the nature of the relationships (Figure 3).

The figure reveals that the association between policy issues and perceptual biases varies depending on the ideology of politicians. Although left-wing politicians' perceptions are more biased towards richer party voters on socio-economic issues than on non-economic issues, the difference is small (left-hand panel). The difference is much more substantial for right-wing politicians. Their perceptions show a large bias towards affluent party voters on socio-economic issues compared to other issues (right-hand panel).

Table 3. Multilevel analysis explaining the absolute distance between a politician's estimate of the party electorate and the actual opinion of an income group of the party electorate

	Model 4		Model 5		Model 6		Model 7	
	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)	Coef.	(S.E.)
Rich citizens (vs. poor)	**−4.62*****	**(0.56)**	−0.53	(0.69)	−0.53	(0.69)	−2.63	(1.66)
Socio−economic issue	—		12.06***	(2.25)	9.92***	(2.07)	−3.35	(5.58)
Rich citizens * Socio-ec. issue	—		**−10.88*****	**(1.12)**	−10.88***	(1.12)	−0.09	(3.47)
Gender	—		—		0.62	(1.05)	0.60	(1.05)
Seniority	—		—		−0.02	(0.06)	−0.02	(0.06)
Left–right	—		—		1.71***	(0.45)	1.00	(0.56)
Rich citizens * Left–right	—		—		—		0.48	(0.35)
Socio-ec. issue * Left–right	—		—		—		2.28*	(0.91)
Rich citizens * Socio-ec. issue * Left–right	—		—		—		**−1.82****	**(0.57)**
Country fixed effects	Yes		Yes		Yes		Yes	
Constant	20.27***	(3.04)	17.05***	(2.83)	7.53	(134.23)	48.13	(120.05)
N	2,352		2,352		2,352		2,352	
N (proposal-party)	52		52		52		52	
N (politicians)	634		634		634		634	
Log likelihood	−9807.03		−9757.20		−9751.06		−9744.47	

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$

The models account for the interdependence of observations at the level of politicians and electorate-policy proposal combinations (crossed random effects) and countries (fixed effects).

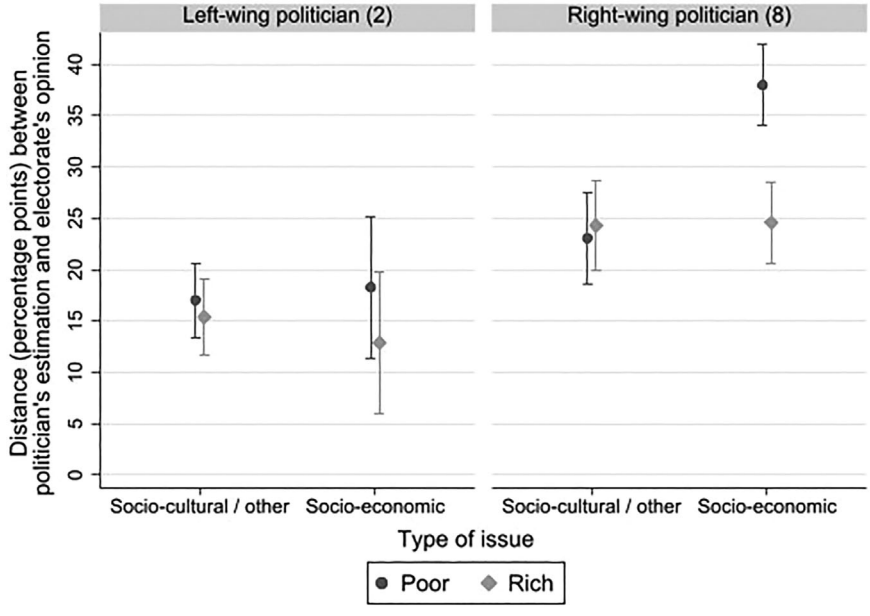

Figure 3. Inequality in estimates of partisan electorate opinion, by left–right placement of politician. Predicted values from Model 7, Table 3 (95% confidence intervals)

Overall, perceptual biases are predominantly driven by right-wing politicians on economic issues. Indeed, whereas left-wing politicians' estimates on economic issues are 'only' 5 percentage points further from the preferences of poor voters compared to rich voters, this gap rises to 13 percentage points for right-wing politicians. Therefore, our findings confirm the hypothesis that perceptual biases towards richer voters are more pronounced for economic issues, particularly among right-wing politicians.

Robustness tests confirm that all substantive conclusions remain consistent even when we drop a country from the analysis. Moreover, when we replicate the analyses using self-reported social class as an indicator of socio-economic status – instead of income – the results are substantively similar (see Supporting Information Appendix 5).

Before moving on to a discussion of our main conclusions, we would like to address three final concerns. First, it is important to acknowledge that there is unavoidable uncertainty around our estimates of citizens' preferences. We believe this does not threaten our main findings, though. By focusing only on proposals for which the preferences of the low- and high-income groups differ significantly, we (at least partly) account for the uncertainty. That is, when our estimates are based on smaller groups (e.g., income groups within partisan electorates), preference gaps must be large and/or the uncertainty around the estimates small; else the policy proposal is not included in the main analysis. Supporting Information Appendix 8 reports additional robustness checks showing that the results hold when excluding the estimates based on smaller sample sizes. Second, one may wonder whether the results could be driven by lower-income citizens less frequently expressing an opinion than higher-income citizens. If poorer citizens were more often 'undecided' about the policy proposals, then the groups *having* an opinion would no longer be of equal size, and it would make sense for politicians' estimates to be closer to richer citizens' preferences. This

is not the case, though. Lower-income voters generally tend to express their opinions on socio-economic issues (especially on redistribution), and this is true in our data as well – in three out of four countries[14] there is no relationship between income and the number of undecided citizens on socio-economic issues. Finally, our empirical analysis focused on error size, irrespective of its direction (absolute distances). To give more insight into the direction of the error, Supporting Information Appendix 9 plots the average estimate of a politician per proposal (and for party electorate estimates, split up by party) against the actual support among the poorer and richer half, respectively. As implied in the paper (but so far not explicated), politicians' estimates on socio-economic proposals typically diverge from citizens' actual preferences in a conservative (right-wing) direction—as such being closer to the preferences of higher-income citizens (who are also more conservative) than to those of lower-income citizens. The graphs also show that there are proposals where a majority of poorer citizens supports a proposal while a majority of the rich opposes it (or vice versa). This is when skewed perceptions are probably most consequential: if politicians act upon their public opinion perceptions and apply a majoritarian logic (i.e., do what they think a majority of the citizens want), they act against what the majority of a group wants. Zooming in on those cases (in Supporting Information Appendix 10), we show that politicians' estimates more frequently align (according to the majority logic) with rich people's preferences than with those of poor people, in particular when it comes to socio-economic proposals.

Conclusion

An often-heard claim in comparative research is that lower-income citizens are less represented in policymaking because politicians' opinions are less in line with their opinions than with those of higher-income citizens. Expanding upon these findings, this paper explores a second possible cause of unequal representation, namely politicians' biased perceptions of public opinion. Drawing on survey evidence from politicians and citizens in four countries, our study shows that – whenever there is a significant preference gap between lower- and higher-income groups – politicians' perceptions of what citizens want are skewed towards the preferences of higher-income voters on socio-economic issues. This perceptual bias is present in politicians' perceptions of the general public's opinions and of their partisan electorate. Moreover, politicians from right-wing parties, who face a cross-pressured electorate, seem to have more biased perceptions than their left-wing colleagues when it comes to estimating the economic preferences of their own party voters. These findings are robust across different countries and across two indicators of socio-economic status – income and self-reported social class.

These perceptual biases are one of the causes of inequality in substantive representation. While we do not offer direct evidence that perceptual biases actually lead to unequal policymaking, extant research demonstrates the impact of politicians' perceptions on their decision making (Warren & Stokes, 1963). Politicians are generally reluctant to oppose the public – and especially to go against the preferences of their own party electorate, which is the primary representational focus of politicians in many countries (Dudzinska et al., 2014). Hence, politicians' perceptual biases on socio-economic issues may be one important cause of the underrepresentation of lower-income voters. Politicians underestimate the level of support for redistributive policies among their voters, and it is hard to imagine that this would not affect their propensity to pursue such policies.

This discrepancy raises important normative concerns as individuals appear not to be treated as political equals in democratic societies (Dahl, 2006). Moreover, the fact that politicians'

perceptions are skewed in particular on socio-economic issues, implies a potential feedback loop that can further increase economic inequalities (Bartels, 2008, p. 236). Indeed, since poorer citizens are misperceived by policymakers on economic issues, policies may not respond adequately to the interests of disadvantaged citizens on economic redistribution, which in turn produces greater economic inequalities and, ultimately, greater perceptual biases and political inequalities.

Our findings suggest that one possible way to alleviate inequality in political representation would be to raise awareness among politicians about the preferences of lower-income citizens. To be clear, correct perceptions may not be sufficient – for example, even if right-wing politicians realise the support for redistribution among their electorate, they may still oppose it out of ideological reasons (Breunig & Loewen, 2021) – but they are a prerequisite for establishing a more equal policymaking process. They seem crucial in a context where politicians' opinions often align more closely with those of richer voters and where politicians disproportionately come from affluent social backgrounds.

Besides its implications for inequality in substantive representation, our results also have important implications for the broader functioning of democratic representation. Indeed, while political representatives are not expected to always follow public opinion when making decisions, they should at least know it and consider it (Pitkin, 1967, p. 162), as this understanding is important for providing justifications when diverging from citizens' preferences and for fostering a feeling of representation among the electorate. The biases documented in this analysis can contribute to the increasing feeling some voters have of being excluded from the political process.

To the best of our knowledge, our study is the first large-scale investigation into the relationship between perceptual inaccuracy (see e.g., Broockman & Skovron, 2018; Walgrave et al., 2023) and representational inequality (e.g., Lupu & Warner, 2022) – two important areas within the field of political science. We surveyed 866 members of parliament in four countries, measured their perceptual accuracy across different policy issues, and, relying on a well-thought-out measurement instrument, demonstrated inequality in these perceptions. We see at least three opportunities for an extension of our analysis. First, some inequality scholars take a special interest in the significance of middle-class voters (see e.g., Elkjær & Iversen, 2023). We opted for an approach that lent itself best to a binary classification (lower-income vs. higher-income) – and that we thought made the most sense for a first, systematic study on this topic – but obviously other approaches are worth exploring. Second, future work could further explore policy issue-differences by enlarging the set of policy proposals studied. Because the preferences of low- and high-income groups often do not differ significantly (see also Branham et al., 2017) our analysis was ultimately based on a limited set of proposals. A strategy could be to make politicians estimate public opinion only for proposals where the preferences of income groups differ. Finally, it would be interesting to scrutinise the causes of biased perceptions. In our theory section, we speculated about possible causes (e.g., unequal participation, skewed incentives and a lack of descriptive representation), but it is beyond the scope of this paper to empirically measure these causes and link them to perceptual bias.

Three more limitations deserve attention. First, the four countries we studied are Western democracies with similar and low levels of inequality (representing a least-likely case selection) and hence the country variation only served as a robustness test of our results. More data is needed for a true country comparison. Second, while our citizen samples were sufficient for the purposes of the article, it would have been helpful to have larger samples to also detect smaller preference differences between rich and poor citizens. We advise scholars with an interest in the opinions of societal subgroups to work with larger samples than commonly used. Finally,

we gauged politicians' estimates of the entire public (or electorate), rather than their estimates of lower-income and higher-income voters separately. It would be interesting to see if they can accurately estimate the preferences of low-income citizens if specifically asked to. This would provide insights into whether poor people's preferences are truly misperceived or if they are perceived correctly, but then undervalued in politicians' aggregate estimations.

Acknowledgements

The data were collected in the framework of the POLPOP project. POLPOP is a transnational collaboration examining the perceptual accuracy of politicians in five countries, initiated by Stefaan Walgrave. The Principal Investigators [+ funders] per country responsible for data collection were, for Flanders-Belgium: Stefaan Walgrave [FWO, grant number G012517N]; Wallonia and Brussels-Belgium: Jean-Benoit Pilet and Nathalie Brack [FNRS, grant number T.0182.18]; Canada: Peter Loewen and Lior Sheffer [supported by a Social Sciences and Humanities Research Council of Canada Insight Grant and by the Dean of the Faculty of Arts & Science at the University of Toronto]; Germany: Christian Breunig and Stefanie Bailer [funded by AFF 2018 at the University of Konstanz]; the Netherlands: Rens Vliegenthart and Toni van der Meer; and Switzerland: Frédéric Varone and Luzia Helfer [SNSF, grant number 100017_172559]. Note that the Dutch data were excluded from the analysis because of the non-representativeness of the citizen data.

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Data Availability Statement

Replication files are available on the Harvard Dataverse (https://doi.org/10.7910/DVN/SN5LIO).

Ethics Statement

The study was conducted in compliance with relevant laws. In Belgium, we first obtained ethical approval from the Ethische Adviescommisse Sociale en Humane Wetenschappen of the University of Antwerp (Flanders, Belgium) on 10 Feb 2017, and then ethical clearance from the Comission éthique de la Faculté de Philosophie et sciences sociales de l'ULB (Wallonia) in March 2018. In Canada, we obtained ethical approval from the University of Toronto's Social Sciences, Humanities & Education REB on 27 Nov 2018. In Switzerland, we obtained ethical approval from the Ethics Commission of the Geneva School of Social Sciences (University of Geneva) on 16 April 2018. In Germany, the Ethics Committee (IRB) of the University of Konstanz judged that approval by the IRB or any regulatory body was not required for this project (but note that the university more generally enforces the proper adherence to ethics guidelines).

Online Appendix

Additional supporting information may be found in the Online Appendix section at the end of the article:

Online Appendix

Notes

1. We use the terms 'less affluent', 'lower-income' and 'poorer' citizens as synonyms, without intending to imply any pejorative undertones.
2. Our hypotheses were not pre-registered, but we developed each hypothesis prior to testing it empirically.
3. See the Supporting Income Appendix 3 for a justification of why Flanders and Wallonia are analysed separately.
4. Citizens in Switzerland rated nine policies; in all other countries, they rated eight. Moreover, Switzerland and Germany used two batches of policy proposals (with citizens and politicians rating one out of two) while all other countries used one.
5. Note however that our research design does not require perfect equivalence (as we are not interested in country differences).
6. Socio-economic proposals are issues related to redistribution and taxation, labour conditions or the economy more generally, that have a clear left–right dimension. Socio-cultural proposals deal with issues like the environment, immigration, law and order, European integration and equality and they have a left–right dimension too. The third category contains, for example, proposals about the functioning of democracy, about ethical issues, or proposals that lack a clear left–right dimension.
7. We included regional politicians from federal systems (Belgium, Canada, Switzerland) where the regional parliaments have substantial competencies and are professional just like the national ones. Hence we do not see reasons to expect meaningful differences between federal and regional politicians. Our selection of policy proposals contains both federal and regional competencies. Note that we did *not* include any local (provincial/city/municipality) politicians.
8. Income was measured as a categorical variable. Hence, support for a proposal, among respondents of one half, is calculated by taking the weighted average of support among the income categories that make up the half. For a similar procedure, see Schakel and van der Pas (2021).
9. Concretely we test whether the z-tests for the difference of two proportions are significant at the $\alpha = 0.10$ level.
10. Switzerland is excluded here because Swiss politicians did not estimate the general public opinion.
11. Predicted values are calculated while keeping all the other variables in the models at their respective means – idem for Figures 2 and 3 below.
12. Again, we test whether z-tests for the differences of proportions are significant at the $\alpha = 0.10$ level.
13. In our final analyses, the number of electorate*policy proposal combinations is 52 (and not 55) because three proposals were not rated by any politician from the respective political parties.
14. In Belgium there is a relationship, but the differences are too small to be a real driver of our results.

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