## **Supplementary Material**

# Do voters really prefer more choice? Determinants of support for personalised electoral systems

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## A: Robustness Checks for the Full Model

In this section, we report additional regression results and plots with predicted probabilities pooled for the four elections. Details about each Figure are provided in the main text of the paper.

Figure A1. Predicted probabilities of the attitudes toward the personalised electoral system depending on political knowledge. Respondents who could name the CDU and SPD candidates correctly, are classified as people with "high" knowledge. Knowing no or only one candidates indicates "low" knowledge. Results are based on multinomial regression models with robust standard errors. Vertical lines indicate 95% confidence intervals.



Figure A2. Predicted probabilities of the attitudes toward the personalised electoral system depending on party satisfaction. Results are based on multinomial regression models with robust standard errors. Shaded areas indicate 95% confidence intervals.



Figure A3. Predicted probabilities of the attitudes toward the personalised electoral system depending on age group (without Hamburg 2011 due to different coding of *Age* variable). Results are based on multinomial regression models with robust standard errors. Vertical lines indicate 95% confidence intervals.



Figure A4. Predicted probabilities of the attitudes toward the personalised electoral system depending on formal education. Results are based on multinomial regression models with robust standard errors. Vertical lines indicate 95% confidence intervals.



Figure A5. Predicted probabilities of the attitudes toward the personalised electoral system depending on voter type. Results are based on multinomial regression models with robust standard errors. Vertical lines indicate 95% confidence intervals.



#### Alternative Variable Specifications

We use alternative measurements in order to test the robustness of our main effects *Party identification* and *Political interest*. First, we measure party identification at the regional level. The results from Figure A6 mirror the findings from the most liked party on the federal party. Supporters of the Green and Left party in Hamburg and Bremen are more likely to approve the reform. Second, in Figure A7 we use thermometer evaluations of each party instead of the conceptualisation of the

preferred party (Bowler et al. 2018).<sup>1</sup> Again, respondents who like the Greens, Left, or SPD are more likely to approve the electoral system reform. For the CDU, the effect shows in the opposite direction, for the FDP we do not observe strong trends. Overall, the effect of left party supporters and people who like the CDU remains evident with these alternative measurements. We also test for interaction effects between *Age* and *Party identification*, but apart from a positive relationship between CDU and *Age*, we do not find consistent effects (Figure A7).

The unexpected result that respondents who are satisfied with their most preferred party are also more likely to support the electoral law, might be conditioned by their preferred party. Possibly, citizens who identify with one of the party that strongly supported the new electoral system (the Left and Green party) might also be more satisfied with the electoral system. In line with the evidence from Figure 2 printed in the paper, the probability of approval conditional on party satisfaction is generally higher for supporters of the Green and Left party (Figure A8). However, the direction of the relationship, i.e. that more satisfied respondents are more likely to support the new electoral system, also holds for voters who support parties that were not in favour of the electoral reform. To sum up, the main effects are robust across several model specifications.

<sup>&</sup>lt;sup>1</sup> One item for each of the five main parties asks how much a respondent likes each party. After rescaling, the variable ranges from "not at all" (0) to "a lot" (10).

Figure A6. Predicted probabilities of the attitudes toward the personalised electoral system depending on party identification (local level). Results are based on multinomial regression models with robust standard errors. Vertical lines indicate 95% confidence intervals.



Figure A7. Predicted probabilities of the attitudes toward the personalised electoral system depending on approval ratings of parties. Plots display the predicted probabilities (y-axis) depending on the approval ratings (0 = worst, 10 = best) for each party (x-axis). Results are based on multinomial regression models with robust standard errors. Shaded areas indicate 95% confidence intervals.



Figure A8. Predicted probabilities of the attitudes toward the personalised electoral system depending on party satisfaction and whether the respondent's most preferred party was for or against the reformed electoral system. Results are based on multinomial regression models with robust standard errors. Shaded areas indicate 95% confidence intervals.



## **B:** Regressions for Each Election

In this section, we report the regression results and predicted probabilities when running the models reported in the paper for each election separately. The plots are based on Models 3–6 of Table A1.

Figure A9. Predicted probabilities of the attitudes toward the personalised electoral system depending on party identification (local level) for each election. Results are based on multinomial regression models with robust standard errors. Vertical lines indicate 95% confidence intervals.



Election 

Bremen 2011 

Bremen 2015 

Hamburg 2011 

Hamburg 2015

Figure A10. Predicted probabilities of the attitudes toward the personalised electoral system depending on political interest for each election. Results are based on multinomial regression models with robust standard errors. Vertical lines indicate 95% confidence intervals.



Figure A11. Predicted probabilities of the attitudes toward the personalised electoral system depending on age group for each election. Results are based on multinomial regression models with robust standard errors. Vertical lines indicate 95% confidence intervals.



Election 

Bremen 2011 

Bremen 2015 
Hamburg 2011 
Hamburg 2015

Figure A12. Predicted probabilities of the attitudes toward the personalised electoral system depending on formal education for each election. Results are based on multinomial regression models with robust standard errors. Vertical lines indicate 95% confidence intervals.



Figure A13. Predicted probabilities of the attitudes toward the personalised electoral system depending on voter type for each election. Results are based on multinomial regression models with robust standard errors. Vertical lines indicate 95% confidence intervals.



# C: Regression Table

|                                      | Full Pooled Model<br>Bremen & Hamburg 2011 and<br>2015 |                                 | Full Pooled Model Excluding<br>Voter Type Variable |                                 | Bremen 2011                   |                              | Bremen 2015                    |                              | Hamburg 2011                               |                              | Hamburg 2015                   |                                 |
|--------------------------------------|--|---------------------------------|--|---------------------------------|-------------------------------|------------------------------|--------------------------------|------------------------------|--|------------------------------|--------------------------------|---------------------------------|
|                                      | Indifferent<br>vs. Dislike                             | Like<br>vs. Dislike             | Indifferent<br>vs. Dislike                         | Like<br>vs. Dislike             | Indifferent<br>vs. Dislike    | Like<br>vs. Dislike          | Indifferent<br>vs. Dislike     | Like<br>vs. Dislike          | Indifferent<br>vs. Dislike                 | Like<br>vs. Dislike          | Indifferent<br>vs. Dislike     | Like<br>vs. Dislike             |
| Party Identification (Ref = CDU)     |  |                                 |  |                                 |                               |                              |                                |                              |  |                              |                                |                                 |
| Other                                | 0.586<br>(0.439)                                       | 0.711<br>(0.433)                | 0.425 (0.420)                                      | 0.481<br>(0.409)                | 1.016 (0.926)                 | 1.313<br>(0.880)             | 1.554<br>(0.813)               | 1.116<br>(0.824)             | -13.277***<br>(0.810)                      | -0.835<br>(1.462)            | 0.344 (0.845)                  | 0.949<br>(0.959)                |
| FDP                                  | 0.072 (0.292)  | 0.070 (0.291)                   | 0.111 (0.285)                                      | 0.155 (0.285)                   | $1.323^{*}$<br>(0.599)        | 0.540<br>(0.676)             | 0.152 (0.588)                  | 0.197<br>(0.612)             | -1.056<br>(0.710)                          | -0.376 (0.625)               | 0.030 (0.555)                  | 0.271<br>(0.547)                |
| Greens                               | 0.513**<br>(0.182)                                     | 1.081***<br>(0.167)             | 0.485**<br>(0.174)                                 | 1.108 <sup>***</sup><br>(0.160) | 0.376<br>(0.354)              | 1.116****<br>(0.315)         | 0.774 (0.445)                  | 1.609***<br>(0.386)          | 0.545 (0.384)                              | 0.391 (0.372)                | 0.401 (0.396)                  | 1.337 <sup>***</sup><br>(0.375) |
| No Party ID                          | 0.153<br>(0.128)                                       | 0.389**<br>(0.125)              | 0.164 (0.120)                                      | 0.401 <sup>***</sup><br>(0.118) | 0.012<br>(0.253)              | 0.368<br>(0.230)             | 0.051<br>(0.277)               | 0.398<br>(0.248)             | 0.453<br>(0.267)                           | $0.562^{*}$<br>(0.266)       | 0.137<br>(0.307)               | 0.273<br>(0.316)                |
| Left Party                           | 0.631 <sup>*</sup><br>(0.279)                          | $0.965^{***}$<br>(0.249)        | 0.653 <sup>*</sup><br>(0.271)                      | $1.024^{***}$<br>(0.244)        | 0.569<br>(0.608)              | $1.198^{*}$<br>(0.511)       | 0.475<br>(0.485)               | 0.649<br>(0.451)             | 0.184<br>(0.627)                           | 0.759<br>(0.523)             | $1.582^{*}$<br>(0.618)         | $1.842^{**}$<br>(0.661)         |
| SPD                                  | $0.260^{*}$<br>(0.129)                                 | 0.452 <sup>***</sup><br>(0.126) | $0.245^{*}$<br>(0.123)                             | 0.511***<br>(0.121)             | -0.201<br>(0.280)             | 0.350<br>(0.256)             | 0.346<br>(0.320)               | 0.814**<br>(0.285)           | 0.545<br>(0.304)                           | 0.243<br>(0.310)             | 0.606<br>(0.337)               | 0.403<br>(0.348)                |
| Education (Ref = A Levels & College) |  |                                 |  |                                 |                               |                              |                                |                              |  |                              |                                |                                 |
| A Levels – No<br>College             | -0.027   | 0.111                           | -0.019   | 0.136                           | -0.178                        | -0.085                       | -0.270                         | -0.019                       | 0.286                                      | 0.358                        | -0.039                         | 0.119                           |
| No A Levels                          | (0.134)<br>-0.095<br>(0.104)                           | (0.121)<br>0.040<br>(0.005)     | (0.128)<br>-0.063<br>(0.000)                       | (0.117)<br>0.022<br>(0.001)     | (0.267)<br>-0.252<br>(0.202)  | (0.219)<br>-0.273<br>(0.172) | (0.281)<br>-0.141<br>(0.108)   | (0.242)<br>0.084<br>(0.172)  | (0.264)<br>0.124<br>(0.210)                | (0.259)<br>0.244<br>(0.218)  | (0.286)<br>-0.089<br>(0.246)   | (0.290)<br>0.044<br>(0.240)     |
| Age (Ref = 30-39)                    | (0.104)  | (0.093)                         | (0.099)  | (0.091)                         | (0.202)                       | (0.175)                      | (0.198)                        | (0.172)                      | (0.219)                                    | (0.218)                      | (0.240)                        | (0.240)                         |
| <30                                  | 0.213  | 0.777***                        | 0.215  | 0.780***                        | -0.044                        | 0.460                        | 0.020                          | $1.349^{*}$                  | 0.355                                      | 0.698*                       | 0.660                          | 1.141*                          |
| 40-49                                | (0.188)<br>-0.256<br>(0.152)                           | (0.186)<br>-0.140<br>(0.154)    | (0.177)<br>-0.302 <sup>*</sup>                     | (0.173)<br>-0.137<br>(0.145)    | (0.320)<br>-0.109<br>(0.274)  | (0.288)<br>-0.090<br>(0.256) | (0.556)<br>-0.489<br>(0.206)   | (0.533)<br>-0.109<br>(0.286) | (0.327)<br>-0.373<br>(0.201)               | (0.346)<br>0.002<br>(0.202)  | (0.462)<br>-0.215<br>(0.221)   | (0.510)<br>-0.668<br>(0.402)    |
| 50-59                                | (0.153)<br>-0.754 <sup>***</sup><br>(0.157)            | (0.154)<br>-0.169<br>(0.149)    | (0.144)<br>-0.741 <sup>***</sup><br>(0.148)        | (0.145)<br>-0.165<br>(0.142)    | (0.274)<br>-0.622*<br>(0.287) | (0.256)<br>-0.112<br>(0.254) | -0.808 <sup>*</sup><br>(0.383) | (0.386)<br>-0.128<br>(0.369) | (0.291)<br>-1.016 <sup>**</sup><br>(0.332) | (0.302)<br>-0.045<br>(0.311) | (0.331)<br>-0.870**<br>(0.332) | (0.402)<br>-0.378<br>(0.347)    |
| 60-69                                | -0.791 <sup>***</sup><br>(0.157)                       | -0.377 <sup>*</sup><br>(0.150)  | -0.866***<br>(0.149)                               | -0.401 <sup>**</sup><br>(0.143) | -0.888**<br>(0.293)           | -0.469<br>(0.252)            | -0.936*<br>(0.384)             | -0.395<br>(0.367)            | -0.600<br>(0.309)                          | -0.314<br>(0.320)            | -0.830*<br>(0.340)             | -0.287<br>(0.351)               |

Table A1. Multinomial regression analysis (base outcome: Approval).

| 70+  | -0.824***<br>(0.154)         | -0.783***<br>(0.155) | -0.850***<br>(0.145) | -0.781 <sup>***</sup><br>(0.147) | -0.905**<br>(0.282) | -0.954***<br>(0.265) | -0.906 <sup>*</sup><br>(0.377) | -1.020**<br>(0.371) | $-0.647^{*}$<br>(0.313) | -0.585<br>(0.337) | -1.065**<br>(0.343) | -0.169<br>(0.353) |
|--|------------------------------|----------------------|----------------------|----------------------------------|---------------------|----------------------|--------------------------------|---------------------|-------------------------|-------------------|---------------------|-------------------|
| Political Interest (Ref = High)                                      |                              |                      |                      |                                  |                     |                      |                                |                     |                         |                   |                     |                   |
| Medium   | 0.399***                     | -0.161               | $0.420^{***}$        | $-0.178^{*}$                     | 0.316               | -0.202               | $0.626^{***}$                  | 0.046               | 0.217                   | $-0.439^{*}$      | 0.385               | -0.100            |
| Low  | 0.851***                     | -0.079               | 0.898***             | -0.207                           | 0.762**             | -0.286               | 0.958**                        | -0.030              | 0.492                   | -0.157            | 1.438***            | 0.727             |
|  | (0.149)                      | (0.156)              | (0.132)              | (0.140)                          | (0.257)             | (0.243)              | (0.303)                        | (0.297)             | (0.316)                 | (0.357)           | (0.407)             | (0.461)           |
| Gender (Ref = Male)  |                              |                      |                      |                                  |                     |                      |                                |                     |                         |                   |                     |                   |
| Female   | 0.144                        | -0.040               | 0.103                | -0.002                           | 0.035               | -0.049               | 0.636***                       | 0.096               | -0.097                  | -0.049            | -0.098              | -0.060            |
|  | (0.087)                      | (0.078)              | (0.082)              | (0.074)                          | (0.165)             | (0.138)              | (0.170)                        | (0.144)             | (0.186)                 | (0.175)           | (0.194)             | (0.195)           |
| Satisfaction with Preferred Party (Scale = 0-10)                     |                              |                      |                      |                                  |                     |                      |                                |                     |                         |                   |                     |                   |
| Satisfaction   | 0.011                        | 0.072**              | 0.005                | 0.073***                         | 0.039               | 0.095*               | 0.032                          | 0.094*              | -0.026                  | 0.062             | -0.012              | 0.039             |
|  | (0.023)                      | (0.022)              | (0.022)              | (0.021)                          | (0.043)             | (0.037)              | (0.047)                        | (0.044)             | (0.047)                 | (0.048)           | (0.061)             | (0.060)           |
| Support for Party in Last Election (Ref = Not Applicable/Don't Know) |                              |                      |                      |                                  |                     |                      |                                |                     |                         |                   |                     |                   |
| Loser  | -0.158                       | -0.152               | -0.099               | -0.061                           | 0.051               | 0.036                | -0.202                         | 0.067               | -0.263                  | -0.288            | -0.331              | -0.469            |
|  | (0.126)                      | (0.122)              | (0.116)              | (0.113)                          | (0.240)             | (0.217)              | (0.271)                        | (0.249)             | (0.284)                 | (0.285)           | (0.280)             | (0.306)           |
| Winner   | -0.054                       | -0.022               | -0.017               | 0.061                            | 0.306               | -0.116               | -0.260                         | 0.099               | -0.053                  | -0.253            | -0.274              | -0.039            |
|  | (0.122)                      | (0.117)              | (0.113)              | (0.107)                          | (0.233)             | (0.202)              | (0.243)                        | (0.230)             | (0.277)                 | (0.282)           | (0.283)             | (0.301)           |
| Voter Type (Ref =  | Voter Type (Ref = Non-Voter) |                      |                      |                                  |                     |                      |                                |                     |                         |                   |                     |                   |
| No Splitting   | -0.127                       | $0.321^{*}$          |                      |                                  | -0.070              | 0.084                | -0.213                         | 0.411               | -0.390                  | 0.271             | 0.124               | $0.862^{*}$       |
| o 11   | (0.125)                      | (0.127)              |                      |                                  | (0.231)             | (0.219)              | (0.251)                        | (0.239)             | (0.253)                 | (0.283)           | (0.301)             | (0.394)           |
| Splitting  | $-0.271^{\circ}$             | $(0.597^{-10})$      |                      |                                  | -0.515              | $(0.523^{\circ})$    | -0.373                         | (0.2495)            | -0.018                  | $(0.317^{-1})$    | -0.185              | $0.881^{\circ}$   |
|  | (0.155)                      | (0.129)              | I                    |                                  | (0.242)             | (0.210)              | (0.200)                        | (0.243)             | (0.280)                 | (0.298)           | (0.328)             | (0.400)           |
| Election (Ref = Bremen 2011)   |                              |                      |                      |                                  |                     |                      |                                |                     |                         |                   |                     |                   |
| Bremen 2015  | 0.558***                     | 0.502***             | 0.573***             | 0.509***                         | 1                   |                      |                                |                     |                         |                   |                     |                   |
| TT 1 oord  | (0.113)                      | (0.098)              | (0.106)              | (0.093)                          |                     |                      |                                |                     |                         |                   |                     |                   |
| Hamburg 2011   | 0.249                        | -0.309               | 0.241                | -0.313                           |                     |                      |                                |                     |                         |                   |                     |                   |
| Hamburg 2015   | (0.119)<br>0.340**           | (0.111)<br>-0.415*** | (0.111)              | (0.105)<br>-0.483***             |                     |                      |                                |                     |                         |                   |                     |                   |
| Trainburg 2015   | (0.122)                      | (0.118)              | (0.115)              | (0.113)                          |                     |                      |                                |                     |                         |                   |                     |                   |
| Intercept  | -0.403                       | -1.014****           | -0.517*              | -0.776**                         | -0.378              | -0.746               | -0.018                         | -1.130              | 0.151                   | -1.137            | 0.090               | -1.581*           |
| -  | (0.281)                      | (0.275)              | (0.254)              | (0.247)                          | (0.487)             | (0.449)              | (0.619)                        | (0.597)             | (0.557)                 | (0.590)           | (0.680)             | (0.748)           |
| LL   | -4133.737                    |                      | -4583.599            |                                  | -1257.699           |                      | -1206.933                      |                     | -864.292                |                   | -726.098            |                   |
| Chi2   | 499.730                      |                      | 489.649              |                                  | 170.861             |                      | 183.196                        |                     | 760.884                 |                   | 99.004              |                   |
| N  | 4055                         |                      | 4460                 |                                  | 1263                |                      | 1227                           |                     | 841                     |                   | 724                 |                   |

\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001. Robust standard errors in parentheses.