

# The Indirect Effect of Electoral Rules on Citizens' Satisfaction with Democracy: A Comparative Study

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## Funding information

National Research, Development and Innovation Office Grant nr. FK131569, Incubator Collaborative Research Projects Fund, Centre for Social Sciences, Budapest. The author is a recipient of the Bolyai János Research Scholarship (Hungarian Academy of Sciences).

## Abstract

The aim of this study is to understand how electoral rules affect citizens' satisfaction with democracy. The focus is on the extent to which this effect is mediated by the constituency orientation of legislators and the proportionality of election results. The analysis combines data from the European Social Survey and the Comparative Candidates Survey and covers 24 elections from 14 European countries. The multilevel SEM suggests two results. On the one hand, what majority and some mixed-member electoral systems gain through increasing constituency orientation, they lose to disproportional election results. On the other hand, open and flexible lists perform better in increasing satisfaction than closed ballots. Importantly, the analysis reveals a winner-loser gap in how constituency representation and proportionality affect democratic satisfaction. Both are more important for the losers of the elections when they evaluate democratic performance.

## Zusammenfassung

Die vorliegende Studie untersucht den Zusammenhang zwischen Wahlgesetzen und Demokratiezufriedenheit der Bevölkerung. Im Fokus der Analyse stehen potentielle Wechselwirkungen zwischen der Wahlkreisorientierung der Abgeordneten und dem Proportionalitätsgehalt von Wahlergebnissen. Es wird erwartet, dass die Demokratiezufriedenheit steigt, wenn mehrere

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alternative Kandidaten unter den Bedingungen proportionaler Repräsentation zur Auswahl stehen. Für die empirische Analyse werden Daten aus dem European Social Survey und dem Comparative Candidates Survey für 24 Wahlen in 14 europäischen Ländern verknüpft. Das Mehr-Ebenen-Strukturgleichungsmodell zeigt zwei Ergebnisse. Erstens wird höhere Zufriedenheit, die mit einer erhöhten Wahlkreisorientierung unter den Bedingungen eines Mehrheits- oder personalisierten Verhältniswahlrechts einhergeht, als Folge der Disproportionalität des Wahlausgangs eingebüßt. Zweitens fördern offene und flexible Varianten einer Listenwahl die Demokratiezufriedenheit eher als geschlossene Parteilisten. Bei der Beurteilung der Demokratie im jeweiligen Land spielen Repräsentation und Responsivität allerdings eine wichtigere Rolle für die Unterstützer von Wahlverlierern.

### Résumé

L'objectif de cette étude est de comprendre comment les règles électorales affectent la satisfaction des citoyens à l'égard de la démocratie. Au lieu d'étudier uniquement l'effet direct, l'accent est mis sur la mesure dans laquelle l'effet est médiatisé par l'orientation électorale des législateurs et la proportionnalité des résultats électoraux. Il est théorisé que les citoyens apprécient le lien entre ces deux variables: la satisfaction est plus grande lorsque les citoyens peuvent choisir entre les candidats, et sous la représentation proportionnelle. L'analyse combine les données de l'Enquête Sociale Européenne et du Comparative Candidates Survey et couvre 24 élections de 14 pays européens. Les résultats des SEM multiniveaux suggèrent, d'une part, que ce que les systèmes électoraux majoritaires et mixtes gagnent en termes de la satisfaction citoyenne par l'orientation électorale, ils le perdent à cause des résultats électoraux disproportionnés. En revanche, les listes ouvertes et flexibles sont plus efficaces pour accroître la satisfaction citoyenne que les listes fermées. Surtout, l'analyse révèle un écart gagnant-perdant dans la manière dont la représentation des électeurs et la proportionnalité affectent la satisfaction démocratique. Le

lien entre les deux est plus importants pour les perdants des élections surtout lorsqu'ils évaluent la performance démocratique.

#### KEYWORDS

constituency representation, electoral rules, GSEM, proportionality, satisfaction with democracy

## INTRODUCTION

Although *satisfaction with democracy* (SWD) is sometimes used in the study of support for incumbent authorities and the political system, of the evaluation of government performance (Canache et al., 2001), the discrepancy between democratic norms and the outputs of the political system (Curini et al., 2012), and of attitudes towards policy outputs (Grönlund & Setälä, 2007), *it is most widely considered an indicator of evaluating democratic performance* (Norris, 1999). Irrespective of what citizens may think democracy is, low levels of democratic satisfaction are a sign of its weakening legitimacy (Anderson et al., 2005). To manage the behavioural consequences of dissatisfaction (André & Depauw, 2017; Grönlund & Setälä, 2007) we must understand the contributing factors and mechanisms. In the focus of this article are electoral rules, and their effects on democratic satisfaction.

The effects of electoral rules are overarching. They determine key political system characteristics such as the number of parties, the structure and stability of governments, and how accurately political opinions are represented in the legislature. Arguably, some electoral rules perform better in creating a link between citizens and legislators. Others produce more proportional election results. If these implications are important to citizens, then we can expect that electoral rules contribute to explaining differences between countries in the levels of SWD. For example, in electoral systems with a stronger link between legislators and citizens people may feel more represented, and therefore be more satisfied with democracy. Importantly, it is not realistic to assume that electoral rules *directly* affect SWD. Hence, if we wish to understand electoral system effects, we have to look at mediation mechanisms. This study focuses on the *indirect effects* of electoral rules on SWD through two routes of mediation: (1) the legislators' constituency orientation, and (2) the proportionality of election results.

Relevantly, electoral rules play a role in how we see representative democracy, what is expected of representatives, and how their performance is evaluated. In candidate centred electoral systems, where voters have the opportunity to not only choose between parties but candidates too, the legislators' performance is assessed along the lines of what they do in office, and how well they represent the interests of their constituencies. Re-election seekers are motivated to advertise their achievements to make sure voters are informed about their efforts. Thus, the electoral connection between citizens and legislators is more prevalent in electoral systems where legislators do not come in 'package' with the party but may be individually held accountable. This study argues that in such countries heavier constituency orientation translates into higher levels of citizens' SWD.

When studying the effect of electoral rules one cannot neglect the proportionality of election results. Especially so, because constituency orientation and proportionality may often be developed only at each other's expense: electoral rules promoting constituency orientation often perform worse along the proportionality dimension. The relationship between proportionality and democratic satisfaction has already been advanced in the scholarship (see for instance Blais et al., 2017; Plescia et al., 2020). Under proportional representation (PR), the perceived justness of the system and the representation of minority opinion borrows citizens a feeling of representation. Contrarily, in majority systems, due to the disproportional distribution of legislative

mandates, losers and minorities may not be represented according to their weight in society, which depresses their satisfaction.

Although a great many studies investigate SWD, surprisingly there is only limited – although influential – effort to empirically connect the various aspects of electoral systems and democratic satisfaction. Farrell and McAllister (2006) argue that by ‘offering greater choice’ to voters a preferential vote increases citizens’ SWD. Aarts and Thomassen (2008) find that, although to a lesser degree than that of the representation function of PR, the accountability function of the elections in majority systems increases satisfaction. Similarly, Norris (2000) argues that the clear choices that majority systems offer generates greater satisfaction than PR. Using a nuanced operationalisation of personalised politics, Renwick and Pilet (2016) find no evidence of an increasing SWD after adopting more personalised electoral rules. Although their data may not be entirely suitable to discern the connection between electoral system change and SWD (as the authors themselves acknowledge), they take an important step forward in the study of electoral system effects.

Building on the literature of the so-called winner-loser gap, the paper further argues that the citizens’ political preferences affect how they evaluate the importance of constituency orientation and proportionality. It is theorized that both constituency orientation and the proportionality of election results are more important to citizens *not* voting for government parties. While constituency representation makes sure that the interests of the constituency are looked after irrespective of the winner's party affiliation, proportionality ensures that losers may also have enough power to influence public policy.

The analysis combines data from the European Social Survey and the Comparative Candidates Survey and covers 24 elections from 14 European countries. The multilevel structural equation model (SEM) suggests two results. On the one hand, what majority and some mixed-member electoral systems gain through increasing constituency orientation, they lose to disproportional election results. On the other hand, open and flexible lists perform better in increasing satisfaction than closed ballots. Importantly, the analysis reveals a winner-loser gap in how constituency representation and proportionality affect democratic satisfaction. As expected, both implications have more weight for how the losers of the elections evaluate democratic performance.

## FROM ELECTORAL RULES TO SATISFACTION WITH DEMOCRACY

The literature on SWD is vast, and demonstrates the effect of winning the elections (Bernauer & Vatter, 2012; Blais et al., 2017; Curini et al., 2012; Singh, 2014), the margin of victory (Howell & Justwan, 2013), government effectiveness (S. Dahlberg & Holmberg, 2014), ideological congruence with the government (Kim, 2009), the rule of law and corruption (Wagner et al., 2009), scandal elections (Kumlin & Esaiasson, 2012), the quality of social protection (Lühiste, 2014), congruence between the policy priorities of citizens and political elites (Reher, 2015), citizen evaluation of the public administration (Ariely, 2013), how governments solve collective action problems (Halla et al., 2013), the consumption of online news (Ceron & Memoli, 2016), income inequality (Kang, 2015), economic performance and procedural fairness (Magalhães, 2016), and the quality of formal institutions (Wagner et al., 2009).

### The MP-voter linkage and satisfaction with democracy

First, this study looks at the association between electoral rules and SWD as mediated by legislators’ constituency orientation. Why, however, does it make sense to look at the linkage

between voters and legislators as a mediator? Several decades of research demonstrate that electoral rules affect the extent to which legislators see a benefit in establishing a link between them and citizens. The consensus in the literature is that in electoral systems where voters choose between candidates and not parties, representatives are more responsive to the demands and interests of the constituents. Contrarily, in party-centred electoral systems, legislators place the interests of the party in front of constituency interests (Carey & Shugart, 1995; Curtice & Shively, 2009; Gallagher & Holliday, 2003; Heitshusen et al., 2005; Morgenstern & Swindle, 2005; Norris, 2004).

It is often argued that open-list PR offers the greatest incentives for personal representation. In these systems, legislators do not only compete with candidates of other parties. In addition, considerable intra-party competition encourages them to rely on their personal work in the constituency (Carey & Shugart, 1995; Curtice & Shively, 2009; Gallagher & Holliday, 2003; Heitshusen et al., 2005; Morgenstern & Swindle, 2005). Similarly, flexible list candidates have also been shown to pursue preference votes. Although preference votes do not seem to directly increase re-election chances, the tendency of parties to improve the successful candidates' list positions at the next election makes personal vote-seeking improve long-term election prospects (André et al., 2017). This creates an incentive to personalisation and constituency work. The connection between personalised electoral systems and legislator behaviour seems even more important in light of the clear trend of electoral system personalisation in Europe since the 1980s (Renwick & Pilet, 2016). It seems especially reasonable to highlight the individual candidates and legislators since trust in political institutions, such as parties and governments, appears to be in worldwide decline (Algan et al., 2017; Ceka, 2013; Citrin & Stoker, 2018).

Amongst the most party-centred electoral rules we find PR with closed party lists. Here, the legislators' real principal is not the citizen but the party. Re-election entirely rests upon the candidates' position on the party lists, which is often determined by the party centre. Thus, legislators wishing to secure re-election by climbing higher on party lists have to do well by the party. Under such electoral rules, legislators are more likely to engage in party-centred activities than to seek out the personal vote. Single member districts (SMD) are a curious case of candidate- and party-centeredness. Here, voters choose between candidates and the link between constituency and legislator is the strongest, but still the context is often party-centred. As every party nominates only one candidate per district, the choice between candidates is also a choice between parties. Nevertheless, precisely because the party vote is inseparable from the candidate vote, parties are invested in promoting personalisation and constituency orientation in the SMDs.

The literature cited above demonstrates that electoral rules matter in explaining legislator behaviour. Now, the question remains: does legislator behaviour affect citizen actions and evaluative attitudes? The short answer of the scholarship is: yes. Voters have been shown to reward bill initiation in the US (Box-Steffensmeier et al., 2003), in the UK (Bowler, 2010), and in Belgium (Däubler et al., 2016); general parliamentary activities in the Czech Republic (Däubler et al., 2018), and in France (François & Navarro, 2019); parliamentary dissent as a valence signal in the UK (Campbell et al., 2019); and constituency oriented parliamentary questions in Romania (Chiru, 2018). Furthermore, in a study explaining the trust in politicians in three countries (US, UK and Denmark), Bøggild (2020) demonstrates that voters prefer that politicians follow constituency interests over party policy.

In a political system where legislators advertise themselves as reliable, are responsive and promote the interests of the constituency, citizens may find it easier to connect with their representatives. If voters feel that constituency interests are taken seriously they may see such a system that encourages these interests in a more positive light. Conversely, in a democracy that does not provide incentives for constituency representation, citizens may feel neglected in their everyday needs. As a consequence, it is expected that citizens' SWD is higher in electoral

systems promoting a stronger MP-voter linkage. In this paper, electoral system personalisation is conceptualised as the voters' opportunity to choose between candidates (Farrell & Gallagher, 1998; Renwick & Pilet, 2016). In light of this, the first hypothesis of the study reads as follows.

**Hypothesis 1** *The effect of electoral rules on SWD mediates through the legislators' constituency orientation. In electoral systems in which citizens may choose between candidates, representation is more constituency oriented, which translates to higher levels of SWD.*

## Proportionality and satisfaction with democracy

When discussing the relationship between electoral rules and SWD, it is necessary to take into account the proportionality of election results. This is especially true because it is difficult to achieve high levels of constituency orientation and proportional election results at the same time. Some existing evidence suggests already that the representativeness of elections plays a crucial role in how citizens evaluate democracy. Analysing survey data from ten multi-ethnic post-communist countries, Ruiz-Rufino (2013) finds that the proportionality of election results increases the satisfaction of smaller minorities. Banducci and colleagues (1999) show that New Zealand's shift from first-past-the-post to PR causes a change towards more positive attitudes on some measures of efficacy and representativeness. Furthermore, Blais et al. (2017) and Berggren et al. (2004) show that citizens' SWD decreases if the parties' seat shares fall short of the vote share. Importantly, analysing comparative survey data, Aarts and Thomassen (2008) find that citizens' satisfaction depends primarily on the perception of its representation function. More recently, analysing data from four countries with substantially different electoral systems, Plescia and colleagues (2020) demonstrate that the proportionality of election results positively affects voter support for voting rules.

Under PR the perceived justness of the system and the representation of minority opinion provide a stronger link between citizens and the representative body. In majority systems with disproportional election results, on the other hand, losers and minorities are not represented according to their weight in society. This difference is expected to affect how citizens in different electoral systems evaluate democracy.

**Hypothesis 2** *The effect of electoral rules on SWD mediates through the proportionality of election results. Relative to majority electoral systems, PR creates more proportional election results, which translates into higher levels of SWD.*

## The winner-loser gap

One of the most important usual suspects in explaining SWD is citizens' sympathy for the government (Bernauer & Vatter, 2012; Blais & Gélinau, 2007; Blais et al., 2017; Curini et al., 2012; Singh, 2014). Government voters are systematically more satisfied with democracy than voters of the opposition. But does this so-called 'winner-loser gap' influence the extent of which the constituency orientation of legislators and the proportionality of election results affect democratic satisfaction?

First, I argue that constituency orientation is more important to losers than it is to winners. On the one hand, the perks of constituency orientation are not evenly distributed along the winner-loser divide. *Within* the constituency, clientelism and patronage advantage government sympathisers by securing them jobs in local institutions, in the local distribution of grants, or in winning local tenders. More significantly, the distribution of perks *between* constituencies

has a considerable negative effect on opposition districts. All over the world, incumbents influence the distribution of funding across districts to improve their chances for re-election (Cadot et al., 2006; Calvo & Murillo, 2004; Case, 2001; Castells & Solé-Ollé, 2005; M. Dahlberg & Johansson, 2002; John & Ward, 2001; Kneebone & McKenzie, 2001; Milligan & Smart, 2005).

On the other hand, although the allocation of funding causes between-district disparity, the benefits are not restricted to government supporters within the constituency. Pork barrel politics often target local development grants and infrastructure investments, the outputs of which are enjoyed by all district citizens irrespective of party affiliation. Furthermore, when carrying out casework legislators are unlikely to distinguish between citizens based on their party preferences. The electoral goal of casework is to stabilise one's base in the constituency, and being a 'good' representative to other parties' voters potentially expands this base. Similarly, when representing the overall interests of the district in parliament or other forums, legislators rarely discriminate between voters based on their sympathies.

Based on the above, constituency orientation is a welcome development for voters of both the government and the opposition. Therefore, one should expect a positive effect of constituency orientation on SWD in both groups. Still, the marginal benefit of constituency orientation for losers may be larger. This is so because very often national public policy neither serves their best interests nor is it consistent with their ideology. In such a case, constituency orientation could make losers feel more represented. Furthermore, large-N comparative research shows that losing an election negatively affects one's subjective wellbeing (Patkós & Farkas, 2020). Therefore, party-neutral local interest representation should have a greater effect on the extent to which losers feel represented.

**Hypothesis 3a** *The positive effect of constituency orientation on citizens' SWD is larger for losers than for winners.*

Second, the proportionality of the election results is also expected to be more important to opposition voters. The well-known mechanical effect of PR is that it moderates the winner's margin in parliament. Governments pay the price of this in stability and autonomy: they are sometimes forced to negotiate a consensus with opposition parties. Therefore, the position of losers is likely to be taken into account. Obviously, opposition voters should welcome this. Indeed, Criado and Herreros (2007) demonstrate that citizens ideologically far from the government show higher levels of democratic satisfaction under PR. On the other hand, due to the government's restricted room to manoeuvre, policy often diverges from the government's original intentions and voters of government parties end up not getting the policies they hoped for. As a result, winners should be happy with less proportional election results. Indeed, based on cross-sectional survey data from eleven European democracies Anderson and Guillory (1997) argue that the disproportionality resulting from majority electoral rules ensures that winners can enact their policy preferences, and that their voters are therefore more satisfied with democracy. Furthermore, Singh (2014) argues that winning elections in a majority system is 'a "bigger", and likely unshared, victory' which magnifies the delight over the electoral success.

However, this does not mean that winners refuse proportionality entirely. The government parties of today are likely to be in the opposition eventually. Because electoral rules are fairly stable institutions, the same proportionality that creates the pressure for governments to compromise will be an asset later on in opposition. Subsequently, today's winners should also value proportionality to some extent, but less than today's losers.

**Hypothesis 3b** *The positive effect of the proportionality of the election results on citizens' SWD is stronger for losers than for winners.*

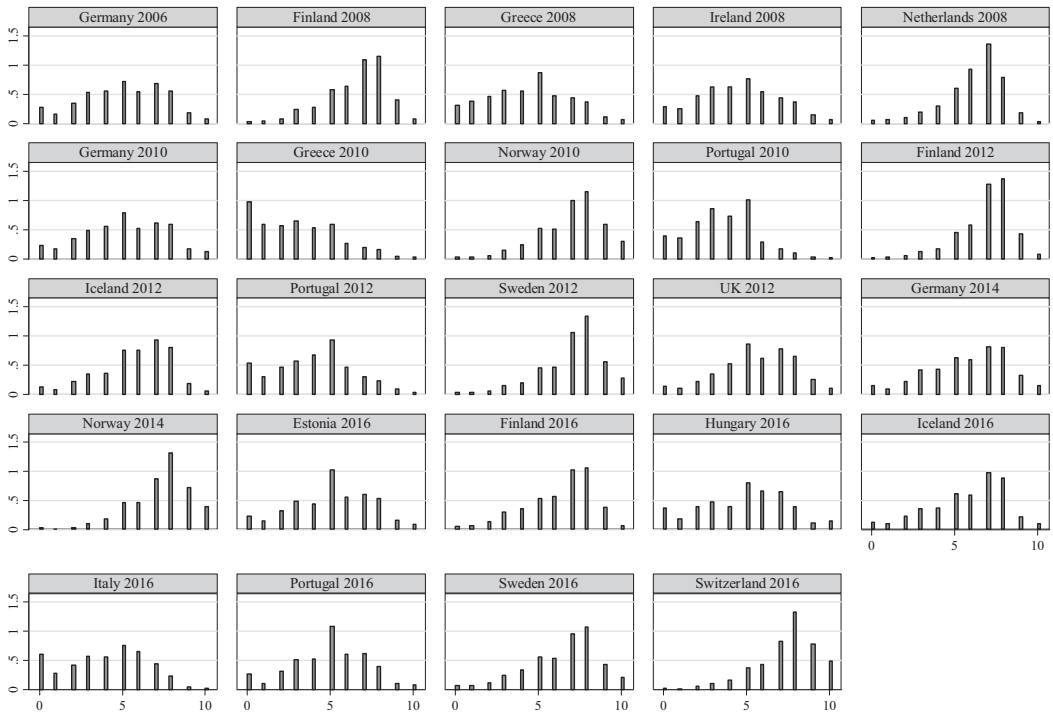


FIGURE 1 Satisfaction with democracy across the various surveys

## DATA

### Satisfaction with democracy

To test the hypotheses of the paper I use data from the European Social Survey (ESS) Rounds 3–8 (European Social Survey Cumulative File & ESS1-9, 2020). The sample contains 24 nationally representative surveys from 14 countries.<sup>1</sup> The dependent variable (DV) of the analysis is citizens' SWD measured on an 11-point scale (0 = extremely dissatisfied, 10 = extremely satisfied). Evidently, there are considerable differences in the patterns of satisfaction across countries (see Figure 1). While in countries such as the Netherlands, Finland, Switzerland, Sweden, and Iceland respondents tend to be rather satisfied with how democracy works (distributions are negatively skewed), the picture is mixed in Germany, Greece, Ireland, the UK, Estonia, Hungary and Portugal (even or positively-skewed distributions).

The survey item 'satisfaction with democracy' is heavily criticised in the literature, especially as a measure of political support for democracy. Similar to Clarke et al. (1993), Canache and colleagues (2001) argue that besides problems of validity, SWD also implies multiple dimensions of political support. Its content has both inter- and intra-country variation, which eventually makes it problematic to meaningfully compare responses. Linde and Ekman (2003) disapprove of its usage as an indicator of regime support altogether, and propose to use SWD as 'a level of support for the way the democratic regime works in practice'. Furthermore, they point out that SWD is sensitive to the institutional context. Relevantly, Cutler et al. (2013) also suggest that 'the SWD question measures exactly what it says it measures': a subjective assessment of the quality of democracy as perceived by the citizens. This

<sup>1</sup>The Online Appendix lists the countries and the elections in the sample.



means that we should take the wording of the question literally, and avoid direct references to regime or government support. The conclusions of this paper should be read in this light.

## Electoral rules

The variable *Electoral Rules* describes electoral systems. Although the literature offers more nuanced classifications of electoral systems, especially from the personalisation point of view (Renwick & Pilet, 2016), this study opts for a simpler categorisation. The analysis distinguishes between (1) Majority (SMD), (2) Mixed-member, (3) Open/flexible list PR and (4) Closed list PR. The reason for simplification is the number of countries in the sample. The more countries we have, the more nuanced classifications we can adopt. The rule of thumb in operationalising electoral rules was that it should be as nuanced as possible as long as the models can run with country fixed effects included. This is imperative, as once country dummies start being excluded from the model because of collinearity between electoral rules and the country variable, one cannot know whether results show the effects of electoral systems or other unmeasured country-level variables.<sup>2</sup>

Voters can choose between candidates in majority, mixed-member systems and under open/flexible list PR. Flexible lists are merged into the category of open lists because they have been shown to increase constituency orientation (André et al., 2017), and both enable voters to change the order of candidates on the party lists (although to different extent). In the mixed-member category, two very different mixed systems are lumped together: Germany's mixed-member proportional and Hungary's mixed-member majority. For the reasons outlined above, the main analysis cannot differentiate between the two, but auxiliary models will highlight the differences especially in terms of the proportionality of electoral results. In line with the hypotheses, compared to closed list PR, majority, mixed-member and open/flexible list PR create greater incentives to constituency orientation and are thus associated with higher SWD (H1). As to proportionality, PR systems are expected to produce more proportionality than majority and some mixed systems which results in more SWD (H2).

## Constituency orientation, proportionality and the winners of the election

As laid out by the hypotheses, the effect of electoral rules is expected to mediate through the constituency orientation of the legislators and the proportionality of election results. To account for the former, I use country-level aggregate data from the Comparative Candidates Survey (CCS). The variable *Constituency Orientation* shows the percentage of candidates who either ranked representing all citizens of the constituency as the most important role of a representative (in CCS<sup>3</sup> Wave 1),<sup>4</sup> or think that the representation of all citizens of the constitu-

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<sup>2</sup>For the same reason, this paper cannot theorise an interaction effect between ballot structure and the district magnitude which has been a major focus in the literature (André & Depauw, 2013; Muñoz-Portillo, 2021; Pilet et al., 2012; Shugart et al., 2005). The Online Appendix includes models controlling for an interaction between the ballot and district magnitude, but these results cannot be considered completely reliable. The supplementary file contains models in which open and flexible lists are handled separately. For these models, the same caution is required.

<sup>3</sup>Unfortunately, not all candidate surveys report on the electoral success of candidate respondents. Therefore, this study works with the representational focus of legislative candidates instead of legislators. For a more detailed discussion of this issue see the Online Appendix.

<sup>4</sup>Candidates were asked to rank six items according to the importance of their representation. The six items are (1) own voters in the constituency, (2) party voters in the constituency, (3) all citizens in the constituency, (4) the party electorate at large, (5) members of a social group and (6) all the citizens in the country.

ency is ‘very important’ (in CCS Wave 2).<sup>5</sup> Citizen respondents from the ESS were assigned the share of constituency oriented candidates at the previous election.

*Constituency Orientation* being a self-reported measure of the legislators’ constituency focus raises the question of how to infer the voters’ perceptions of the legislators’ work. Although legislators’ perceptions on their roles are not always amongst the strongest predictors of their behaviour (see for instance De Winter, 1997), single-case studies confirm the relationship between representational attitudes and time spent with constituency work, the frequency of contacting citizens, as well as maintaining a constituency office (Andeweg, 2012; Edinger & Vogel, 2005; Gallagher & Holliday, 2003; Katz, 1997; Studlar & McAllister, 1996). It has also been shown that the activities of legislators influence electoral performance (Bowler, 2010; Campbell et al., 2019; Däubler et al., 2016; François & Navarro, 2019). This indicates that voters are aware of MP behaviour to some extent. Even if voters do not constantly follow the legislators’ work, their activity becomes a factor in the voters’ decisions through two mechanisms: credit claiming and increasing name recognition (Cain et al., 1987; Däubler et al., 2016; Grimmer et al., 2012; Steenbergen & Lodge, 2003). Consequently, legislators’ role perceptions must be somewhat in alignment with how voters see them. Nevertheless, this variable is an approximation of voters’ experiences with the constituency focus of legislators. To the extent to which it cannot fully explain voter experience, it could bias the results.

Secondly, *Proportionality* measures how well the distribution of party preferences in the electorate translates into the partisan setup of the legislature. I used the Gallagher-index from the Comparative Political Data Set (Armington et al., 2019) for each election prior to the ESS fieldwork. The index ranges from 1 to 100, with 1 for perfectly proportional election results, and 100 for maximum disproportionality. For the sake of easier interpretation, the index was reversed (100-Gallagher-index) so that larger values of *Proportionality* indicate more proportional results.

To account for the winner-loser divide, the variable *Winner* was created using the code published along with The Winner-Loser Data Set (Patkós & Plesz, 2020).<sup>6</sup> The code assigns ones and zeros to respondents with a party preference in the ESS based on their vote at the preceding election. In this study, government voters (*Winner* = 1) are referred to as winners, and supporters of other parties (*Winner* = 0) as losers. If there was a change in the government since the prior election, the variable is updated accordingly.

## Control variables

Control variables on both the country and the individual levels are added to the models. As to the country level, due to the limited sample size on level-2, and the high levels of collinearity, the number of variables has to be restricted. Although the literature indicates numerous country-characteristics that may influence citizens’ SWD, the control variables are carefully selected. Most importantly, *GDP Per Capita* measures economic performance, which is expected to increase the level of satisfaction (Magalhães, 2016). *Income Inequality* is a Gini-coefficient and ranges from 0 to 1, with 0 for perfect equality

<sup>5</sup>Candidates were asked to assess how important they find the representation of all the citizens in the constituency. (1) Very important, (2) rather important, (3) rather not important, and (4) not important at all. A demonstration that the different modes of measurement do not change the conclusions of the analysis is available in the Online Appendix.

<sup>6</sup>At the time of the submission of this paper, the data and the code is not yet publicly available. The code was graciously sent to the author of this paper by the authors of the dataset upon request. To ensure the transparency of the coding, I included – with the authors’ permission – the most important coding information into the Online Appendix. Furthermore, as controlling for *Winner* excludes respondents from the sample who did not participate at the previous elections, and this could potentially bias the results, the Online Appendix includes models in which non-voters are also taken into account.

and 1 for perfect inequality. It is argued in the literature that with increasing inequality satisfaction decreases (Kang, 2015). Both *GDP Per Capita* and *Income Inequality* are taken from the year prior to when citizens were asked about how satisfied they were with democracy. Last, but not least, the *Effective Number of Parties*<sup>7</sup> at the elections represent the variety of choices voters can make at the polling boxes. The larger the number of parties, the greater the likelihood that voters find suitable alternatives. Thus, one might expect the effective number of parties and SWD to positively correlate. However, a counterargument would reason that a plethora of choices may only add to voters' confusion, decreasing their democratic satisfaction.<sup>8</sup>

With regard to individual level variables, *Satisfaction with the Economy* and *Satisfaction with Life* (both measured on a 0–10 scale) control for the respondent's general mood, and are both expected to increase SWD. Political engagement is accounted for by whether or not the respondent *Participated in Demonstrations* (yes/no) as well as *Interest in Politics* (1–4). As for socio-demographics, the respondent's *Gender*, *Age*, *Education* (number of completed school years) and *Subjective Income* (1–4) are controlled for, while *Discrimination* (yes/no) reveals whether or not the respondent is a member of a social group that is discriminated upon. Finally, *Wave* (1<sup>st</sup>, 2<sup>nd</sup>) is added to account for the differences between the two waves of the CCS. The rationale of *Wave* as a control variable is justified because *Constituency Orientation* is measured differently across the two surveys of the CCS. *Wave* will be used to test the robustness of the model in light of the measurement differences.

## RESULTS

To test the indirect effect of electoral rules on citizens' SWD, a simple mediation model is used. The aim of the mediation model is to identify the underlying mechanism behind the effect of an independent variable (IV) on a dependent variable (DV). The mediation model proposes that an IV indirectly affects the DV by influencing a mediator variable (MV). The standard regression approach has been demonstrated to have low power and to be unable to properly address the simultaneous nature of direct and indirect effects (Bollen & Pearl, 2013; MacKinnon, 2008). Additionally, the mediator variables are causes and effects at the same time (Kraemer et al., 2001). To build a mediation model, this study therefore opts for a Multilevel Structural Equation Model.

In the model, SWD is the DV, *Electoral Rules* is the IV and *Constituency Orientation* and *Proportionality* are MVs. In the multilevel setup, *Country* denotes level-2 in which citizen respondents are nested. The model assumes that the error terms ( $e_1$ ,  $e_2$  and  $e_3$ ) are uncorrelated and follow multivariate normal distribution. Level-2 equations include country fixed effects (FE) to separate electoral system effects from the effects of unmeasured country-specific variables. The model is built in the following structure.

$$SWD \leftarrow \alpha_{Country} + \beta_1 \times Constituency\ Orientation + \beta_2 \times Proportionality + \sum \beta_k \times Rules_k + \sum \beta_i \times Control_i + e_1; \alpha_{Country} \leftarrow \rho + e_{Country}$$

<sup>7</sup>Although one could suspect that the proportionality of the electoral system and the effective number of parties are highly correlated, the Pearson correlation coefficient reveals only a medium sized correlation between them ( $r = 0.38$ ,  $p = 0.000$ ). Removing the effective number of parties from the models does not interfere with the effect of proportionality.

<sup>8</sup>In line with the literature, the following variables were also taken into account, but were dropped because of their strong correlation with economic performance or electoral system proportionality: *Government Effectiveness* ([https://www.theglobaleconomy.com/rankings/wb\\_government\\_effectiveness/](https://www.theglobaleconomy.com/rankings/wb_government_effectiveness/), Accessed: 5 May 2019), *Rule of Law* ([https://www.theglobaleconomy.com/rankings/wb\\_ruleoflaw/](https://www.theglobaleconomy.com/rankings/wb_ruleoflaw/), Accessed: 5 May 2019), *Corruption Perception* ([https://www.theglobaleconomy.com/rankings/transparency\\_corruption/](https://www.theglobaleconomy.com/rankings/transparency_corruption/), Accessed: 5 May 2019), *Voice and Accountability* ([https://www.theglobaleconomy.com/rankings/wb\\_voice\\_accountability/](https://www.theglobaleconomy.com/rankings/wb_voice_accountability/), Accessed: 5 May 2019), *Type of Democracy* (<http://www.cpds-data.org/>, Accessed: 5 May 2019).

TABLE 1 The indirect effect of electoral rules

	Through constituency orientation	Through proportionality
Majority	0.469* (0.114)	-0.707* (0.191)
Mixed-member	0.384* (0.093)	-0.662* (0.178)
Open/flexible list PR	0.058* (0.014)	0.143* (0.038)

Note: Effects of Model 1 testing H1 and H2. For the full model see the Online Appendix.

Reference category: Closed list PR.

\* $p < 0.05$ .

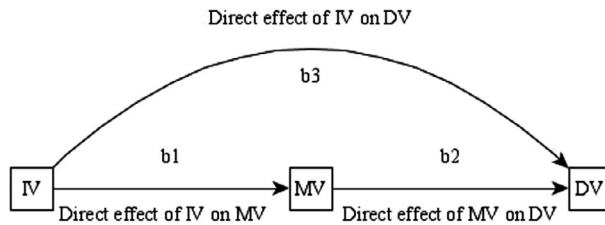


FIGURE 2 Direct effects in a mediation model

$$\text{Constituency Orientation} \leftarrow \gamma + \sum \delta_k \times \text{Rules}_k + FE_{\text{Country}} + e_2$$

$$\text{Proportionality} \leftarrow \tau + \sum \varphi_k \times \text{Rules}_k + FE_{\text{Country}} + e_3$$

Figure 3 presents the direct effects<sup>9</sup> and Table 1 the indirect effects of electoral rules on SWD. Indirect effects are the products of direct effects. Using Figure 2 as a simple example, the indirect effect of an IV on the DV is  $b1 \times b2$ , while its total effect is  $b3 + b1 \times b2$ . For instance, the indirect effect of open/flexible list PR on SWD is the product of the coefficient for open/flexible list PR in explaining *Constituency Orientation* and the coefficient for *Constituency Orientation* in explaining SWD.<sup>10</sup>

Closed list PR is selected as the reference category for *Electoral Rules*. Coefficients are interpreted as the deviation of the various other electoral systems from closed lists. In none of the models, the direct effects of electoral rules on SWD are significant. Therefore, the indirect effects presented below are also considered as total effects. First, looking at majority electoral rules, as opposed to closed list PR, SMDs are associated with significantly higher values of *Constituency Orientation* (Coef = 0.476), which – as expected – makes citizens more satisfied with democracy (Coef = 0.985). Voting in SMDs, thus, indirectly increases satisfaction by 0.469 points ( $0.476 \times 0.985$ ). Similar tendencies are prevalent in the cases of mixed-member systems and open/flexible list PR. Respondents in mixed-member electoral systems are on average 0.384 points more satisfied with democracy *because of the higher levels of constituency orientation* facilitated by the SMD component of the system ( $0.39 \times 0.985$ ). The data further supports that compared to candidates in closed-list PR those competing on open/flexible lists are also more constituency oriented (Coef = 0.06). This difference is significant, though not as considerable as in the cases of majority and mixed electoral rules. The indirect effect of open/flexible list PR on SWD amounts to 0.058.

<sup>9</sup>A table on all direct effects is available in the Online Appendix.

<sup>10</sup>The indirect effect of open/flexible list PR on SWD through *Constituency Orientation* is  $\delta_{\text{Openorflexiblelist}} \times \beta_1$ .

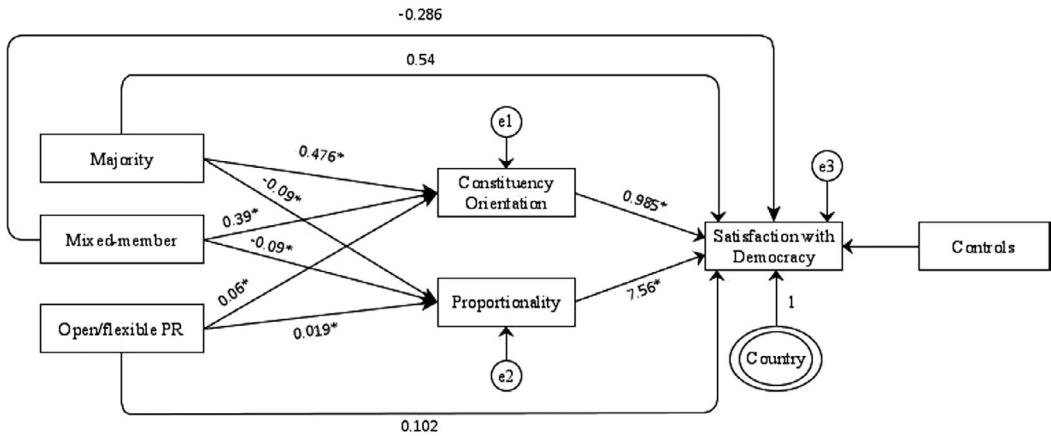


FIGURE 3 The direct effects in the model explaining satisfaction with democracy (GSEM, Model 1,  $*p < 0.05$ )

These results suggest that irrespective of the intra-party competition that open lists generate, single member districts perform better in increasing satisfaction through the MP-voter linkage. Therefore, H1 finds partial support.

The case of mixed-member electoral systems is curious. When creating the electoral rules variable, two quite different mixed-member electoral systems were lumped together in the same category: Germany (MMP) and Hungary (MMM). A difference is expected not so much in terms of facilitating constituency orientation, but proportionality. Still, the model with separate categories for Germany and Hungary reveals statistically significant differences in constituency orientation as well. Results indicate that relative to closed list PR both Hungary and Germany perform better in facilitating constituency orientation. The indirect effect on SWD through constituency orientation is 0.199 for Germany, and 0.463 for Hungary. When compared to Germany's MMP, Hungary's MMM puts greater emphasis on constituency orientation (difference = 0.269, SE = 0.003,  $z = 83.54$ ,  $p = 0.000$ ). Nevertheless, because this latter model does not include country fixed effects, the estimated difference between the two countries may not be reliable.

Moving on to H2, Figure 3 reveals that the effect of electoral rules mediates also through proportionality. Only open/flexible lists perform better than closed list PR in facilitating proportional election results. Table 1 shows that compared to closed list PR, majority electoral rules decrease SWD by 0.707 points. Interestingly, voters under open/flexible list PR are 0.143 units more satisfied on average. These results support H2, namely that PR is associated with higher individual level satisfaction *due to the proportionality of election results*.

Again, auxiliary models separate the effect of Germany's and Hungary's mixed system on SWD. In the German case, the mixed-member proportional system is expected to produce significantly more proportional electoral results than Hungary's mixed-member majority. Indeed, the effects of the two systems point in opposite directions. Compared to closed list PR, the German system boosts SWD by 0.263, whereas the model reports a 0.541 point decline in SWD for Hungary. The difference is significant both statistically and substantively. Hence, the results regarding mixed electoral systems should be interpreted with caution.<sup>11</sup> While in terms of constituency orientation both mixed systems fall between majority and open/flexible list PR, in the case of proportionality Germany's MMP performs better than closed list PR. In sum, compared to closed list PR mixed electoral rules facilitate higher levels of SWD by strengthening constituency orientation.

<sup>11</sup>Models separating out the effect of Germany's and Hungary's mixed systems do not include country fixed effects. Hence other uncontrolled country effects may also be part of creating a difference between the two countries.

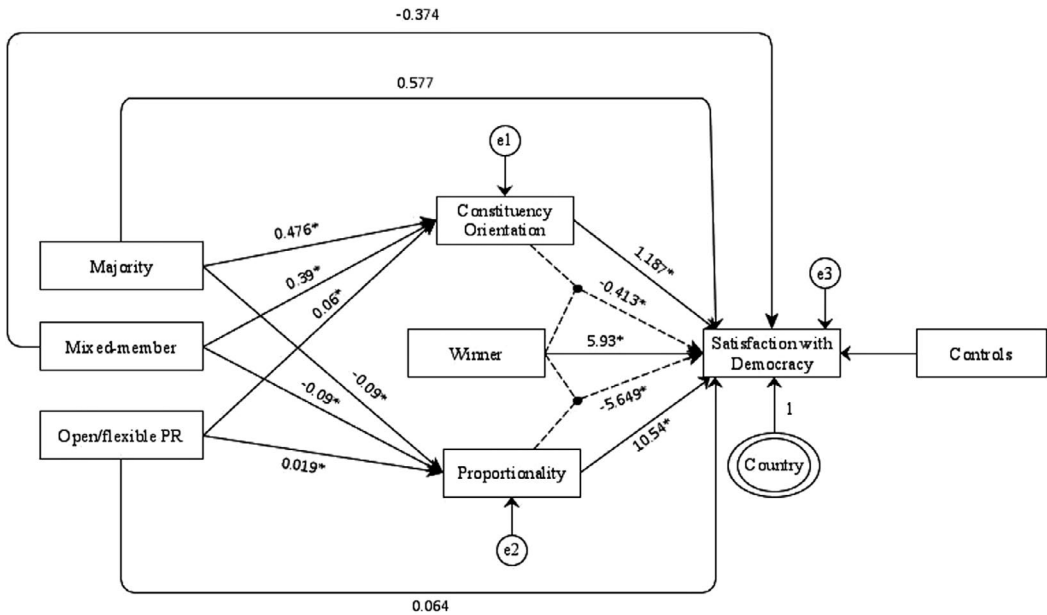


FIGURE 4 The direct effects in the model explaining satisfaction with democracy (GSEM, Model 2, \* $p < 0.05$ )

The difference between the two mixed-member electoral systems in the sample roots in their diverging capacity to produce proportional election results.

Looking at the level of SWD, we see that a country with an average value of *Constituency Orientation* and *Proportionality* scores an average of 5.66. Although there is no country in the sample with these exact properties, Greece is very close to the average along both features. Nevertheless, Greek respondents do not deliver the outcome estimated by the model: they are amongst the least satisfied in the sample. More common are countries that score either low on *Constituency Orientation* and high on *Proportionality*, or vice versa. In the Netherlands, Norway, Finland and Switzerland, which have the lowest levels of constituency orientation and the most proportional election results, SWD averages at about 5.68, and delivers the highest levels of satisfaction. Conversely, in countries such as the UK or Hungary, where candidates are very constituency oriented and election results are disproportional, SWD amounts to roughly 5.18 points. Ideally from the viewpoint of SWD, both constituency orientation and proportionality are at high levels ( $SWD_{\text{model estimate}} = 6.42$ ). In the sample, Sweden falls closest to this ideal. Last but not least, with low levels of constituency orientation and fairly disproportional election results, Italy is close to the worst case scenario in the sample. Model estimates for the worst case are at 4.44 points.<sup>12</sup>

Before moving on to the next hypothesis (H3), a few words on the control variables are in order. Satisfaction with one's life, satisfaction with the economy, political interest, the number of completed school years, informal political participation (such as attending demonstrations) and the subjective income level all affect SWD positively. Conversely, as expected, if the respondent is a member of a social group that is discriminated upon, SWD is lower. As to the country-level measures, the effective number of parties has a negative, while GDP per capita a positive effect on SWD. Standardised coefficients reveal that *Satisfaction with the Economy* stands out as the most influential regressor (0.478). Importantly, the proportionality of election results is the second strongest variable in the model (0.135). Additionally, *Constituency Orientation* affects SWD stronger than many of the usual suspects (0.076). Besides the regressors already mentioned, satisfaction

<sup>12</sup>Note that 'lowest' and 'highest' levels of the variables indicate the lowest and highest values in the sample and not their theoretical lows and highs.

TABLE 2 The indirect effect of electoral rules

	Through constituency orientation		Through proportionality	
	Losers	Winners	Losers	Winners
Majority	0.565* (0.117)	0.369* (0.118)	-0.986* (0.189)	-0.457* (0.189)
Mixed-member	0.463* (0.096)	0.302* (0.097)	-0.922* (0.177)	-0.428* (0.177)
Open/flexible PR	0.070* (0.015)	0.046* (0.015)	0.199* (0.038)	0.092* (0.038)

Note: Effects of Model 2 testing H3a and H3b. For the full model see the Online Appendix.

Reference category: Closed list PR.

\* $p < 0.05$ .

with life, the respondents' party affiliation, GDP per capita and the effective number of parties have larger effects on SWD than the candidates' constituency orientation.

To test if there is a winner-loser gap in how constituency orientation and proportionality affects SWD (H3), two interactions are added to the model (*Winner* × *Constituency Orientation*; *Winner* × *Proportionality*). Dashed lines in Figure 4 and the corresponding (negative) coefficients reveal that the effects of both constituency orientation and proportionality is larger in the case of losers. This gives support for both, H3a and H3b. Table 2 offers a more nuanced picture of how the effects of the various electoral systems vary across the winner-loser divide. Overall, compared to losers in closed list PR, losers in majority and mixed-member systems are 0.421 and 0.459 units less satisfied with democracy. This difference shrinks to 0.088 and 0.126 units respectively in the case of the winners of the elections. Open/flexible list PR performs better than closed list PR in both groups of voters: losers are 0.269, while winners are 0.138 points more satisfied in a proportional system where they may choose between candidates.

As for the difference between the two mixed systems, Germany's proportionality again increases satisfaction both for winners (0.173) and losers (0.359). In accordance with the hypothesis, the SWD of losers increases to a greater extent than the SWD of winners. We see the opposite for Hungary: disproportional electoral results decrease (compared to closed list PR) the SWD for winners and losers, but for the losers this drop in SWD is significantly larger. These results confirm again that mixed electoral systems are not necessarily the best of both worlds in terms of facilitating constituency orientation and proportionality. This also has consequences on how these electoral rules contribute to citizens' satisfaction with democracy.

## CONCLUSIONS

This study looked at the effect of electoral rules on citizens' satisfaction with democracy. It theorised that in electoral systems which allow voters to choose between candidates, citizens are more satisfied with democracy because of the higher levels of constituency orientation. At the same time, it was also expected that majority and mixed-member electoral systems make election results less proportional and thus decrease satisfaction. Moreover, the paper also tested if these two pathways of mediation work the same way for the winners and the losers of the elections. I used citizen-level ESS data, which was complemented with country-level aggregate measures of constituency orientation based on the Comparative Candidates Survey. Hypotheses were tested with the help of a multilevel structural equation model. Results indicate that there is indeed a mediated effect of electoral rules via the two suggested routes.

On the one hand, the data confirm that in countries applying single member districts (i.e., majority and mixed systems) constituency orientation is a strong part of the role perceptions of legislative candidates. Contrary to the expectations, though, the difference between open/flexible list and closed list PR in this respect is small (albeit statistically significant). Importantly,

constituency orientation positively affects SWD. Thus, taking into account this pathway of mediation, majority and mixed electoral systems perform best in facilitating democratic satisfaction.

On the other hand, model results show that the effect of electoral rules is also mediated through the proportionality of election results: more proportionality is associated with higher levels of satisfaction. With regards to the overall effect of electoral systems on SWD, open/flexible lists and Germany's MMP create higher satisfaction than closed list PR. A strong voter-MP linkage that comes with SMDs, albeit important, cannot balance out the negative effect of disproportionality in the cases of the UK and Hungary.

With respect to the winner-loser divide, the effect of constituency orientation and proportionality is positive for both winners and losers. Importantly though, the losers of the elections show significantly higher levels of democratic satisfaction when candidates are constituency oriented and when election results are proportional. These findings are in line with the literature regarding the varying effect of proportionality (Ruiz-Rufino, 2013), and add new layers to understanding the importance of constituency orientation. The latter seems especially important in countries with a disproportional distribution of mandates. In such countries, losers do not only lose the elections but they lose it with a large margin. This leads to a significant drop in satisfaction, which can potentially be lessened by legislators actively pursuing constituency representation.

The results of this study raise a couple of further questions. First, what do they tell us about how citizens conceptualise democracy? Obviously, the data cannot reveal the whole picture, but give us hints to the answers. Most importantly, citizens do not care about the rules per se, but rather about the processes that these rules facilitate. They may not even causally connect electoral rules and their implications. The results suggest that the evaluation of democracy is connected to substantive issues rather than the institutional setup. The substantive issue revealed by this study is *representation*. On the one hand, the fairness of representation seems to be of utmost importance. A democracy that works well should not allow the underrepresentation of social and political minorities. On the other hand, citizens not only tolerate political particularism, that is constituency orientation, but they also expect democracy to facilitate this type of behaviour. The representation of local interests complements the country-level representation of party affiliations.

Second, do these results mean that we can expect SWD to increase if a country adopts more proportional or more candidate centred electoral rules? Early results suggest that this is not necessarily the case. Renwick and Pilet (2016) do not find evidence that electoral reform promoting more personalisation increase SWD. Furthermore, Karp and Bowler (2001) show that after the 1993 transition from first-past-the-post to mixed-member proportional in New Zealand, citizens' SWD declined. This was the case because the electoral reform brought not only proportionality but coalition governments as well, which were alien from New Zealand politics and had no support as a form of government. This illustrates the limits of comparative research. When theorising the effects of electoral reform one should take into account, among others, country history, political culture, and a priori preferences. Citizens in each country may react to changes differently depending on the political and historical context. Constituency orientation and proportionality may contribute to SWD differently across countries. With more observations on the country level, future research could reveal these differences, and help us better understand the relationship between electoral systems and SWD.

The analysis has of course its limitations. First, constituency orientation is an aggregate of candidate response to survey questions. This may hide important nuances in how exactly the causal mechanism between electoral rules and SWD works. Importantly, we lack information on how constituency orientation is advertised by legislators and perceived by citizens. Future research should help reveal how exactly this mechanism works. Second, a further problem is caused by data availability. Mediator variables measure the representational roles of legislative candidates, instead of legislators. This study works with the assumption that electoral success does not change perceptions of representation, but in fact we have only limited



evidence to confirm this. Furthermore, the selection of countries and elections is perfectly data driven. All countries to which data was available were included into the sample. Future research should test generalisability by including additional countries and elections into the study, and increasing the variation of electoral rules. Nevertheless, the findings of this study point to the importance of institutions and the ways they influence citizens' perceptions of the political system. Importantly, it reveals that citizens indeed value a stronger connection between them and legislators and a better representation of the various interests in parliament.

## ACKNOWLEDGMENTS

I would like to thank the reviewers for their time and effort. Their comments and suggestions helped make the manuscript better. I also thank Zsolt Boda and David M. Wineroither for translating the abstract to French and German.

## OPEN RESEARCH BADGES



This article has earned Open Data and Open Materials badges for making publicly available the digitally-shareable data necessary to reproduce the reported results. The data is available at <https://figshare.com/s/eb03d0edc10c9e34068f>.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are openly available in figshare at <http://doi.org/10.6084/m9.figshare.14995305>.

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**How to cite this article:** Papp, Z. (2021). The Indirect Effect of Electoral Rules on Citizens' Satisfaction with Democracy: A Comparative Study. *Swiss Political Science Review*, 00, 1–20. <https://doi.org/10.1111/spsr.12497>