**Supplementary Material**

**How do voters form perceptions of party positions?**

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# Appendix A: Question wording & Vignettes – Study I

*Parties differ in their positions on economic issues. Economically left parties stand for an active role of the state in the economy and a strong welfare state; economically right parties stand for less regulation, lower taxes, and lower government expenditure.*

*Suppose a party in Germany expresses the following views on these issues:*

|  |
| --- |
| *[First/Second]*, we need to raise pensions and expand health and long-term care provision. **In recent years, higher rents and sharply increasing prices have made life noticeably more expensive for senior citizens, which makes it more difficult for them to participate in public life and thus leads to social impoverishment. We therefore call for the introduction of a minimum pension of 1,200 euros per month and a sustainable assurance of health and nursing care for senior citizens.**  *[First/Second]*, the income tax in Germany must be noticeably reduced. Germany is a high-tax country. **The tax burden continues to rise and people have less and less money in their pockets. We therefore call for a tax system that rewards personal efforts. The state must handle taxpayers’ money responsibly and can only demand as much from citizens as is necessary to fulfil its core tasks.** |

Notes: Texts in **bold** show the long version of the vignette. Short and long texts were randomly assigned. Same holds for the *order* of the two issues.

*Where would you place the party on the following scale?*

0 = economically left

10 =economically right

[Note: random order for the next two questions]

*And when you think of the same party again, just to remind you:*

[show vignette]

*Where would you place the party on the following scale?*

0 = more taxes and charges

10 = fewer taxes and charges

*And when you think of the same party again, just to remind you:*

[show vignette]

*Where would you place the party on the following scale?*

0 = more benefits for the elderly

10 = fewer benefits for the elderly

# Appendix B: Question wording & Vignettes – Study II

*Parties differ in their positions on social and societal issues. Some parties stand for an open society, individual freedom and tolerance whereas other parties stand for traditional values and for law and order.*

*Suppose a party in Austria expresses the following views on these issues:*

|  |
| --- |
| *[First/Second]*, same-sex couples need more rights. **Whether gay, lesbian, bisexual, transgender or transsexual: this should literally be the same in today's world. Therefore, an extension of the protection against discrimination is needed to ensure the equal treatment of all people in all areas of life. Because it must not matter who you love and kiss when you are looking for an apartment or going for a drink in a bar.**  *[First/Second]*, the number of refugees must be significantly reduced. **We need an upper limit that makes it clear: Up to this point, but not beyond, we can help refugees. Those who come must also follow the rules, learn German, and accept our values. Anyone who thinks they are abusing our prosperity and security to build an unfree, unjust and unequal parallel society must leave.** |

Notes: Texts in **bold** show the long version of the vignette. Short and long texts were randomly assigned. Same holds for the *order* of the two issues.

*Where would you place the party?*

0 = Openness and tolerance

10 =traditional values / law and order

[Note: random order for the next two questions]

[show same vignette as above]

*Where would you place the party on the following scale?*

0 = Regulate immigration as openly as possible

10 = Restrict immigration as much as possible

[show same vignette as above]

*Where would you place the party on the following scale?*

0 = Equal rights for same-sex marriage

10 = Privileges for the marriage between men and women

# Appendix C: Balance tests

We also test for systematic differences across treatment groups. We conduct balance tests for respondents’ age, gender, education level, and closeness to political parties. Specifically, we run multinomial logistic regression models to test whether these voter characteristics vary systematically across treatment groups (the dependent variable). Tables C.1 and C.2 show the results for Studies I and II, respectively.

We find no systematic differences in these voter characteristics across treatment groups. The explanatory power of the models is close to zero, and none of the regression models performs significantly better than an empty model (i.e., one without covariates). As indicated by the Likelihood Ratio (LR) Chi-Square test statistics, we cannot safely reject the null hypothesis that all model coefficients are zero.

**Table C.1: Balance tests (Study I)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Age | Sex | Education: medium | Education: high | Partisan (0/1) |
| Taxes (R) > Pensions (L) | -0.00117 | 0.0632 | -0.140 | -0.174 | -0.189\* |
|  | (0.00) | (0.10) | (0.18) | (0.18) | (0.11) |
| Constant | 0.0484 | -0.0353 | 0.135 | | 0.124 |
|  | (0.16) | (0.07) | (0.16) | | (0.09) |
|  |  |  |  |  |  |
| *Both long (ref.)* |  |  |  |  |  |
|  |  |  |  |  |  |
| Both short | -0.00279 | 0.0277 | -0.285 | -0.271 | 0.0292 |
|  | (0.00) | (0.10) | (0.17) | (0.18) | (0.11) |
| Constant | 0.115 | -0.0225 | 0.243 | | -0.0292 |
|  | (0.16) | (0.07) | (0.16) | | (0.09) |
|  |  |  |  |  |  |
| Pensions (L) > Taxes (R) | -0.00141 | 0.00454 | -0.128 | -0.152 | 0.0140 |
|  | (0.00) | (0.10) | (0.18) | (0.19) | (0.11) |
| Constant | 0.0478 | -0.0175 | 0.110 | | -0.0250 |
|  | (0.17) | (0.07) | (0.17) | | (0.09) |
|  |  |  |  |  |  |
| *N* | 3,150 | 3,150 | 3,150 | | 3,150 |
| Pseudo R-squared | 0.0000730 | 0.0000565 | 0.000344 | | 0.000629 |
| LR Chi-Square test (df) | 0.637 (3) | 0.493 (3) | 3.005 (6) | | 5.494 (3) |
| Prob. Chi squared | 0.888 | 0.920 | 0.808 | | 0.139 |

Standard errors in parentheses.

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

**Table C.2: Balance tests (Study II)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Age | Sex | Education: medium | Education: high | Partisan (0/1) |
| Refugees (R) > LGBT (L) | 0.000339 | 0.0424 | -0.158 | -0.346\*\* | -0.0428 |
|  | (0.00) | (0.10) | (0.15) | (0.16) | (0.10) |
| Constant | -0.00567 | -0.00803 | 0.201 | | 0.0334 |
|  | (0.16) | (0.07) | (0.13) | | (0.08) |
|  |  |  |  |  |  |
| *Both long (ref.)* |  |  |  |  |  |
|  |  |  |  |  |  |
| Both short | 0.00102 | 0.0266 | -0.0800 | -0.00755 | -0.0885 |
|  | (0.00) | (0.10) | (0.15) | (0.16) | (0.10) |
| Constant | -0.0345 | -0.00535 | 0.0541 | | 0.0599 |
|  | (0.16) | (0.07) | (0.13) | | (0.08) |
|  |  |  |  |  |  |
| LGBT (L) > Refugees (R) | 0.000394 | 0.00539 | 0.0136 | -0.0132 | 0.124 |
|  | (0.00) | (0.10) | (0.15) | (0.16) | (0.10) |
| Constant | -0.00546 | 0.0106 | 0.00922 | | -0.0604 |
|  | (0.16) | (0.07) | (0.14) | | (0.08) |
|  |  |  |  |  |  |
| *N* | 3024 | 3014 | 3024 | | 3024 |
| Pseudo R-squared | 0.0000112 | 0.0000259 | 0.00107 | | 0.000553 |
| LR Chi-Square test (df) | 0.0942 (3) | 0.217 (3) | 8.952 (6) | | 4.635 (3) |
| Prob. Chi squared | 0.993 | 0.975 | 0.176 | | 0.201 |

Standard errors in parentheses.

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

# Appendix D: Regression results of the mediation analysis

**Table D.1: Perceived issue positions (Study I)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Issue | Statement | N | Mean | SD | t-Test for equal means | Levene's test for equal variance |
| Pensions | Long | 1574 | 2.563 | 2.304 | t = -4.760 | f = 0.963 |
|  | Short | 1576 | 2.957 | 2.348 | (p<0.001) | (p=0.225) |
|  |  |  |  |  |  |  |
| Taxes | Long | 1583 | 7.014 | 2.406 | t = 8.699 | f = 0.8965 |
|  | Short | 1567 | 6.247 | 2.541 | (p<0.001) | (p=0.015) |
|  |  |  |  |  |  |  |
| Economic position | Taxes long | 790 | 4.777 | 2.389 | t = 1.815 (p=0.070) | f = 1.185 (p=0.991) |
| Pensions long | 781 | 3.958 | 2.304 | t = -5.364 (p<0.001) | f = 1.102 (p=0.913) |
| Both short | 786 | 4.567 | 2.195 | *Reference* | *Reference* |

Note: One-tailed test for equality of variance, H0: Var(long statement)/Var(short statement)≥1

**Table D.2: Perceived issue positions (Study II)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Issue | Statement | N | Mean | SD | t-Test for equal means | Levene's test for equal variance |
| LGBT rights | Long | 1509 | 3.369 | 3.199 | t = -2.786 | f = 1.081 |
|  | Short | 1515 | 3.687 | 3.078 | (p=0.005) | (p=0.934) |
|  |  |  |  |  |  |  |
| Refugees | Long | 1507 | 7.206 | 2.422 | t = -2.890 | f = 0.925 |
|  | Short | 1517 | 7.466 | 2.518 | (p=0.004) | (p=0.065) |
|  |  |  |  |  |  |  |
| Socio-cultural position | Refugees long | 757 | 5.600 | 2.454 | t = 6.200 (p<0.001) | f = 1.266 (p=0.999) |
| LGBT rights long | 759 | 4.501 | 2.305 | t = -3.120 (p=0.002) | f = 1.117 (p=0.936) |
| Both short | 758 | 4.860 | 2.181 | *Reference* | *Reference* |

Note: One-tailed test for equality of variance, H0: Var(long statement)/Var(short statement)≥1

**Table D.3: Perceived positions (Study I)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Economic position | Pensions | Taxes |
| *Reference: both short* |  |  |  |
| Taxes (R) > Pensions (L) | 0.0491 | 0.220\* | 0.567\*\*\* |
|  | (0.11) | (0.12) | (0.12) |
| Both long | -0.131 | -0.306\*\*\* | 0.580\*\*\* |
|  | (0.11) | (0.12) | (0.12) |
| Pensions (L) > Taxes (R) | -0.463\*\*\* | -0.262\*\* | -0.388\*\*\* |
|  | (0.11) | (0.12) | (0.12) |
|  |  |  |  |
| Pensions | 0.327\*\*\* |  |  |
|  | (0.02) |  |  |
| Taxes | 0.157\*\*\* |  |  |
|  | (0.02) |  |  |
| Constant | 2.628\*\*\* | 2.847\*\*\* | 6.440\*\*\* |
|  | (0.15) | (0.08) | (0.09) |
| *N* | 3150 | 3150 | 3150 |
| Adjusted R squared | 0.119 | 0.00735 | 0.0255 |

Standard errors in parentheses.

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

**Table D.4: Perceived positions (Study II)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Socio-cultural position | LGBT rights | Refugees |
| *Reference: both short* |  |  |  |
| Refugees (R) > LGBT (L) | 0.766\*\*\* | 0.121 | -0.216\* |
|  | (0.11) | (0.16) | (0.13) |
| Both long | 0.100 | -0.107 | -0.351\*\*\* |
|  | (0.11) | (0.16) | (0.13) |
| LGBT (L) > Refugees (R) | -0.280\*\* | -0.407\*\* | -0.0468 |
|  | (0.11) | (0.16) | (0.13) |
|  |  |  |  |
| Refugees | 0.218\*\*\* |  |  |
|  | (0.02) |  |  |
| LGBT rights | 0.171\*\*\* |  |  |
|  | (0.01) |  |  |
| Constant | 2.603\*\*\* | 3.627\*\*\* | 7.489\*\*\* |
|  | (0.15) | (0.11) | (0.09) |
| *N* | 3024 | 3024 | 3024 |
| Adjusted R squared | 0.137 | 0.00289 | 0.00218 |

Standard errors in parentheses.

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

# Appendix E: Mediation analyses including control variables

**Table E.1: Perceived positions (Study I) incl. control variables**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Economic position | Pensions | Taxes |
| *Reference: both short* |  |  |  |
| Taxes (R) > Pensions (L) | 0.0502 | 0.217\* | 0.567\*\*\* |
|  | (0.11) | (0.12) | (0.12) |
| Both long | -0.125 | -0.295\*\* | 0.574\*\*\* |
|  | (0.11) | (0.12) | (0.12) |
| Pensions (L) > Taxes (R) | -0.462\*\*\* | -0.258\*\* | -0.390\*\*\* |
|  | (0.11) | (0.12) | (0.12) |
|  |  |  |  |
| Pensions | 0.312\*\*\* |  |  |
|  | (0.02) |  |  |
| Taxes | 0.160\*\*\* |  |  |
|  | (0.02) |  |  |
| Age | -0.0100\*\*\* | -0.0145\*\*\* | 0.000672 |
|  | (0.00) | (0.00) | (0.00) |
| Female | -0.240\*\*\* | -0.334\*\*\* | 0.346\*\*\* |
|  | (0.08) | (0.08) | (0.09) |
| *Reference: low education* |  |  |  |
| Education: medium | -0.281\*\* | -0.251\* | 0.319\*\* |
|  | (0.14) | (0.14) | (0.15) |
| Education: high | -0.508\*\*\* | -0.414\*\*\* | 0.411\*\* |
|  | (0.14) | (0.15) | (0.16) |
| Close to party (0/1) | -0.167\* | -0.262\*\*\* | 0.122 |
|  | (0.09) | (0.09) | (0.10) |
| Constant | 3.660\*\*\* | 4.120\*\*\* | 5.837\*\*\* |
|  | (0.23) | (0.20) | (0.21) |
| *N* | 3150 | 3150 | 3150 |
| Adjusted R squared | 0.130 | 0.0254 | 0.0308 |

Standard errors in parentheses.

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

**Figure E.1: Direct and indirect effects of text length on the perceived party position on economic issues (accounting for age, gender, education and partisanship)**



**Table E.2: Perceived positions (Study II) incl. control variables**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Socio-cultural position | LGBT rights | Refugees |
| *Reference: both short* |  |  |  |
| Refugees (R) > LGBT (L) | 0.747\*\*\* | 0.0843 | -0.211\* |
|  | (0.11) | (0.16) | (0.13) |
| Both long | 0.0892 | -0.0975 | -0.363\*\*\* |
|  | (0.11) | (0.16) | (0.13) |
| LGBT (L) > Refugees (R) | -0.293\*\*\* | -0.396\*\* | -0.0663 |
|  | (0.11) | (0.16) | (0.13) |
|  |  |  |  |
| Refugees | 0.221\*\*\* |  |  |
|  | (0.02) |  |  |
| LGBT rights | 0.166\*\*\* |  |  |
|  | (0.01) |  |  |
| Age | 0.00181 | 0.0289\*\*\* | 0.00417 |
|  | (0.00) | (0.00) | (0.00) |
| Female | -0.0362 | -0.412\*\*\* | -0.00564 |
|  | (0.08) | (0.11) | (0.09) |
| *Reference: low education* |  |  |  |
| Education: medium | -0.180 | -0.235 | 0.224\* |
|  | (0.12) | (0.17) | (0.13) |
| Education: high | -0.277\*\* | -0.908\*\*\* | 0.321\*\* |
|  | (0.12) | (0.18) | (0.14) |
| Close to party (0/1) | -0.0978 | -0.385\*\*\* | 0.273\*\*\* |
|  | (0.08) | (0.11) | (0.09) |
| Constant | 2.795\*\*\* | 3.199\*\*\* | 6.938\*\*\* |
|  | (0.21) | (0.24) | (0.19) |
| *N* | 3014 | 3014 | 3014 |
| Adjusted R squared | 0.138 | 0.0413 | 0.00684 |

Standard errors in parentheses.

\* p<0.1, \*\* p<0.05, \*\*\* p<0.01

**Figure E.2: Direct and indirect effects of text length on the perceived party position on socio-cultural issues**



# Appendix F: Information effects as an alternative explanation

In Appendices D and E we address an alternative explanation for our findings, namely that our results may be the result of additional relevant information contained in the longer vignettes. It is probably impossible to design a salience treatment that does not contain more information of some form, so the two effects are always to some extent confounded.

One possibility, namely that the longer text contains additional positional information on the issue dimension, is addressed at length in the main text. Specifically, to the extent that the additional information is partly positional information, this effect should show up in our mediation analysis (Figures 5 and 6, see also Appendix E).

However, the longer vignettes might also increase the clarity of the party’s position and may contain additional information on other issue dimensions. Here, we briefly address these two alternative explanations, which are tested in Tables D.1 and D.2.

A clarity-based effect would suggest that longer statements contain more information on the parties’ policy positions, and maybe clearer issue stances help voters more to identify a party’s positions on a higher-level policy dimension. One way of addressing this concern (see Tables D.1 and D.2) is by looking at the variance of perceptions. If information effects exist, variance should be lower for longer statements. Yet, we only find statistically significant differences in the variance of perceptions for one issue dimension (taxes). For all other issue dimensions, there is no systematic difference in the variance of perceptions between long and short issue statements.

However, the longer vignettes (e.g. on taxes) might also contain additional information on the party's positions on other sub-issues (e.g. the welfare state), which in turn could affect how the party's economic policy position is perceived. Yet, this additional information (e.g. position on the welfare state) should then also help respondents to place the party more accurately on the relevant higher-level dimension. This concern might not apply to all issue statements (e.g. the vignette on LGBT rights is tightly focused on this topic), but we aim to test this empirically. In Tables D.1 and D.2, we report Levene’s test of equal variances in the perceived party positions across treatment groups. None of the tests suggests that longer statements increase the perceived clarity of the party’s policy position. Hence, the lack of increased clarity is a sign that the longer statement does not include more information.

# Appendix G: Experiment on economic issue positions (Study II)

In the Austrian survey (study II), we also included an experiment on the economic issue dimension. The plan was to test whether respondents differ in their perception of a party’s economic policy position dependent on how much the party emphasizes its (left-wing) issue position on social services and its (right-wing) position on deregulation. The experiment did not produce useful results because respondents’ perceptions of the two issue positions were too similar (see also Figure G.1). In particular, the position on social services was not clearly perceived as left-wing. Hence, the experimental manipulation did not work as intended.

**Figure G.1: Perceived policy positions on social services (left) and deregulation (right)**



**References:**

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**Imai, K, Keele, L and Tingley, D** (2010) A General Approach to Causal Mediation Analysis. Psychological Methods 15, 309-334.

**Imai, K, Keele, L and Yamamoto, T** (2010) Identification, Inference and Sensitivity Analysis for Causal Mediation Effects. Statistical Science 25, 51-71.