

# INDIVIDUAL REPRESENTATION: A DIFFERENT APPROACH TO POLITICAL REPRESENTATION

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*This article presents a new conceptualisation and measure of political representation to complement conventional approaches. Individual representation scores place the individual rather than the legislature at the centre, providing a fresh perspective on the relationship between inequality and representation. They are calculated by comparing first the position of the individual with other citizens, and second the position of the individual with the legislature. The article outlines how to make sense of individual representation scores and includes an empirical example.*

## **Introduction**

Political representation describes the relationship between citizens and a representative body. Most commonly, this relationship is explored in the context of national legislatures, national governments or political parties. The relationship between citizens and representatives is usually conceived in one of two ways. On the one hand, dyadic representation is concerned with the link between constituents and their representatives. On the other hand, collective representation is concerned with the link between all citizens and the representative body as a whole. This article presents a new way to perceive political representation, with the aim of complementing the existing approaches. Individual representation places the individual at the centre rather than the representatives.

Traditionally, the focus of representation studies has been somewhat different in the United States and Europe. In the United States, the dyadic perspective is used more frequently; in Europe, the collective perspective seems more common. To a large degree, this difference reflects the electoral systems in place. The dyadic perspective seems appropriate in countries with majoritarian systems and single-member districts, where there is a direct and clear link between the constituents and their (usually single) representative. Collective representation seems appropriate in countries with proportional representation (PR) systems, where the link between constituents and their (usually multiple) representatives is less clear. It is important to note, however, that both perspectives can be—and have been—applied to both contexts (Dalton 1985; Esaiasson and Holmberg 1996; Herrera et al. 1992; Miller and Stokes 1963; Weissberg 1978).

This article complements existing approaches by introducing a new perspective. Although typically neglected in the literature, the concept of individual representation deserves attention. Golder and Stramski (2010) mentioned the perspective in a footnote, but did not consider it for their analysis of representation and policy congruence. In this

article, I discuss the merits of individual representation, and the ways it can complement existing approaches. As will be outlined in more detail below, individual representation differs from dyadic and collective representation by taking a different starting point. For individual representation, citizens rather than representatives are taken as the basis. The result is that the level of representation can be expressed at the individual level, which has advantages for data analysis and exploring the relationship between inequality among individuals and political representation.

Existing approaches mean that we necessarily begin with clearly defined inequalities in society, such as between men and women, or the voters of a specific party. Issues where representation may be high or low—such as left–right placements or views on immigration—are examined in a second step. With individual representation scores, it is possible to start with the issue, and find groups who are under- or over-represented in a second step. The advantage in this case is that groups can be defined in a flexible manner, because representation scores are calculated as the property of individuals. Membership in multiple groups and related political behaviour can be expressed easily, such as the level of representation of old women or left-wing men. This opens up the way for studies on complex expressions of inequality, such as to calculate interaction effects. For instance, for questions of trust and social cohesion, the interaction between different forms of under-representation is of central interest. Using individual representation scores, it could be examined if say black women are particularly prone to distrusting government, given their (common) double under-representation. Similarly, individual representation may be used to test the question whether individuals who are better represented also feel better represented—rather than make the assumption. In conjunction with existing perspectives, individual representation leads to a more comprehensive picture of the relationship between inequalities and representation than any single approach could provide.

In order to understand the concept of individual representation, it will be necessary to first outline different possible conceptualisations of political representation. By so doing, the properties of individual representation scores can be understood more readily. The main part of the article will be on individual representation, which will be illuminated using an empirical example.

## **Forms of Political Representation**

Political representation can refer to a range of relationships between the masses (citizens) and the political elite (representatives). Through representation, individuals are given a presence in governments and positions of decision-making (Pitkin 1967). In principle, free elections give each citizen equal weight and through representation a voice in decision-making, although not all groups in society are present in positions of decision-making to the same extent.

Depending on the study and research question, the definition of the mass and the elite differs. The mass can be the population of a country, the citizens of a country, the electorate, actual voters, or voters of a specific party. The elite can be the representatives in the national legislature, in government, in a regional assembly, the representatives of a particular district, or elected representatives of a particular political party. By combining these—and further—relationships between the mass and the elite, political representation can refer to a wide range of arrangements. Yet, it is possible to categorise most of the possible relationships into dyadic and collective representation. In this article, I show that relationships beyond dyadic and collective representation are conceivable, and I argue that these can indeed be useful additions.

The relationship between the mass and the elite can be conceived both in terms of ideology, issue preferences and agenda priorities (substantive representation), and in terms of membership in demographically defined groups (descriptive representation). There are arguments for highlighting both substantive and descriptive representation (Banducci et al. 2004; Childs 2002; Dodson 2006; Mansbridge 1999, 2005; Overby and Cosgrove 1996). As will become apparent, however, not all possible relationships between the mass and the elite are equally suited for describing substantive and descriptive representation. This does not mean that such perspectives are invalid or generally unsuited, but that not all possible aspects of the relationship between the mass and the elite can be covered by a single perspective or measure (see also Achen 1977, 1978).

Four representational relationships can be envisaged, covering groups or individuals at both the elite (representatives) and mass level (citizens). First, an individual citizen can be compared with an individual representative. I refer to this relationship as *direct representation*. Second, an individual representative can be compared with citizens as a group. This is *dyadic representation*, and studies tend to focus on the representatives rather than the citizens. Third, a group of representatives can be compared with groups of citizens. This is *collective representation*, and studies again tend to focus on the representatives. Fourth, the difference between an individual and a group of representatives describes *individual representation*. The focus is on the individual.

Dyadic representation is concerned with political representation in a specific district or constituency (Eulau and Wahlke 1978; Herrera et al. 1992; Miller and Stokes 1963). The perspective is of a single representative representing his or her constituents. Usually, studies concerned with dyadic representation examine the role of delegates of a district and to what extent they can be said to represent their constituents. In this sense, dyadic representation addresses questions of personal representation (Colomer 2011) as much as representation by political parties. The focus in these studies is on substantive representation, most commonly political left and right. Descriptive representation could be studied using the dyadic perspective if the mode citizen in the constituency is examined. In this case, equivalence could be covered (e.g., is the representative of a predominantly black district also black?), but it is impossible to determine distances in studies of descriptive representation. In terms of measurement, a common approach is to look at the difference between the position of the representative and the mean or median position of the citizens, or the mean distance to each citizen in the district (Dalton 1985). In both cases, smaller differences stand for higher congruence, which is considered better.

Collective representation is concerned with political representation in a specific representative body (Mansbridge 1999; Marsh and Norris 1997; Norris 1985; Weissberg 1978). The perspective is of representatives as a group representing all citizens. Depending on the study, the focus can for example be on parliament representing citizens, government representing voters, or political parties representing voters of the party in question. In each situation, the focus is on the act of representing rather than who does the representing. Put differently, the link between constituents and their representatives is no longer central. Indeed, it has been argued that citizens are more concerned that their interests are represented than who does this (Weissberg 1978).

With its focus on groups, collective representation is the perspective used for descriptive representation (Koch and Fulton 2011; Kunovich and Paxton 2005; Norris 1985; Sawyer et al. 2006; Schwindt-Bayer 2010). By examining proportions in the population and the representative body, questions of numerical under-representation can be addressed using collective

representation. At the same time, collective representation is a useful perspective for substantive representation. It is generally measured by taking the (absolute) difference between the proportion of a specific group in the representatives and the same group in the citizens, or by dividing one by the other. Variations of these approaches cater for multiple groups, or the ease of interpretation (Ruedin 2011). It is also common to take the proportion of women as a measure of representation (Krook 2011; Paxton et al. 2007; Schwindt-Bayer 2010), ignoring the variation in the population. This approach can be defended in the case of women.

Direct representation is concerned with a single representative representing a single citizen. This perspective works well for substantive representation where distances may be of interest. For descriptive representation, it is possible to express whether the citizen and representative belong to the same group, but this may be of limited analytical interest. Direct representation is the common approach in vote recommendations (such as EU Profiler.eu or Smartvote.ch), but it may be of limited use in social and political sciences where it may be too specific for comparative research. The measurement of direct representation is the (absolute) difference between the position of the citizen and representative in question. Representation is generally considered to be better where differences are small or absent. In vote recommendations, the position of parties rather than individual representatives may be used. In this case, party positions are sometimes set as the mean or median position of the party's representatives. Direct representation does not use information on the distribution of position of representatives, implicitly suggesting that the position of parties as a whole matters more than the positions of representatives within (compare Colomer 2011). Whether the focus is on individuals or parties, it is possible to examine multiple domains at the same time. Usually simple averages (means) of all domains are taken; weights can be incorporated to emphasise differences in some domains.

## Individual Representation

This article is concerned with individual representation. The focus is on how individuals are represented by a representative body. The perspective of individual representation can be applied to many situations, including citizens being represented by parliament, or voters being represented by a particular party. It contrasts with collective representation where the position of citizens and representatives is combined to compare midpoints. In existing studies of political representation, the role of the median voter is often highlighted. The position of the median voter cannot be defeated in elections, and is therefore particularly relevant to political parties (Black 1948; Downs 1957). Comparisons between the median voter and the government are common to examine whether the representatives are in line with those represented (and to what extent). According to political theory, however, all voices should count the same (Verba 2003), and responsiveness should therefore be to all citizens, not just the median voter.

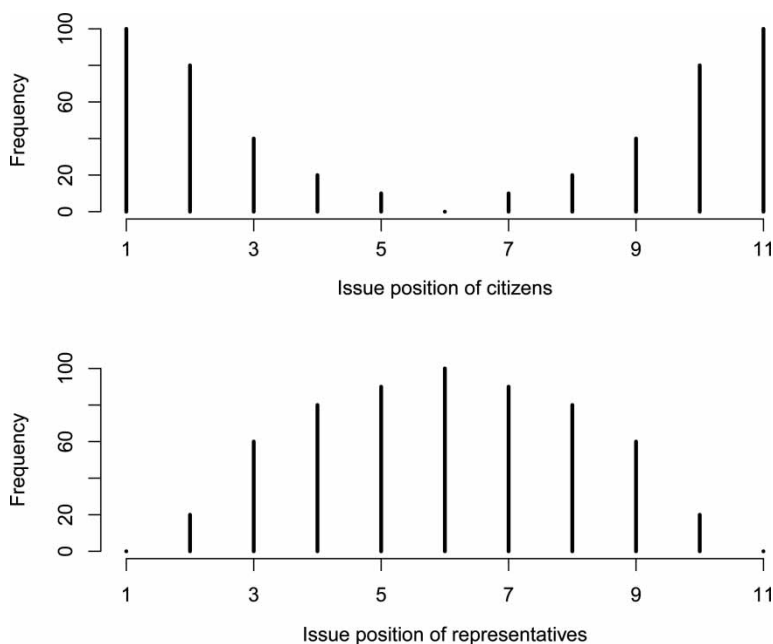
The perspective of individual representation maintains information on the position of individuals. Specifically, the outlined approach considers the position of citizens vis-à-vis other citizens in society. At the same time, the level of representation is expressed as the property of individuals rather than groups they belong to. This has advantages for data analysis, and makes it possible to address multiple group membership, such as by calculating interaction effects. As dyadic representation, individual representation is more suited for substantive representation where distances are examined. In both cases, equivalence with the mode position could be used, but this does not offer an intuitive way to examine descriptive representation.

The approach of individual representation is based on a thought experiment of sequential comparison: first the position of an individual citizen is compared with the position of all other citizens, and second his or her position is compared with those of all the representatives. Put differently, the intuition is first to determine how marginal the position of an individual is in a given society. In a second step, the position of the citizen is compared with the representatives, to determine how marginal this position would be among representatives. Based on absolute values, these measures of marginality determine the mean of the distances to all other individuals. The comparison with other citizens is necessary so that individual representation scores do not simply report the position of the citizen. Assuming that the mean of the representatives is somewhat central, simply subtracting the position of each citizen from the mean position of the representatives does not yield significant information. Instead, individual representation scores are comparing the marginality of the citizen in the population with the marginality of the citizen among representatives. As other approaches to political representation, individual representation scores assume that representation is better where Euclidean distances between the individual and the representative are smaller. This is the case, because higher congruence is regarded as normatively preferable.

More formally, individual representation scores ( $V_k$ ) consists of two components: the marginality of the individual among citizens ( $M_{Z,k}$ ), and the marginality of the individual among representatives ( $M_{R,k}$ ):  $V_k = M_{Z,k} - M_{R,k}$ . For every citizen ( $Z_k$ ), the distance between him or herself to every other citizen ( $Z_i$ ) is calculated. This gives a measure of how marginal the individual's position is in society:  $M_{Z,k} = \frac{1}{n-1} \sum |Z_k - Z_i|$ , where  $n$  denotes the number of citizens. In a similar fashion, the distance between the individual ( $Z_k$ ) and all the representatives ( $R_i$ ) is calculated:  $m_{R,k} = \frac{1}{M} \sum |Z_k - R_i|$ , with  $m$  denoting the number of representatives. The theoretically possible values range from  $-1$  to  $1$ . The relationship between the two components illuminates the representation of the individual. If  $M_{Z,k} = M_{R,k}$ , then the individual is equally marginal among the population and the representatives. Following theories of representation (Mansbridge 1999; Phillips 1995), this is considered the ideal. It describes the situation where a dominant position among citizens is also a dominant position in the legislative, and where a marginal position among citizens does not carry much weight among representatives. If  $M_{Z,k} < M_{R,k}$ , the individual is under-represented. Put differently, the individual is closer to other citizens than to the representatives. This may happen when the position of the individual is commonplace among citizens but has no correspondence among representatives. Conversely, an individual can be over-represented, where his or her position is closer to the representatives than to other citizens. This may happen if there are relatively many representatives sharing the position of an individual, but relatively few citizens do so.  $M_{Z,k}/M_{R,k}$  can provide an additional indication of the magnitude of such under- or over-representation. This ratio is 1 if the distance between the individual and the representatives is equal.

An extreme example can be used to make the difference between individual representation and mean-based approaches apparent. Let the distribution for citizens resemble a u-curve and that of the representation an n-curve (Figure 1). A citizen on the very left is *not* marginal compared with the other citizens, but he or she is marginal compared with the representatives. Individual representation scores indicate under-representation for citizens at the margins; a mean-based approach will not pick this up.

The use of representation scores at the individual level makes possible micro-level analyses. Rather than treating representation as a property of a predefined group, representation is regarded as an individual affair. Consequently, sophisticated analyses with individual-level data are feasible, examining the link between inequality and representation from a new



**FIGURE 1**

Individual representation and mean positions

*Notes:* Hypothetical distribution of issue positions of citizens (top) and representatives (bottom); citizens and representatives with equal mean position; individual representation scores will indicate different levels of representation for individuals, particularly under-representation at the margins; mean-based approaches do not pick up differences.

angle. This is the case, because using individual representation scores it becomes possible to identify groups in non-political dimensions and consider multiple group membership simultaneously. To do so, it is not necessary to have data on group membership for the representatives, such as the age of representatives. Such data are necessary to determine the collective representation of groups, for example, but data availability is often a limitation for studies using collective representation. Like other measures of political representation, individual representation scores are sensitive to small N and missing data on the base variable—such as left–right positions. This may affect particularly representative bodies where candidate surveys often fail to provide full coverage.

As indicated, individual representation scores are different from a comparison involving mean positions of the citizens and representatives. If the distributions of citizens and representatives are similar, the comparison of mean positions carries some information. Specifically, we can tell whether those left or right of the mean are over-represented, but no finer distinctions are possible. In this case we also need a definition of what we mean by ‘being similar’. A crude approach may be offered by the AJUS system, which classifies the shape of distributions (Galtung 1969). By contrast, individual representation scores compare the distributions explicitly and therefore can circumvent conceptual issues of how to determine whether two distributions are similar.

Individual representation scores are complementary to considerations of dyadic and collective representation. This is the case because individual representation scores are in

most cases unsuitable for direct comparisons between countries, although within a country, new nuances can be explored. It is possible to compare the level of individual representation for specific groups, such as by comparing the mean of individual representation scores for a group. Where individual representation scores differ from the mean, it is possible to argue that the political process has made individuals marginal by not reflecting their position in the representative body. The intuition here is that the political process can aggravate marginal positions, as they exist in the population. For example, using individual representation scores, we can address the interplay of turnout inequality, differences in education, and political interest at the same time—examining whether the combination of these factors has particular consequences. Similarly, different demographic groups can be addressed jointly.

### Example

In this section, I use an example to illustrate the theoretical considerations outlined above. Associations between individual representation scores and individual-level variables are explored using three hypotheses. The example is included to illustrate that the perspective of individual representation is feasible and that it may be relevant for explaining empirical realities. No doubt, these explorative results can be improved by explicit theory and better operationalisation of the concepts.

The first hypothesis concerns political behaviour. It can be expected that individuals behave in a way conducive to higher representation. Without specifying the exact mechanism, it can be expected that those with more education, of a higher class, and with more interest in politics are over-represented. The intuition is that the political behaviour of members of these groups is such that their interests are represented to a greater degree (Bartels 2009; Gilens 2005; Mayer 2011). In a similar vein, it can be expected that non-voting is a non-random issue (bias), reflecting inequalities in society (Teixeira 1987; Wolfinger and Rosenstone 1980).

*H1: Individuals with more education and with more interest in politics are over-represented.*

The second hypothesis concerns demographically defined groups. It can be expected that members of demographically defined groups are over-represented in policy domains that directly affect them. This is the case because they have greater incentives to defend their particularised interests. Relevant groups may include minority and language groups, regional groups, but also cover gender/sex, and age. However, the existence of substantive group interests in these dimensions can be questioned. The political dominance of certain groups in society more generally means that we can expect these groups to be over-represented (Converse and Pierce 1986; Davis et al. 2011; Norris 2004).

*H2: Older individuals and men are over-represented.*

The third hypothesis concerns the outcome of individual over-representation. It can be expected that individuals who are over-represented have greater trust in key institutions, such as parliament, government and the police (Blondel et al. 1997; Mansbridge 1999, 2008). This may also be reflected in higher levels of generalised trust.

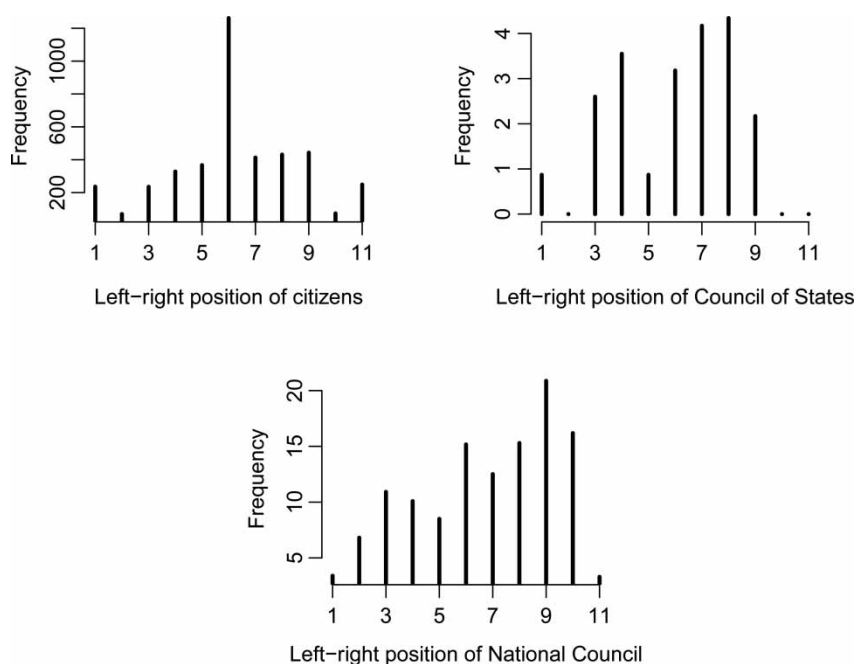
*H3: Individuals with higher levels of individual representation trust the police and government more.*

The empirical example is based on the 2007 Swiss Election Studies, which includes a part on citizens and a matching candidate survey. The data cover both Swiss chambers, the Council

of States and the National Council. The elected members of two chambers will be covered separately. The example covers representation on a generic left–right scale, which is based on self-placement (1 to 11). Other dimensions, or the coverage of agenda priorities, are also possible with the data in question, and will be covered in future research. The data on the representatives are somewhat patchy, with a response rate of 63% for the National Council and 50% for the Council of States. There is a clear response bias in the data used, and this article uses a party weight to address some of the issues. The substantive results may still be inaccurate despite the weight used, and that is because of data limitations. For illustrative purposes, however, the data are suitable.

The left–right distribution of the citizens gives a typical picture, found in many Western societies. Many individuals place themselves in the centre. For Switzerland, the mean position is 6.23. In contrast to the citizens, there is no peak at the median position in the Council of States. It is a small chamber, so the histogram is more rugged. More noticeable is the absence of representatives at the far right. The mean position is 5.97. In the National Council, in contrast, a clear skew to the right can be observed. The mean position is 6.66.

The marginality of citizens is as expected from a unimodal distribution: the average distance to other citizens is larger for those at the margins. The same is true for the assumed marginality among members of parliament, with perhaps the outlined skew being visible to some extent. For the generic left–right scale, citizens on the right are under-



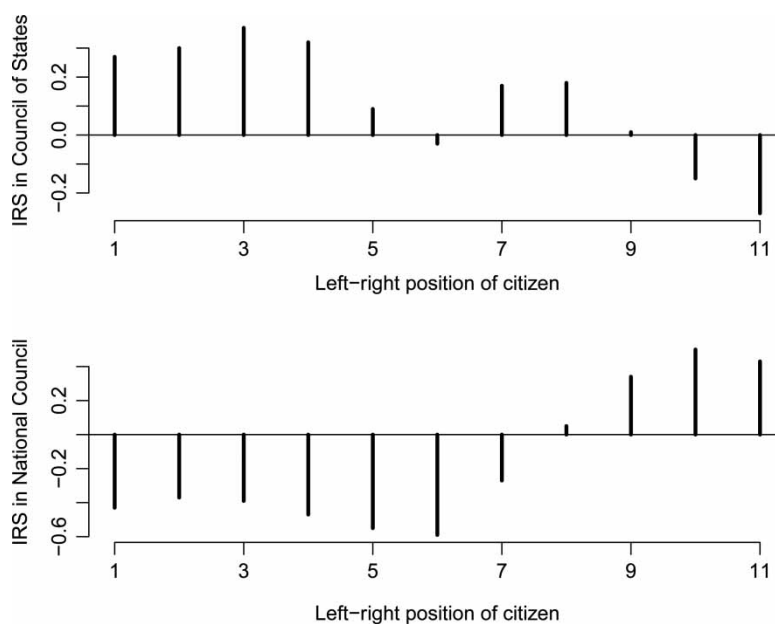
**FIGURE 2**

Left–right distributions in Switzerland

*Notes:* Left–right distributions of the Swiss citizens, the representatives in the Council of States, and the representatives in the National Council.

*Source:* Swiss Election Studies 2007; N = 4106 for the citizens, N = 22 for the Council of States, and N = 123 for the National Council; party weights are used for the two chambers of parliament.





**FIGURE 3**

Individual representation in two chambers

*Notes:* Individual representation scores (IRS) in the Council of States (top) and the National Council (bottom). Given are the representation scores for each position on the left–right scale of the citizens (x-axis). The distance above the horizontal axis indicates the degree of over-representation for individuals with a given left–right placement; the distance below the horizontal axis indicates under-representation for individuals with a given left–right placement. The number of citizens with a particular left–right placement is not visible in these graphs (see Figure 2 instead).

represented by the Council of States; citizens on the right are over-represented by the National Council. For example, an individual on the far left (position 1 on the x-axis, Figure 3) is over-represented by the Council of States, indicated by the positive value of individual representation scores (y-axis). The same individual is under-represented by the National Council, indicated by the negative value of the individual representation score.

Including the two chambers in the example is interesting because whilst the mean of Council of States corresponds to the citizen mean, the mean of the National Council is located to the right of the citizen mean. As is generally the case with individual representation scores, there are correlations between the individual scores and placement in the base variable, in this case generic left–right placements. This relationship is not necessarily of the nature that predicting left–right positions would help predicting individual representation scores. This is the case because the order of values need not correspond. The individual representation scores in the National Council make this visible (Figure 3). There is a one-way link from the base variable—left–right placements—to the individual representation scores, but from individual representation scores it is not necessarily possible to recreate left–right positions. The link between the base variable and individual representation scores requires knowledge of the distributions of the citizens and representatives.

**TABLE 1**  
Education, political behaviour and individual representation

| Variable                                 | Individual Representation |                   |
|--|---------------------------|-------------------|
|  | Council of States         | National Council  |
| Education                                | 0.23 *                    | 0.02 *            |
| ISCO-88 ('class')                        | $p < 0.001$               | $p < 0.001$       |
| Income (relative)                        | 0.03 +                    | (0.01)            |
| Interest in politics                     | 0.09 *                    | 0.10 *            |
| Voted in previous election               | $\Delta = 0.02 +$         | $\Delta = 0.07 +$ |
| Political activities: gave money         | 0.09 *                    | 0.04 *            |
| Discuss politics with friends and family | 0.11 *                    | 0.04 *            |
| Difficult to make vote choice            | (0.02)                    | 0.13 *            |
| Mixed feelings when making vote choice   | 0.04 +                    | -0.14 *           |
| Political knowledge                      | 0.09 *                    | 0.07 *            |

*Notes:* Given in this table are correlation coefficients, or significance levels for categorical variables, and differences in means ( $\Delta$ ) for binary variables. \*  $p < 0.01$ , +  $p < 0.05$  coefficients in brackets are not statistically significant ( $p > 0.1$ ).

In the following paragraphs, representation at the individual level is examined to demonstrate the usefulness of the concept. The first hypothesis outlined stipulates an association between education and interest in politics on the one hand, and individual representation scores on the other. Table 1 also includes other variables that can be thought to affect individual political behaviour in a similar manner. Most of these bivariate associations are statistically significant. Individuals with more education and those with more interest in politics tend to be over-represented on the left–right scale. Substantively, however, the associations are not strong, and statistically the correlation between education and representation in the National Council is not significant. This suggests that the groups identified here are not homogeneous in terms of individual representation scores.

Table 1 suggests that individuals are better represented on the left–right scale if they are better educated, have more interest in politics, are politically involved, discuss politics with friends and family, and are knowledgeable about politics. The associations can also be found for different forms of political participation than the donating money listed in the table. Individuals who find it easier to make a vote choice tend to be better represented, but only by the National Council. By contrast, those who have mixed feelings about the vote choice are under-represented by the National Council, suggesting that mixed feelings may be an indicator of political behaviour that is not conducive to higher representation on the left–right scale.

Not shown in Table 1 is the association for voting frequency. Individuals who vote more frequently are over-represented for both chambers ( $p < 0.05$ ). Moreover, individuals with post-materialist values—as measured by the Inglehart Index (Inglehart 1971)—are over-represented by the Council of States ( $p < 0.00$ ), but materialists are not significantly over-represented by the National Council.

The second hypothesis examines demographically defined groups. Looking at representation on the generic left–right scale, the only groups who can be expected to be over-represented are those who dominate political life generally: older individuals and men. Table 2 includes a number of other possibilities, but there is no clear pattern. If anything, it appears that older individuals are under-represented by the Council of States; women appear to be

**TABLE 2**  
Age and gender and individual representation

| Variable                     | Individual Representation |                    |
|------------------------------|---------------------------|--------------------|
|                              | Council of States         | National Council   |
| Sex (female)                 | ( $p > 0.1$ )             | $\Delta = -0.08^*$ |
| Age                          | $-0.19^*$                 | $0.04^*$           |
| Foreign-born                 | ( $p > 0.1$ )             | ( $p > 0.1$ )      |
| Married                      | ( $p > 0.1$ )             | ( $p > 0.1$ )      |
| Size of municipality (large) | $-0.10^*$                 | $0.04^+$           |
| Rural                        | $\Delta = 0.01^*$         | $\Delta = 0.04^+$  |

Notes: Given in this table are correlation coefficients for continuous variables, significance levels for categorical variables, and differences in means ( $\Delta$ ) for binary variables where significant. \*  $p < 0.01$ , +  $p < 0.05$ , coefficients in brackets are not statistically significant ( $p > 0.1$ ).

under-represented by the National Council. The rural–urban divide may be significant, with rural citizens over-represented in both chambers. There are no statistically significant associations for being foreign-born, or married.

The third hypothesis is concerned with the consequences of individual representation. It stipulates that higher levels of representation, including over-representation, are associated with higher levels of trust in key institutions. This pattern of association can be found for the National Council, but the opposite is the case for the Council of States. Individuals who are better represented by the National Council are more trusting of parliament, political parties or the police. By contrast, individuals who are better represented by the Council of States are less trusting of these key institutions (Table 3).

The picture is different if we examine generalised trust. Individuals who are better represented by the Council of States are more trusting, while those better represented by the National Council are more likely to agree that one cannot be careful enough when dealing with others in society.

Not shown in Tables 1 to 3 is that individuals who feel attached to their local community, their region, their language region, or the country in general are better represented by the National Council. By contrast, those who feel attached to Europe are better represented by the Council of States.

Most of the variables identified as significant in the bivariate analysis remain significant in a multivariate analysis (OLS), combining variables from Tables 1 and 2. In contrast to the bivariate analyses above, discussing politics with friends and family, and actual political knowledge do not appear to be significant for individual representation on the generic left–right

**TABLE 3**  
Individual representation and trust

| Variable                   | Individual Representation |                  |
|----------------------------|---------------------------|------------------|
|                            | Council of States         | National Council |
| Trust in parliament        | $-0.04^*$                 | $0.13^*$         |
| Trust in political parties | $-0.04^*$                 | $0.14^*$         |
| Trust in police            | $-0.10^*$                 | $0.09^*$         |

Notes: Given in this table are correlation coefficients. \*  $p < 0.01$ .

scale. Age has a significant coefficient for the Council of States only, whilst education is a significant albeit substantively probably negligible variable for both chambers.

Multivariate analysis can also be applied to the third hypothesis, which examines the influence of individual representation on trust. The patterns for trust in key institutions reflect the findings of the bivariate analysis: better representation by the National Council is associated with higher levels of trust in key institutions. For the Council of States, the opposite association can be found: individuals who are under-represented by the Council of States trust key institutions more. The results for generalised trust, by contrast, are different from the pattern outlined above. Once controlling for other covariates (age, education, sex), higher levels of individual representation in both chambers are associated with higher levels of generalised trust. In all instances, the substantive impact of individual representation is significant.

The empirical example suggests that the two chambers in Switzerland represent different groups of society on the left–right scale in a particular way. With one chamber being close to the citizen mean and the other right-leaning, different groups are represented differently by the two chambers. While the way this translates into trust in key institutions varies, higher levels of individual representation in both chambers are associated with higher levels of generalised trust.

## Conclusion

This article has introduced a new way to conceptualise political representation. Individual representation scores compare the position of individuals vis-à-vis other citizens, and their position vis-à-vis representatives. By approaching political representation this way, it is possible to calculate representation scores for individuals. This way it becomes possible to address new questions of representation that are inaccessible with conventional approaches of dyadic and collective representation. Individual representation, however, is not in itself preferable to other approaches of political representation: it is a complement to existing perspectives, opening the possibility for addressing new questions, or old questions from a new perspective.

In contrast to conventional approaches, using individual representation scores we can start with an issue domain in which to examine political representation. For example, we can look at representation on a left–right scale, or on attitudes toward environmental protection. The groups that are under-represented can be defined in a flexible manner, because representation scores are calculated as the property of individuals. This way, multiple group membership can be addressed, opening up the way for studies addressing complex expressions of inequality. Similarly, individual representation scores may be used to test the question whether individuals who are better represented also feel better represented. It is commonly held that this is the case (Norris 2004), but using individual representation scores this assumption can be tested statistically. The empirical example suggests that individual representation and generalised trust are associated, further supporting the position that objective and subjective levels of political representation may be linked.

While this article has focused on the individual representation of citizens, it is possible to reverse the perspective and look at individual representatives. This way, the question whether the position of a representative is in line with the population appears in a new light. Specifically, individual representation scores give weight to less common positions among the citizens which also deserve representation. In this sense, we can separate party politics (and the concern for the median voter) from representation where every citizen has a right to be

heard. At the same time, individual representation scores take into consideration the distributions of the citizens and representatives, and marginal voices are not over-emphasised.

The empirical example included in this article for purposes of illustration could demonstrate the usefulness of individual representation as a complement to existing approaches. Individual representation is suitable for issue positions as examined in this article, but may also be applied to agenda priorities, which can be treated the same way. In this sense, individual representation scores are a useful way to examine inequalities in political representation.

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