

VAA's Impact on the Quality of Political Representation

Jan Fivaz (University of Bern, KPM; jan.fivaz@kpm.unibe.ch)
Daniel Schwarz (University of Bern, KPM; daniel.schwarz@kpm.unibe.ch)
Andreas Ladner (University of Lausanne, IDHEAP; andreas.ladner@unil.ch)

September 2016

Paper presented at the ECPR General Conference, Charles University in Prague,
Prague, 7 - 10 September 2016

Section S04: Advancing Research on Voting Advice Applications – Studying Issue Voting,
Party/Candidates Positioning and Democratic Representation

Panel P463: Voting Advice Applications and Multi-Level Representation: Dimensionality, Issue
Congruence and the Representative Deficit

Preliminary draft: Please do not cite without the authors' permission

Keywords

Political representation; issue representation; proximity voting.

1. Introduction

Previous research has shown strong indications that the use of Voting Advice Applications (VAAs) has an impact on both political participation and on electoral behaviour. Several studies (e.g., Fivaz and Nadig 2010; Garzia et al. 2014; Gemenis and Rosema 2014; Germann and Gemenis 2014) established that the use of VAAs motivates to go to the polls and leads to higher voter turnouts. Although the mobilising effect is not huge (typically 1-4%) it is often accompanied by an especially strong mobilisation among young voters and voters with below average political knowledge.

Regarding the impact of VAAs on the electoral decision-making process previous research presents a similar picture. Based on a large number of studies using data from multiple countries and elections it seems well-established that VAAs affect voters using such applications in their electoral decision-making. The extent is somewhat unclear – or at least differs largely between countries (e.g., Ladner et al. 2010; Ladner et al. 2012; Ladner et al. 2012; Pianzola 2014a; Vassil 2012; Walgrave et al. 2008). Whereas in Finland only 3% of the users have been influenced in their electoral decision by the advice they received from a VAA, in other countries the numbers are higher: 6% in Germany, 10-15% in the Netherlands, and almost 70% in Switzerland (Ladner and Fivaz 2012). Besides different methodological approaches between the studies, the different electoral systems may also be responsible for large parts of the observed cross-country variance. In Switzerland voters can vote both for parties and directly for individual candidates from different parties (by splitting their votes between parties). Thus, being influenced by a VAA does not mean necessarily that a Swiss voter switched completely from one party to another, it might well be that he or she only switched partially or distributes the votes over more parties.

In a nutshell, previous research on VAA impact has shown that VAAs influence their users in the following ways: they foster voter turnout and also have effects on party choice. It is, however, somewhat surprising that most studies – with the exception of a few theoretical contributions (Anderson and Fossen 2014; Fossen and Anderson 2014; Fossen and van den Brink 2015) – solely focus on the impact on the electoral behaviour of voters, but do not explicitly address questions related to the potential impact on the outcome of the representational processes as a whole. Questions like whether the use of VAAs leads to better electoral decisions (i.e., closer to the personal preferences) which would contribute to the improvement of political representation have been neglected by VAA research.

This paper intends to tackle this research gap by addressing the following research question: *Do VAAs improve the quality of the representational process?* The present state of our paper represents only a tentative first draft. Our analysis applies a simplifying but straightforward approach. We analyse the congruence of political parties with their voters on a number of policy issues. This congruence serves as our depended variable, whereas the use of a VAA is our central explanatory variable. Regarding the operating mode of VAAs and the above mentioned previous research results we expect that voters using a VAA exhibit on average a stronger positional congruence with the party they voted for compared to voters who did not use VAAs at all. If we find evidence supporting this hypothesis this would mean that VAAs not only assist voters with their individual decision-making but also contribute to the overall quality of the representational process by minimising the political distance between citizens and elected political elites.

Before we present our analysis, findings and conclusions the following section briefly outlines the theoretical background of our paper.

2. Theoretical background: VAAs and the quality of representative democracies

Modern democracies can be identified by a number of institutional features such as general suffrage, civil and political rights like the freedom of speech or freedom of the press, the rule of law, free and competitive elections with multiple parties and, crucially, by an elaborated system of political representation safeguarding that parliament and government implement policies according to the will of the people.

Even after almost 50 years Pitkin (1967: 209) offers still one of the catchiest and most influential definition of political representation:

“Representation here means acting in the interest of the represented, in a manner responsive to them. The representative must act independently; his action must involve discretion and judgement; he must be the one who acts.”

Two aspects of Pitkin’s definition stand out: First, it identifies responsiveness as the central element of political representation. And second, it emphasises that the representative has to represent actively. A representative is not representing specific groups of voters because he or she is of the same age, gender or has the same social background. He or she is only representing a group of citizens by acting actively in the interest of this group (e.g., by voting in accordance with the interests of the represented voters in parliamentary votes).

Pitkin’s concept of substantial representation – standing for a representation of political issues, interests, preferences or political values in contrast to a descriptive representation by socio-demographic characteristics as age, gender, educational or income level – was transferred by Powell (2004) into his well-known concept of the “chain of responsiveness”. Based on this concept Powell outlines an ideal process of democratic responsiveness. Democratic responsiveness is reached when the representational system induces parliaments and governments to form and implement policies consistent to the citizens’ wishes. The better this process works the better the quality of the specific democratic system (Powell 2004: 91).

According to Powell’s concept the transformation of citizens’ wishes into public policies occurs over four linked steps: 1. Citizens’ preferences; 2. Citizens’ voting behaviour; 3. Selecting policy makers (election outcomes / government formation); 4. Outcome / implemented public policies.

These four steps are linked by the citizens’ process of electoral decision-making and voting (linkage 1 ⇒ 2), the aggregation and transformation of these votes into seats in parliament and government according to the regulations of the electoral system and the process of government formation (linkage 2 ⇒ 3), and finally the process of policy making between elections (linkage 3 ⇒ 4). A good matching between the citizen’s preferences and the implemented public policies alone does not necessarily indicate a proper democratic responsiveness. In a democracy a high-quality responsiveness cannot depend on good luck, advantageous circumstances or solely the good will of policy makers. It rather requires institutional arrangements that bear incentives for policy makers to

anticipate and realise citizens' preferences. Furthermore, incentives for elected officials to keep their electoral pledges and hold them accountable for their actions in parliament and government after an election are needed. Only if all these institutions and procedures are in place and properly working, the system will produce systematically democratic responsiveness (Powell 2004).

VAA fit quite well into the theoretical frameworks provided by Pitkin (1967) and Powell (2004). To guarantee a properly working system of democratic representation and responsiveness the quality and the amount of available information is key. Without political transparency and availability of reliable and comprehensive information on candidates and parties and their political positions as well as information about the activities of the elected officials during the legislative period an effective monitoring and sanctioning of incumbents and an educated electoral decision-making are not possible (Lupia 2003; Müller and Meyer 2010). Services and data provided by VAAs support the proper functioning of democratic responsiveness in two ways. First, they facilitate what Kiewiet and McCubbins (1991) call the *ex ante* control (screening of candidates) and second, the *ex post* control (monitoring of elected officials).

The present paper focuses solely on the former (*ex ante* control). The latter (*ex post* control) is not less important, but has already been addressed by a number of recent publications which established the potential of VAA data in combination with parliamentary voting records in order to strengthen democratic control of MPs (Fivaz and Schwarz 2007; Fivaz et al. 2014; Schädel et al. 2016; Schwarz et al. 2010).

With regard to the *ex ante* control – the selection of candidates by voters in the run-up of an election – VAAs provide voters with unprecedented possibilities to screen and select the candidates according to their own political preferences (Lau and Redlawsk 2006: 262). This is the point where our paper steps in. If it is true that VAAs improve the level of information dramatically and with regards to previous VAA research, which found clear evidence that VAAs are taken seriously and have an impact on their users' electoral decision (see Section 1), it is to expect that voters using a VAA exhibit a higher policy congruence with the candidates or parties they voted for, compared to voters who have not used a VAA.

3. Data

According to our research question we intend to measure the impact of VAAs on the quality of representational processes by using the congruence of political positions between voters (including VAA users and non-users) and the political parties they have voted for. We therefore need comparable data on the political preferences both of the political parties and of the voters. Our analysis relies on two surveys conducted around the 2015 federal elections in Switzerland.

The first survey was conducted by the Swiss VAA smartvote (www.smartvote.ch) among all candidates of the 2015 elections and provides the positions of the political parties. With regard to the electoral system, which allows not only to vote for parties but also directly for specific candidates, any meaningful operative design of VAAs in Switzerland is candidate-centred (in contrast to VAAs in most other countries providing their services on party level). The smartvote candidate survey contained 75 questions on political issues. The survey started in June 2015 and ended with

the election day in October 2015. The vast majority of candidates answered the questionnaire by mid-September. All candidates running for office were offered participation in the survey. Overall, there were 3,873 candidates out of which 3,267 or 84.4% answered the smartvote questionnaire. Swiss elections are characterised by the large number of political parties competing for seats in parliament. Many parties are very small with vote shares below 1% and also running only in one or two of the 26 electoral districts. Therefore, we restrict our analysis to the seven main parties running a nationwide campaign and reaching a vote share of at least 4%. Response rates among these seven main parties range from 80.8% to 95.9% and are far higher than usual scientific candidate surveys. Regarding this extremely high response rate the data quality is very close to a full population sample which is why we abstain from applying additional weights to compensate for non-respondents (for details on the response rates see Appendix 1). The positions of the seven political parties are calculated based on the answers of the candidates from each party.

The second survey we rely on was conducted by the Swiss Electoral Studies (Selects; www.selects.ch) as a post-electoral survey among voters of the 2015 elections. For the first time the Selects questionnaire contained not only the question whether a voter had used smartvote as information source before the election but also a battery of nine issue questions which was retrieved from the smartvote candidate questionnaire. Additionally, the voters had been asked about the political party they voted for in the 2015 elections. This allows for a direct comparison of the political positions of parties and their voters, bypassing the methodological challenges which would have occurred if we had used VAA voter data.¹

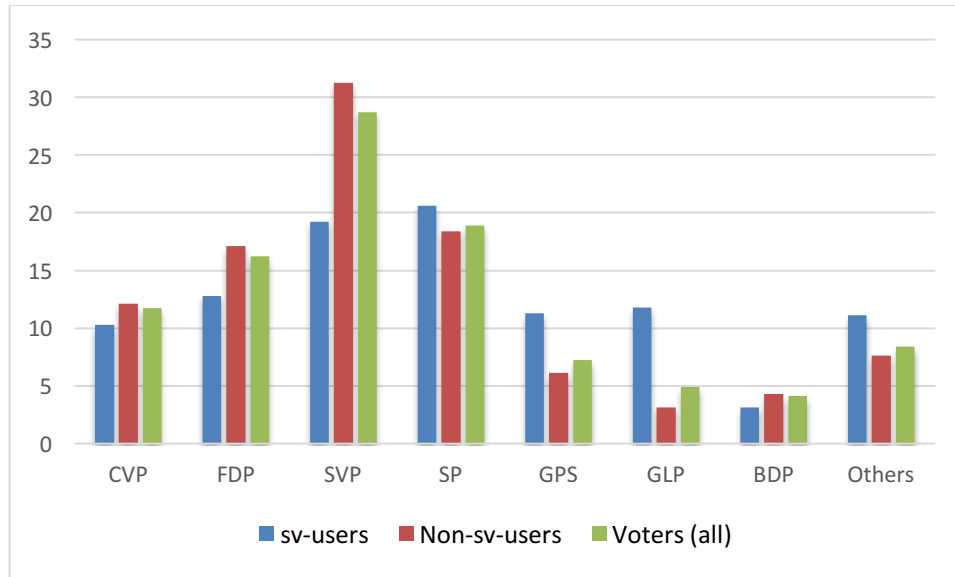
We apply several restrictions to the Selects data set. First, we only include voters (the sample also contains non-voters) and second, we include only voters who have answered all nine issue questions. As further restriction, as already mentioned, the analysis comprises the voters of the seven main parties only. At the end our data sample contains 3,333 voters – among these 582 have been smartvote users. In contrast to the candidate data we apply weights to the voter data in order to compensate for specific biases. Selects offers several pre-defined weights of which we apply two: the so-called design weight to compensate for biases coming from the data collection process, and the party choice weight to compensate for the different response rates among the specific party voters (for details see Lutz 2016).

A key element in our analysis is the distinction between all voters and the sub-sample of smartvote-using voters. Previous research shows that VAA users usually differ from non-users in several respects: In general, women are under-represented and young voters, voters with a higher educational and income level are over-represented. Moreover, voters with a higher political interest and knowledge are more frequent to use VAAs (see Ladner 2012; Marschall 2014). We find the same pattern in our data, albeit with significantly smaller differences between smartvote users and non-users than reported in previous studies (e.g., Ladner et al. 2010). Appendix 2 contains a detailed comparison of the two sub-groups with regards to both socio-demographic and political characteristics like political interest, knowledge or the left-right self-placement. Graph 1 below shows the differences between smartvote users and non-users regarding party choice. We observe the

¹ Pianzola (2014b) shows in detail the pitfalls of using VAA voter data (e.g., self-selection processes, lack of representativeness) and provides also one possible approach to treat these shortcomings in the data by applying sophisticated statistical procedures.

expected bias that voters of the largest party – the SVP (right-conservative) – are clearly under-represented, while voters of the rather small and new GLP (centre-left) are clearly over-represented among smartvote users. These distortions in the data are not directly compensated for (e.g., with an additional weight or other statistical measures). To meet possible concerns in this direction we use categorised left-right positions of the voters as covariates in our regression models.

Graph 1: Party choice by voters, smartvote-users, and non-smartvote users (in %)



Source: Source: Selects 2015; post-electoral voter survey; applied weights: survey design weight and party choice weight; N = 3,394.

Notes: CVP = Christian Democrats (centre); FDP = Liberals (centre-right); SVP = Swiss People's Party (conservative/right); SP = Social Democrats (left); GPS = Greens (left); GLP = Green-Liberals (centre-left); BDP = Conservative Democratic Party (centre).

4. Analyses: parties, voters and VAA users compared

Both the Selects voter survey 2015 and the smartvote candidate survey 2015 contained nine issue questions in identical form. Thus the combination of the two datasets allows to conduct a direct voter-party comparison based on the following nine policy issues:²

1. Do you support a raise in the retirement age for both women and men (e.g. to 67)?
2. Do you approve that the federal government provides financial support for child care outside the family?
3. Should the naturalisation process for third-generation foreigners be simplified?

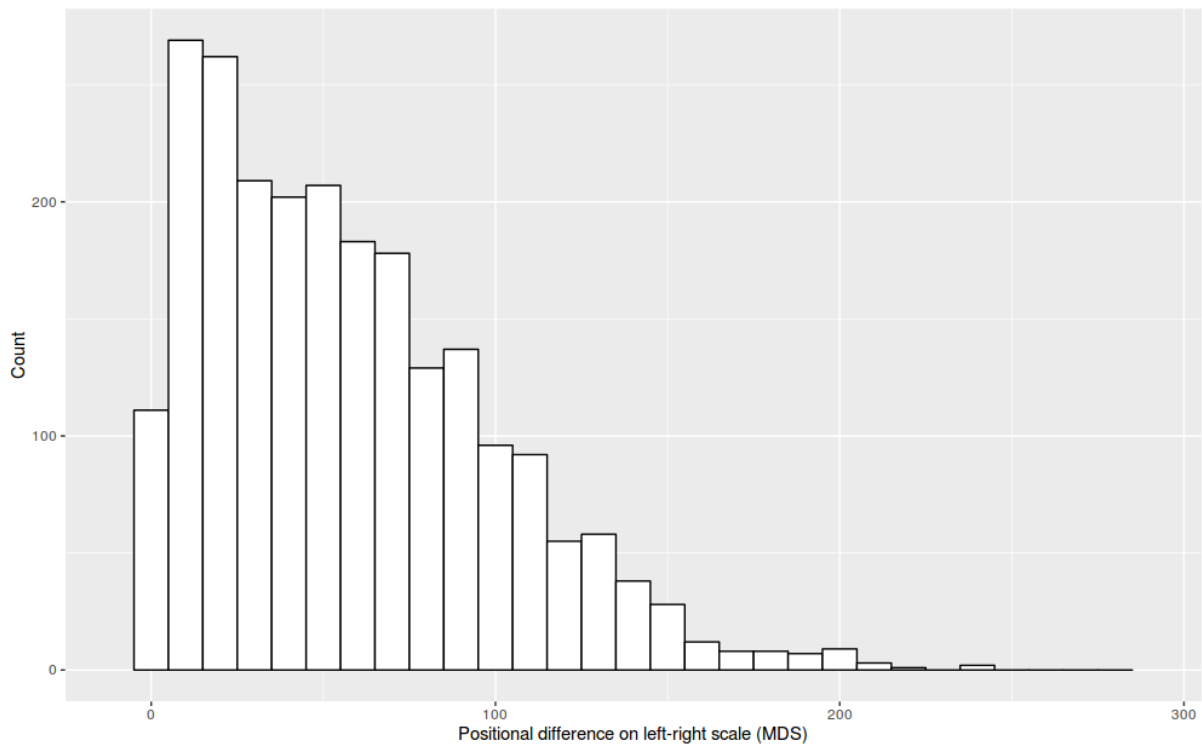
² Questions 1-8 contained the four answer options: „Yes“, „Rather yes“, „Rather no“ and „No“, whereas question 9 offered five answer questions: „Considerably more“, „More“, „The same amount“, „Less“ and „Considerably less“.

4. Do you think Switzerland should accept an increased number of refugees directly from crisis regions for which the United Nations High Commissioner for Refugees (UNHCR) needs host countries (what is called quota refugees)?
5. Should the banking secret within Switzerland be abolished towards Swiss tax authorities?
6. A popular initiative demands that nuclear energy be completely abandoned by 2029. Are you in favour of this?
7. In relation to the redevelopment of the Gotthard road tunnel, Parliament resolved upon the construction of a second tunnel tube. Are you in favour of this?
8. Resolutions made by the European Court of Human Rights (ECHR) are binding for Switzerland. Do you think that this is justified?
9. Social services budget: Should Switzerland spend considerably more, more, the same amount, less or considerably less?

Using the (recoded) answers to the nine policy issues, we calculated two measures for the positional difference between voters and the party they voted for. The first measure is based on Multidimensional Scaling (MDS; also known as principal coordinates analysis³) which provides a political space with two main dimensions. Whereupon, we are mainly interested in the first dimension coordinates which represents an approximation of the dominant left-right dimension in Swiss politics (Benoit and Laver 2006; Hug and Schulz 2007). The range of the calculated coordinates lies between -125.8 and 165.4. A party's position on this left-right axis is defined as the arithmetic mean of the MDS coordinates of the party's candidates. The positional difference on the left-right axis is the absolute difference between the party coordinate (mean of candidates' coordinates) and the coordinate of the individual voter of that party. Figure 2 shows the histogram with the distribution in the first dependent variable. The histogram shows the expected skewed picture: the number of cases decreases with increasing distance of the positional distance between voters and the party they elected.

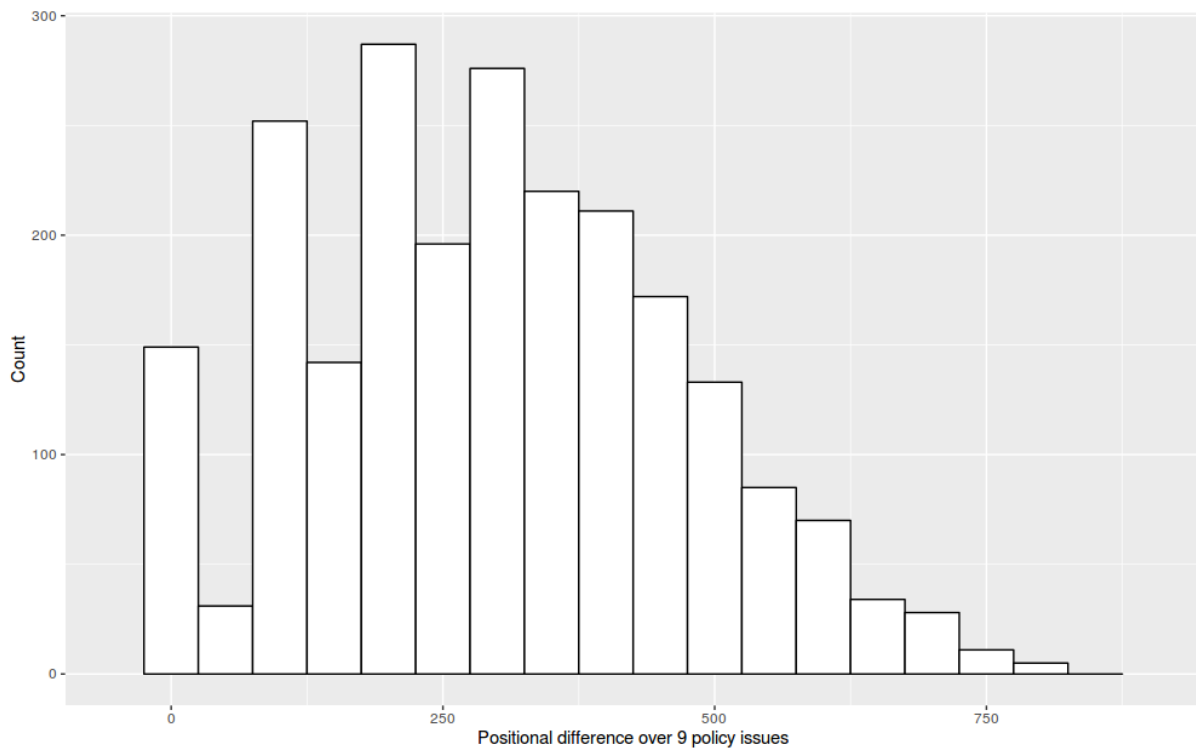
³ Based on the Euclidean distance matrix of the answers of candidates and voters to the nine policy issues, MDS generates a set of coordinates such that the distances derived from these coordinates approximate as well as possible the original distance (see Cox and Cox 2001). To do so, we used the basic "cmdscale" function in R.

Figure 2: Distribution in the dependent variable "Positional difference on left-right scale (MDS)"



The second measure is a direct comparison of the answers to each of the nine policy issues between the voter and the party he or she voted for. In a first step we calculated for each question and party the median answer ("party answer"). Then for each of the nine questions the absolute difference between the voter position and the party answer was calculated and finally totalized (which produces an index of issue-based difference ranging from 0 to 900). The histogram of the distribution in the second dependent variable (Figure 3) shows a somewhat less skewed picture compared to Figure 2, but we still observe the decreasing pattern with increasing positional difference.

Figure 3: Distribution in the dependent variable “Positional difference over 9 policy issues”



In this paper we are addressing the question, whether voters using a VAA vote for parties which are positioned closer to their political preferences than voters not using a VAA. We ran a couple of linear regression models on the two dependent variables measuring the voter-party distance. In these models we integrated the following control variables:

- **Political interest:** The respondents were asked about their general interest in politics. The values range from 1 (not at all interested) to 4 (highly interested). We expect that politically interested people are better informed about the shape of the political space and the positions of the parties therein. Thus the higher the political interest the smaller the expected positional distance to the elected party.
- **Information sources:** The Selects survey contains a set of binary questions asking about specific information sources voters used in the run-up to the elections in order to get informed about the candidates and parties. The five items included party advertising, party events, broadcasting programmes, web/social media and, as a specific category, the use of smartvote. From these five options we constructed an “information source intensity” index which ranges from 0 (no information source used) to 5 (all named sources used). We expect that the more information sources people use the better informed they are about the shape of the political space and the positions of the parties therein. Thus the higher the information source intensity the smaller the expected positional distance to the elected party.
- **Use of smartvote:** The crucial variable to answer the research question is the binary question if the voter has used smartvote in the run-up to the elections. We hypothesise that

smartvote users are better informed about party positions and that they show a smaller positional distance to the party they voted for.

- **District size:** In the 2015 elections, the number of seats in the electoral districts (Swiss cantons) varied between 1 and 35. Although a PR voting system is applied throughout, in small districts the PR system approximates the effects of majority voting systems (e.g., the number of running candidates/parties is limited, as well as the number of candidates with a real chance to get elected) (Cox 1990, 1997; Carey and Shugart 1995). Because of the restricted party supply, we expect larger positional distances in smaller districts.
- **Left-right position:** In order to analyse the effect of the voter's left-right position on the positional congruence we use either the voters' MDS coordinate on the first dimension calculated from the nine policy issues (see above) or the self-placement of the voter on a 11-point scale. Both variables are recoded in three categories of equal range (left, centre, right) which allows to single out the effect for each of the three groups (reference category = centre).

Additionally, the models include three socio-demographic control variables: **Gender** (1=male, 2=female), **age** (in years) and **language** (reference category = German-speaking voters).

Table 1 depicts the results of all four linear regression models. Models 1 and 2 share the dependent variable according to MDS coordinates, models 3 and 4 use the totalised positional distance over the nine policy issues. In all four models, the left-right position of the voters exhibits the largest effects on positional congruence: Both left- and right-wing voters show a lower distance to the positions of the elected party than voters who are positioned (or position themselves) in the centre of the political space.

Throughout all four model estimations the use of the smartvote VAA has a significantly negative effect at least at 10% level on positional difference.⁴ This corroborates our central expectation that voting decisions of people who use VAAs do have a closer match with their personal political preferences.

Another significant variable is political interest which leads as expected to a smaller positional distance between a voter and the elected party. Finally, in three models we find also a significant impact of the gender variable with female voters exhibiting smaller positional distances. Since this covariate was not in the primary focus of our analysis we can only speculate about the reasons. From previous VAA research we know that female voters are more insecure regarding their electoral choice. In a similar vein, female VAA users take the received voting advice more seriously into consideration than their male counterparts (Fivaz and Nadig 2010) and thus make their electoral decision on a better informational basis. This could also contribute to the significant effect of gender in our analysis. However, based on our data we are not in the position to present empirical evidence for this.

⁴ Additionally, estimating models with robust standard errors (using John Fox's "summaryR.lm" function) did not change the picture.

To sum up the results, the effects in the estimated models confirm to a large extent the hypotheses and expectations, particularly regarding the positive effect of VAA usage on political congruence between the electorate and the elected.

Table 1: OLS regression models to predict positional difference between voters and elected party

	Difference on left-right scale (MDS)		Difference over 9 policy issues	
	(1)	(2)	(3)	(4)
Gender: female	-4.759** (1.814)	-6.453*** (1.862)	-9.098 (6.904)	-20.505** (7.040)
Age	0.102• (0.056)	0.062 (0.057)	0.437 (0.212)	0.028 (0.217)
Language: F	-0.978 (2.404)	0.981 (2.456)	-16.711• (9.150)	-12.710 (9.283)
Language: I	0.312 (2.814)	1.775 (2.877)	7.723 (10.706)	11.666 (10.874)
Political interest	-2.286• (1.220)	-2.601* (1.246)	-17.422*** (4.642)	-20.144*** (4.709)
Information source intensity	1.320 (0.814)	1.298 (0.836)	5.184• (3.097)	4.133 (3.158)
smartvote user	-6.221* (2.664)	-6.520* (2.720)	-18.601• (10.137)	-23.202* (10.282)
District size	-0.037 (0.078)	-0.052 (0.080)	-0.091 (0.298)	-0.370 (0.304)
Left-right position (MDS): left	-17.663*** (2.013)		-170.025*** (7.658)	
Left-right position (MDS): right	-28.579*** (2.433)		-117.203*** (9.258)	
Left-right position (self-placement): left		-17.620*** (2.332)		-171.035*** (8.815)
Left-right position (self-placement): right		-10.152*** (2.128)		-15.147• (8.042)
Constant	65.208*** (5.765)	66.411*** (6.013)	331.545 *** (21.936)	344.406*** (22.727)
Observations	2,064	2,064	2,064	2,064
Adj. R ²	0.084	0.038	0.221	0.193

Note: The models were estimated using the "lm" function in R. OLS coefficients with standard errors in brackets. Significance levels: *** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$ • $p < 0.1$

5. Conclusions

Our findings presented in this paper show that the positional congruence between voters and the elected political party is significantly smaller if the voter previously used a VAA. Considering the tentative character of this paper, we are fully aware that our results are preliminary. Nevertheless, in particular regarding the ongoing debate about the dramatic alienation between citizens and their political elites as well as about the crisis of current representative democracies (e.g., Merkel 2015; Schmitter 2015) we consider the finding both relevant and instructive for the future debate. Our results show that the use of VAAs leads to a reduction in the positional distance between citizens and elected elites and thus that VAAs contribute to the quality of contemporary representative democracies.

There is, however, much room for methodological improvement. We would like to emphasise two aspects: First, we abstained from applying weights (e.g., weights for the party choice) to the data used in our regression models. Even if we do not expect substantial changes (based on previous analysis of this data), we will check this point in a next version of the paper. Second, we should try to relax the restriction to the nine smartvote issues included in the Selects survey and thematically broaden our analysis. This could lead to much more detailed insights into the quality of representation of MPs regarding the issue preferences of their voters. In this case we would need to include smartvote voter data which bears a couple of known methodological challenges (e.g., lack of representativeness and self-selection processes). Pianzola (2014b) has shown a possible way to overcome these challenges. Also other methodological approaches could be applied (e.g., matching procedures based on the nine identical questions in both surveys – the smartvote voter survey and the representative Selects sample).

Apart from these methodological aspects future research could benefit from an enlarged perspective. A growing number of studies argues that the contemporary democracies have become “unequal” because the responsiveness of the political elites does no longer reflect the preferences, wishes and interests of voters from the middle and especially low-income classes. According to these studies representation works properly for the rich only and increasingly neglects low-income households (see Bartels 2008; Giger et al. 2012; Gilens 2012; 2015; for Switzerland see Lloren et al. 2015; Rosset 2013). By including the voters’ income level into our analysis we could test whether the use of VAAs leads to more equal representation or – given the importance of political interest and knowledge in our analysis – aggravate the problem.

Appendix 1: Candidates using smartvote in the 2015 Elections

Party	C N	N	sv-C %
CVP	462	386	83.5
FDP	467	448	95.9
SVP	439	371	84.5
SP	502	464	92.4
GPS	388	341	87.9
GLP	363	330	90.9
BDP	229	185	80.8
Total main seven parties	2,850	2,525	88.6
Other parties	1,023	742	72.5
Total	3,873	3,267	84.4

Source: smartvote.ch

Notes: C = candidates; sv-C = candidates using smartvote.

Appendix 2: Voters and smartvote (sv) users compared

	sv-V	Non-sv-V	V
Gender (%)			
Female	42.8	49.4	48.0
Male	57.2	50.6	52.0
Age groups (%)			
18-24	19.5	5.8	8.6
25-34	24.0	8.8	11.9
35-44	20.5	13.3	14.8
45-54	19.1	21.6	21.1
55-64	10.2	20.0	17.9
65-74	5.7	18.8	16.1
75+	1.0	11.7	9.5
Educational level (%)			
Compulsory education	3.6	6.4	5.8
Basic vocational training	0.3	1.3	1.1
Vocational education	20.5	36.6	33.2
Diploma school	10.9	9.4	9.7
High school	8.9	5.9	6.6
Higher vocational training	17.5	18.8	18.5
University of applied science	16.6	7.7	9.5
University	21.7	13.9	15.5

	sv-V	Non-sv-V	V
Language (%)			
German	85.4	74.0	76.4
French	12.9	21.3	19.6
Italian	1.7	4.6	4.0
Interest in politics (%)			
Very interested	32.6	23.4	25.3
Rather interested	53.3	59.2	58.0
Rather not interested	13.6	16.1	15.6
Not interested at all	0.4	1.2	1.1
Political knowledge (%)			
Low	1.5	3.0	2.7
Rather low	8.6	12.8	11.9
Medium	21.2	26.0	25.0
Rather high	38.5	36.3	36.8
High	30.2	21.9	23.7
Party choice (%)			
CVP	10.3	12.1	11.7
FDP	12.8	17.1	16.2
SVP	19.2	31.3	28.7
SP	20.6	18.4	18.9
GPS	11.3	6.1	7.2
GLP	11.8	3.1	4.9
BDP	3.1	4.3	4.1
Other parties	11.1	7.6	8.4
Left-right (self-placement) (%)			
Left	12.0	8.5	9.3
Centre-left	24.4	14.8	16.8
Centre	34.8	35.4	35.2
Centre-right	22.8	30.2	28.7
Right	6.0	11.1	10.0

Source: Selects 2015 post-electoral voter survey; applied weights: survey design weight and party choice weight.

Notes: sv = smartvote; V = Voters; sv-V = voters using smartvote; Non-sv-V = voters not using smartvote.

N = 3,217-3,484.

Appendix 3: Party and voter positions on policy dimensions and Selects/smartvote issues

	CVP			FDP			SVP			SP			GPS			GLP			BDP		
	C	V	sv-V	C	V	sv-V	C	V	sv-V	C	V	sv-V	C	V	sv-V	C	V	sv-V	C	V	sv-V
MDS 1 st dimension (left-right)	19.9 (43.0)	13.5 (50.7)	-4.0 (57.1)	70.8 (46.6)	24.2 (47.9)	18.0 (48.4)	129.2 (30.7)	61.5 (49.3)	63.7 (49.3)	-109.2 (21.8)	-47.5 (47.3)	-52.2 (39.6)	-107.6 (19.5)	-63.2 (43.6)	-76.6 (32.7)	-45.6 (34.5)	-35.2 (40.4)	-47.0 (39.8)	19.9 (42.6)	13.1 (47.9)	-0.02 (50.2)
MDS 2 nd dimension	36.5 (33.4)	1.1 (40.4)	14.9 (39.9)	46.0 (35.2)	8.2 (42.2)	17.7 (44.7)	-7.8 (34.1)	-26.0 (40.8)	-28.5 (41.4)	-19.4 (17.3)	-2.5 (38.4)	9.5 (40.9)	-13.0 (22.9)	-4.5 (33.0)	7.3 (32.7)	37.0 (27.4)	6.9 (36.7)	11.2 (36.8)	31.8 (41.7)	-7.9 (41.8)	13.7 (39.2)
Do you support a raise in the retirement age for both women and men (e.g. to 67)?	49.2	39.5	49.7	90.2	45.6	53.1	65.8	29.9	36.4	6.2	31.6	37.7	18.1	35.3	42.9	89.5	50.0	53.7	64.7	42.3	43.1
Do you approve that the federal government provides financial support for child care outside the family?	90.6	56.2	59.4	43.5	56.5	63.2	17.6	34.8	34.2	98.9	80.9	89.1	97.7	81.0	81.0	88.5	70.5	73.5	81.8	42.7	29.8
Should the naturalisation process for third- generation foreigners be simplified?	78.8	72.6	76.3	58.8	76.1	78.1	15.7	42.4	34.4	99.6	94.6	96.8	99.7	95.6	96.2	95.5	87.9	83.9	64.0	68.7	78.9
Do you think Switzerland should accept an increased number of refugees directly from crisis regions for which the United Nations High Commissioner for Refugees (UNHCR) needs host countries?	70.6	59.4	67.9	37.3	51.1	43.4	6.9	18.7	17.7	98.7	85.6	87.2	99.1	87.8	90.1	89.1	69.2	71.0	54.3	56.3	86.2
Should the banking secret within Switzerland be abolished towards Swiss tax authorities?	15.9	42.9	39.8	6.9	32.4	30.3	2.4	27.6	26.9	95.1	72.1	68.8	94.1	77.2	77.9	30.8	66.1	69.5	33.9	53.3	61.4
A popular initiative demands that nuclear	31.6	69.3	66.9	16.4	58.5	62.4	7.2	50.2	42.0	98.9	90.8	92.9	99.7	98.4	100.0	93.4	89.8	89.0	56.2	74.8	85.0

	CVP			FDP			SVP			SP			GPS			GLP			BDP		
	C	V	sv-V	C	V	sv-V	C	V	sv-V	C	V	sv-V	C	V	sv-V	C	V	sv-V	C	V	sv-V
energy be completely abandoned by 2029. Are you in favour of this?																					
In relation to the redevelopment of the Gotthard road tunnel, Parliament resolved upon the construction of a second tunnel tube. Are you in favour of this?	89.5	78.9	87.6	93.1	82.0	84.8	94.1	79.9	81.1	7.3	52.0	54.1	1.5	26.6	20.1	13.9	49.4	50.3	90.3	79.6	99.0
Resolutions made by the European Court of Human Rights (ECHR) are binding for Switzerland. Do you think that this is justified?	88.9	63.2	76.6	72.1	63.0	75.3	6.4	31.5	30.0	98.7	85.3	89.1	98.5	88.2	93.7	94.6	90.4	87.5	84.9	64.1	77.9
Are you in favour of an increase or decrease of social services expenditures?	40.7	47.6	50.3	14.9	38.6	32.2	8.8	27.8	25.3	92.2	75.1	76.8	84.0	77.1	83.8	30.2	45.7	42.1	31.6	45.5	63.5

Source: smartvote.ch; Selects 2015 post-electoral voter survey; applied weights: survey design weight and party choice weight.

Notes: sv = smartvote; C = Candidates (smartvote 2015); V = Voters / sv-V = voters using smartvote(both Selects 2015); MDS: Mean of MDS standard coordinates (standard deviation in brackets); Policy issues: Average position / equals the percentage of yes-votes (original 4 answer options recoded to yes-no option, yes=100, no=0).

N (candidates)= 3,282-3,300; N (voters) = 3,126-3,333.

References

- Anderson, Joel and Thomas Fossen (2014). Voting Advice Applications and Political Theory: Citizenship, Participation and Representation. In: Marschall, Stefan and Diego Garcia (eds.). *Matching Voters with Parties and Candidates. Voting Advice Applications in Comparative Perspective*. Colchester: ECPR Press: 217-226.
- Bartels, Larry M. (2008): *Unequal Democracy. The Political Economy of the New Gilded Age*. Princeton, Princeton University Press.
- Benoit, Kenneth and Michael Laver (2006). *Party Policy in Modern Democracies*. London/New York: Routledge.
- Carey, John M. and Matthew Shugart Soberg (1995). Incentives to Cultivate a Personal Vote: A Rank Ordering of Electoral Formulas. *Electoral Studies*, 14(4): 417-439.
- Cox, Gary W. (1990). Centripetal and Centrifugal Incentives in Electoral Systems. *American Journal of Political Science*, 34(4): 903-935.
- Cox, Gary W. (1997). *Making Votes Count. Strategic Coordination in the World's Electoral Systems*. Cambridge, Cambridge University Press.
- Cox, Trevor F. and Michael A.A. Cox (2001). *Multidimensional Scaling*. Boca Raton, FL: Chapman & Hall/CRC Press.
- Fivaz, Jan, Tom Louwerse and Daniel Schwarz (2014). Keeping Promises: Voting Advice Applications and Political Representation. In: Marschall, Stefan and Diego Garcia (eds.). *Matching Voters with Parties and Candidates. Voting Advice Applications in Comparative Perspective*. Colchester: ECPR Press: 197-215.
- Fivaz, Jan and Giorgio Nadig (2010). Impact of Voting Advice Applications (VAAs) on Voter Turnout and Their Potential Use for Civic Education. *Policy & Internet*, 4(2): 167-200.
- Fivaz, Jan and Daniel Schwarz (2007). *Nailing the Pudding to the Wall - E-Democracy as Catalyst for Transparency and Accountability*. Paper presented at the International Conference on Direct Democracy in Latin America, Buenos Aires, 14-15 March 2007.
- Fossen, Thomas and Joel Anderson (2014). What's the Point of Voting Advice Applications? Competing Perspectives on Democracy and Citizenship. *Electoral Studies*, 36: 244-251.
- Fossen, Thomas and Bert van den Brink (2015). Electoral Dioramas: On the Problem of Representation in Voting Advice Applications. *Representation*, 51(3): 341-358.
- Garzia, Diego, Andrea De Angelis and Joëlle Pianzola (2014). The Impact of Voting Advice Applications on Electoral Participation. In: Marschall, Stefan and Diego Garcia (eds.). *Matching Voters with Parties and Candidates. Voting Advice Applications in Comparative Perspective*. Colchester: ECPR Press: 105-114.

- Germann, Micha and Kostas Gemenis (2014). Online Gimmick or Participation Promoting Tool? Smartvote and its Effect on Electoral Turnout. Paper presented at the *Annual Convention of the Swiss Political Science Association*, January 30-31, 2014, Berne.
- Gemenis, Kostas and Martin Rosema (2014). Voting Advice Applications and Electoral Turnout. *Electoral Studies*, 23: 281-289.
- Gilens, Martin (2012). *Affluence and Influence: Economic Inequality and Political Power in America*. Princeton: Princeton University Press.
- Gilens, Martin (2015). Descriptive Representation, Money, and Political Inequality in the United States. In: *Swiss Political Science Review*, 21(2): 222-228.
- Giger, Nathalie, Jan Rosset and Julian Bernauer (2012). The Poor Political Representation of the Poor in a Comparative Perspective. In: *Representation*, 48(1): 47-61.
- Hug, Simon and Tobias Schulz (2007). Left-Right Positions of Political Parties in Switzerland. *Party Politics*, 13(3): 305-330.
- Kiewiet, D. Roderick and Matthew D. McCubbins (1991). *The Logic of Delegation: Congressional Parties and the Appropriations Process*. Chicago, University of Chicago Press.
- Ladner, Andreas, Gabriela Felder and Jan Fivaz (2010). More than Toys? A First Assessment of Voting Advice Applications in Switzerland. In: Cedroni, Lorella and Diego Garzia (eds.). *Voting Advice Applications in Europe*. The State of the Art. Naples, Scripta Web: 91-123.
- Ladner, Andreas and Jan Fivaz (2012). Voting Advice Applications. In: Kersting, Norbert (ed.). *Electronic Democracy*. Opladen, Barbara Budrichs Publisher: 177-198.
- Ladner, Andreas, Jan Fivaz and Joëlle Pianzola (2012). Voting Advice Applications and Party Choice: Evidence from smartvote Users in Switzerland. *International Journal of Electronic Governance*, 5(3/4): 367-387.
- Lau, Richard R. and David P. Redlawsk (2006). *How Voters Decide. Information Processing during Election Campaigns*. Cambridge, Cambridge University Press.
- Loren, Anouk, Jan Rosset and Reto Wüst (2015). Descriptive and Substantive Representation of Poor Citizens in Switzerland. In: *Swiss Political Science Review*, 21(2): 254-260.
- Lupia, Arthur (2003). Delegation and its Perils. In: Kaare Strøm, Wolfgang C. Müller and Torbjörn Bergman (eds.): *Delegation and Accountability in Parliamentary Democracies*. Oxford, Oxford University Press: 33-54.
- Lutz, Georg (2016). *Eidgenössische Wahlen 2015. Wahlteilnahme und Wahlentscheid*. Lausanne, Selects – FORS.
- Marschall, Stefan (2014). Profiling Users. In: Marschall, Stefan and Diego Garcia (eds.). *Matching Voters with Parties and Candidates. Voting Advice Applications in Comparative Perspective*. Colchester: ECPR Press: 93-104.

- Merkel, Wolfgang (ed.) (2015). *Demokratie und Krise. Zum schwierigen Verhältnis von Theorie und Empirie*. Wiesbaden, Springer VS.
- Müller, Wolfgang C. and Thomas M. Meyer (2010). Meeting the Challenges of Representation and Accountability in Multi-Party Governments. *West European Politics*, 33(5): 1065-1092.
- Pianzola, Joëlle (2014a). Swing Voting due to smartvote Use? Evidence from the 2011 Swiss Federal Elections. *Swiss Political Science Review*, 20(4): 651-677.
- Pianzola, Joëlle (2014b). Selection Biases in Voting Advice Application Research. *Electoral Studies*, 36: 272-280.
- Pitkin, Hanna F. (1967). *The Concept of Representation*. Berkeley, University of California Press.
- Powell, G. Bingham Jr. (2004). The Chain of Responsiveness. *Journal of Democracy*, 15(4): 91-105.
- Rosset, Jan (2013). Are the Policy Preferences of Relatively Poor Citizens Under-Represented in the Swiss Parliament? In: *Journal of Legislative Studies*, 19(4): 490-504.
- Schädel, Lisa, Daniel Schwarz and Andreas Ladner (2016). Promises and Lies. An Empirical Comparison of Swiss MPs' Pre- and Post-Electoral Positions. In: Bühlmann, Marc and Jan Fivaz (eds.): *Political Representation: Roles, Representatives and the Represented*. London/New York, Routledge: 68-84.
- Schmitter, Philippe C. (2015). Crisis and Transition, But Not Decline. In: *Journal of Democracy*, 26(1): 32-44.
- Schwarz, Daniel, Lisa Schädel and Andreas Ladner (2010). Pre-Election Positions and Voting Behaviour in Parliament: Consistency among Swiss MPs. *Swiss Political Science Review*, 16(3): 533-564.
- Vassil, Kristjan (2012). *Voting Smarter. The Impact of Voting Advice Applications on Political Behavior*. Florence, European University Institute.
- Walgrave, Stefaan, Peter van Aelst and Michiel Nuytemans (2008). "Do the Vote Test": The Electoral Effects of a Popular Vote Advice Application at the 2004 Belgian Elections. *Acta Politica*, 43: 50-70.