**Online Appendix for “Whom Do We Naturalize? A Factorial Survey on Naturalization Preferences in Germany”**

Fabian Gülzaua

aScientific Staff of the German Expert Council on Integration and Migration, Berlin, Germany

**ABSTRACT**

**KEYWORDS**

Citizenship; naturalization; migration; factorial survey

**Content**

1. Survey description
2. Orthogonality
3. Full regression tables
4. Likelihood-ratio test
5. Non-differentation
6. Different model specifications

**Survey description**

**Orthogonality**

**Table A1.** Correlations between vignette variables

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Gender** | **Country of origin** | **Residence period** | **Employ-ment** | **German proficiency** | **Dual citizenship** |
| Gender | 1.000 | -0.005 | 0.000 | -0.005 | 0.000 | -0.001 |
| Country of origin | -0.005 | 1.000 | 0.003 | 0.004 | 0.000 | 0.001 |
| Residence period | 0.000 | 0.003 | 1.000 | 0.003 | 0.002 | -0.002 |
| Employment | -0.005 | 0.004 | 0.003 | 1.000 | -0.005 | 0.006 |
| German proficiency | 0.000 | 0.000 | 0.002 | -0.005 | 1.000 | 0.002 |
| Dual citizenship | -0.001 | 0.001 | -0.002 | 0.006 | 0.002 | 1.000 |

**Full regression tables**

**Table A2.** Multilevel modeling results

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Unconditional** | **Vignette** | **Vignette interactions** | **Respondent characteristics** | **Full model** |
| Intercept | 4.233\*\*\* | 2.841\*\*\* | 2.720\*\*\* | 4.212\*\*\* | 4.649\*\*\* |
|  | (0.088) | (0.077) | (0.084) | (0.212) | (0.240) |
| Gender: Male (ref.: Female) |  | -0.099\* | 0.129 | 0.107 | 0.096 |
|  |  | (0.047) | (0.090) | (0.091) | (0.092) |
| Country of origin: Turkey (ref.: Great Britain) |  | -0.368\*\*\* | -0.362\*\*\* | -0.367\*\*\* | 0.173 |
|  |  | (0.059) | (0.057) | (0.057) | (0.142) |
| India |  | -0.323\*\*\* | -0.317\*\*\* | -0.315\*\*\* | 0.068 |
|  |  | (0.059) | (0.056) | (0.056) | (0.144) |
| Duration of residence: 5 years (ref.: 3 years) |  | 0.120\* | 0.148+ | 0.120 | 0.110 |
|  |  | (0.060) | (0.080) | (0.080) | (0.081) |
| 10 years |  | 0.277\*\*\* | 0.315\*\*\* | 0.295\*\*\* | 0.294\*\*\* |
|  |  | (0.061) | (0.080) | (0.080) | (0.081) |
| Language proficiency: Very good (ref.: Little) |  | 1.347\*\*\* | 1.348\*\*\* | 1.357\*\*\* | 1.356\*\*\* |
|  |  | (0.047) | (0.044) | (0.045) | (0.045) |
| Employment: Employed (ref.: Seeking employment) |  | 0.949\*\*\* | 0.952\*\*\* | 0.947\*\*\* | 0.467\*\*\* |
|  |  | (0.047) | (0.045) | (0.045) | (0.113) |
| Current citizenship: Renounce (ref.: Retain) |  | 0.783\*\*\* | 0.972\*\*\* | 0.961\*\*\* | -0.047 |
|  |  | (0.047) | (0.064) | (0.064) | (0.157) |
| Current citizenship: Renounce × Gender: Male |  |  | -0.375\*\*\* |  | -0.351\*\*\* |
|  |  |  | (0.091) |  | (0.092) |
| Gender: Male × Residence period: 5 years |  |  | -0.051 |  |  |
|  |  |  | (0.112) |  |  |
| Gender: Male × Residence period: 10 years |  |  | -0.076 |  |  |
|  |  |  | (0.111) |  |  |
| Gender (resp.): Male |  |  |  | -0.124+ | -0.120+ |
|  |  |  |  | (0.066) | (0.066) |
| Age (resp.) |  |  |  | -0.004+ | -0.011\*\*\* |
|  |  |  |  | (0.002) | (0.002) |
| Education (resp.): Realschule (10) (ref.: Hauptschule (8/9)) |  |  |  | -0.097 | -0.099 |
|  |  |  |  | (0.100) | (0.100) |
| Abitur, Fachhochschulreife |  |  |  | 0.003 | 0.000 |
|  |  |  |  | (0.098) | (0.098) |
| No diploma/in school |  |  |  | -0.433 | -0.429 |
|  |  |  |  | (0.403) | (0.403) |
| Citizenship (resp.): Dual citizenship (ref.: Only German) |  |  |  | 0.473\*\*\* | 0.471\*\*\* |
|  |  |  |  | (0.128) | (0.128) |
| Third country |  |  |  | -0.039 | -0.032 |
|  |  |  |  | (0.178) | (0.178) |
| Region (resp.): East Germany (ref.: West Germany) |  |  |  | 0.138 | 0.139 |
|  |  |  |  | (0.091) | (0.091) |
| Immigration concern (resp.) |  |  |  | -0.237\*\*\* | -0.253\*\*\* |
|  |  |  |  | (0.020) | (0.029) |
|  | Continued on next page | | | | |
|  |  |  |  |  |  |
| Economic concern (resp.) |  |  |  | -0.007 | -0.006 |
|  |  |  |  | (0.019) | (0.019) |
| Party preference (resp.): SPD (ref.: CDU/CSU) |  |  |  | 0.480\*\*\* | 0.471\*\*\* |
|  |  |  |  | (0.113) | (0.113) |
| Bündnis 90 / Die Grünen |  |  |  | 0.199 | 0.201 |
|  |  |  |  | (0.124) | (0.125) |
| FDP |  |  |  | 0.132 | 0.124 |
|  |  |  |  | (0.161) | (0.161) |
| Die Linke |  |  |  | 0.011 | 0.016 |
|  |  |  |  | (0.157) | (0.157) |
| AfD |  |  |  | -0.365\*\* | -0.367\*\* |
|  |  |  |  | (0.115) | (0.115) |
| Other |  |  |  | -0.378\* | -0.369\* |
|  |  |  |  | (0.175) | (0.175) |
| No preference |  |  |  | -0.032 | -0.035 |
|  |  |  |  | (0.098) | (0.098) |
| Current citizenship: Renounce × Age (resp.) |  |  |  |  | 0.014\*\*\* |
|  |  |  |  |  | (0.002) |
| Country of origin: Turkey × Immigration concern (resp.) |  |  |  |  | -0.106\*\*\* |
|  |  |  |  |  | (0.025) |
| Country of origin: India × Immigration concern (resp.) |  |  |  |  | -0.074\*\* |
|  |  |  |  |  | (0.026) |
| Employment: Employed × Immigration concern (resp.) |  |  |  |  | 0.094\*\*\* |
|  |  |  |  |  | (0.020) |
| Current citizenship: Renounce × Immigration concern (resp.) |  |  |  |  | 0.056\*\* |
|  |  |  |  |  | (0.020) |
| Num.Obs. | 6000 | 6000 | 6000 | 5964 | 5964 |
| R2 Marg. | 0.000 | 0.201 | 0.203 | 0.292 | 0.300 |
| R2 Cond. | 0.527 | 0.524 | 0.523 | 0.529 | 0.539 |
| AIC | 23746.0 | 23452.3 | 23449.7 | 23043.7 | 22996.1 |
| BIC | 23772.8 | 23532.7 | 23550.2 | 23257.9 | 23243.8 |
| ICC | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 |
| RMSE | 1.29 | 1.30 | 1.30 | 1.31 | 1.29 |
| + p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001 | | | | | |

**Likelihood-ratio test**

**Table A3.** Results of a likelihood-ratio test

|  |  |  |  |
| --- | --- | --- | --- |
| **Term** | **DF** | **LRT** | ***p*** |
| Gender | 1 | 278.26 | 0.0000 |
| Country of origin | 1 | 409.19 | 0.0000 |
| Residence period | 1 | 831.52 | 0.0000 |
| Employment | 2 | 10.45 | 0.0001 |
| German proficiency | 2 | 23.09 | 0.0000 |
| Dual citizenship | 1 | 4.42 | 0.0378 |
| Gender × Country of origin | 1 | 1.44 | 0.2339 |
| Gender × Residence period | 1 | 9.49 | 0.0027 |
| Gender × Employment | 2 | 0.02 | 0.9827 |
| Gender × German proficiency | 2 | 1.02 | 0.3642 |
| Gender × Dual citizenship | 1 | 17.78 | 0.0001 |
| Country of origin × Residence period | 1 | 0.86 | 0.3574 |
| Country of origin × Employment | 2 | 2.91 | 0.0596 |
| Country of origin × German proficiency | 2 | 0.27 | 0.7649 |
| Country of origin × Dual citizenship | 1 | 1.37 | 0.2449 |
| Residence period × Employment | 2 | 0.28 | 0.7530 |
| Residence period × German proficiency | 2 | 0.15 | 0.8649 |
| Residence period × Dual citizenship | 1 | 0.20 | 0.6589 |
| Employment × German proficiency | 4 | 1.39 | 0.2440 |
| Employment × Dual citizenship | 2 | 0.24 | 0.7884 |
| German proficiency × Dual citizenship | 2 | 0.99 | 0.3766 |

**Full regression tables**

Table AX. Multilevel modeling results

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Unconditional** | **Vignette** | **Vignette interactions** | **Respondent characteristics** | **Full model** |
| Intercept | 4.224\*\*\* | 2.665\*\*\* | 2.549\*\*\* | 3.796\*\*\* | 4.196\*\*\* |
|  | (0.093) | (0.080) | (0.088) | (0.205) | (0.242) |
| Gender: Male (ref.: Female) |  | -0.103\* | 0.120 | 0.103 | 0.092 |
|  |  | (0.051) | (0.098) | (0.098) | (0.099) |
| Country of origin: Turkey (ref.: Great Britain) |  | -0.399\*\*\* | -0.395\*\*\* | -0.397\*\*\* | 0.220 |
|  |  | (0.064) | (0.061) | (0.061) | (0.159) |
| India |  | -0.330\*\*\* | -0.327\*\*\* | -0.324\*\*\* | 0.155 |
|  |  | (0.063) | (0.060) | (0.061) | (0.161) |
| Duration of residence: 5 years (ref.: 3 years) |  | 0.144\* | 0.156+ | 0.129 | 0.118 |
|  |  | (0.064) | (0.086) | (0.087) | (0.087) |
| 10 years |  | 0.285\*\*\* | 0.314\*\*\* | 0.297\*\*\* | 0.296\*\*\* |
|  |  | (0.065) | (0.086) | (0.087) | (0.087) |
| Language proficiency: Very good (ref.: Little) |  | 1.496\*\*\* | 1.498\*\*\* | 1.507\*\*\* | 1.504\*\*\* |
|  |  | (0.051) | (0.048) | (0.049) | (0.049) |
| Employment: Employed (ref.: Seeking employment) |  | 1.061\*\*\* | 1.062\*\*\* | 1.061\*\*\* | 0.549\*\*\* |
|  |  | (0.051) | (0.048) | (0.049) | (0.127) |
| Current citizenship: Renounce (ref.: Retain) |  | 0.865\*\*\* | 1.063\*\*\* | 1.053\*\*\* | 0.031 |
|  |  | (0.051) | (0.069) | (0.070) | (0.173) |
| Current citizenship: Renounce × Gender: Male |  |  | -0.393\*\*\* |  | -0.372\*\*\* |
|  |  |  | (0.098) |  | (0.099) |
| Gender: Male × Residence period: 5 years |  |  | -0.026 |  |  |
|  |  |  | (0.120) |  |  |
| Gender: Male × Residence period: 10 years |  |  | -0.059 |  |  |
|  |  |  | (0.120) |  |  |
| Gender (resp.): Male |  |  |  | -0.073 | -0.068 |
|  |  |  |  | (0.061) | (0.061) |
| Age (resp.) |  |  |  | -0.005\*\* | -0.012\*\*\* |
|  |  |  |  | (0.002) | (0.002) |
| Education (resp.): Realschule (10) (ref.: Hauptschule (8/9)) |  |  |  | -0.105 | -0.105 |
|  |  |  |  | (0.094) | (0.094) |
| Abitur, Fachhochschulreife |  |  |  | -0.049 | -0.050 |
|  |  |  |  | (0.092) | (0.092) |
| No diploma/in school |  |  |  | -0.416 | -0.407 |
|  |  |  |  | (0.351) | (0.351) |
| Citizenship (resp.): Dual citizenship (ref.: Only German) |  |  |  | 0.288\* | 0.287\* |
|  |  |  |  | (0.123) | (0.123) |
| Third country |  |  |  | -0.038 | -0.031 |
|  |  |  |  | (0.164) | (0.164) |
| Region (resp.): East Germany (ref.: West Germany) |  |  |  | 0.068 | 0.070 |
|  |  |  |  | (0.083) | (0.083) |
| Immigration concern (resp.) |  |  |  | -0.164\*\*\* | -0.171\*\*\* |
|  |  |  |  | (0.019) | (0.030) |
|  | Continued on next page | | | | |
|  |  | | | | |
| Economic concern (resp.) |  |  |  | -0.006 | -0.005 |
|  |  |  |  | (0.018) | (0.018) |
| Party preference (resp.): SPD (ref.: CDU/CSU) |  |  |  | 0.396\*\*\* | 0.382\*\*\* |
|  |  |  |  | (0.104) | (0.104) |
| Bündnis 90 / Die Grünen |  |  |  | 0.055 | 0.054 |
|  |  |  |  | (0.115) | (0.115) |
| FDP |  |  |  | 0.041 | 0.031 |
|  |  |  |  | (0.144) | (0.144) |
| Die Linke |  |  |  | -0.063 | -0.060 |
|  |  |  |  | (0.141) | (0.141) |
| AfD |  |  |  | -0.217\* | -0.226\* |
|  |  |  |  | (0.107) | (0.107) |
| Other |  |  |  | -0.445\*\* | -0.437\*\* |
|  |  |  |  | (0.168) | (0.169) |
| No preference |  |  |  | -0.118 | -0.121 |
|  |  |  |  | (0.090) | (0.090) |
| Current citizenship: Renounce × Age (resp.) |  |  |  |  | 0.014\*\*\* |
|  |  |  |  |  | (0.002) |
| Country of origin: Turkey × Immigration concern (resp.) |  |  |  |  | -0.119\*\*\* |
|  |  |  |  |  | (0.028) |
| Country of origin: India × Immigration concern (resp.) |  |  |  |  | -0.091\*\* |
|  |  |  |  |  | (0.029) |
| Employment: Employed × Immigration concern (resp.) |  |  |  |  | 0.100\*\*\* |
|  |  |  |  |  | (0.023) |
| Current citizenship: Renounce × Immigration concern (resp.) |  |  |  |  | 0.054\* |
|  |  |  |  |  | (0.023) |
| Num.Obs. | 5304 | 5304 | 5304 | 5276 | 5276 |
| R2 Marg. | 0.000 | 0.265 | 0.268 | 0.313 | 0.321 |
| R2 Cond. | 0.460 | 0.460 | 0.461 | 0.466 | 0.477 |
| AIC | 20799.5 | 20493.5 | 20491.5 | 20257.5 | 20216.5 |
| BIC | 20825.8 | 20572.4 | 20590.1 | 20467.8 | 20459.6 |
| ICC | 0.5 | 0.3 | 0.3 | 0.2 | 0.2 |
| RMSE | 1.35 | 1.36 | 1.37 | 1.37 | 1.35 |
| + p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001 | | | | | |

**Full regression tables**

Table AX. Multilevel modeling results

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Unconditional** | **Vignette** | **Vignette interactions** | **Respondent characteristics** | **Full model** |
| Intercept | 4.317\*\*\* | 2.286\*\*\* | 2.101\*\*\* | 4.265\*\*\* | 4.846\*\*\* |
|  | (0.059) | (0.102) | (0.115) | (0.329) | (0.370) |
| Gender: Male (ref.: Female) |  | -0.140\* | 0.201+ | 0.173 | 0.157 |
|  |  | (0.059) | (0.117) | (0.117) | (0.115) |
| Country of origin: Turkey (ref.: Great Britain) |  | -0.572\*\*\* | -0.561\*\*\* | -0.565\*\*\* | 0.280 |
|  |  | (0.075) | (0.074) | (0.074) | (0.211) |
| India |  | -0.489\*\*\* | -0.481\*\*\* | -0.476\*\*\* | 0.208 |
|  |  | (0.074) | (0.074) | (0.073) | (0.215) |
| Duration of residence: 5 years (ref.: 3 years) |  | 0.173\* | 0.204+ | 0.164 | 0.151 |
|  |  | (0.075) | (0.105) | (0.104) | (0.103) |
| 10 years |  | 0.410\*\*\* | 0.485\*\*\* | 0.460\*\*\* | 0.458\*\*\* |
|  |  | (0.077) | (0.106) | (0.105) | (0.104) |
| Language proficiency: Very good (ref.: Little) |  | 1.973\*\*\* | 1.976\*\*\* | 1.989\*\*\* | 1.984\*\*\* |
|  |  | (0.059) | (0.059) | (0.059) | (0.058) |
| Employment: Employed (ref.: Seeking employment) |  | 1.385\*\*\* | 1.388\*\*\* | 1.384\*\*\* | 0.656\*\*\* |
|  |  | (0.059) | (0.058) | (0.058) | (0.168) |
| Current citizenship: Renounce (ref.: Retain) |  | 1.174\*\*\* | 1.459\*\*\* | 1.444\*\*\* | -0.069 |
|  |  | (0.059) | (0.084) | (0.084) | (0.231) |
| Current citizenship: Renounce × Gender: Male |  |  | -0.563\*\*\* |  | -0.524\*\*\* |
|  |  |  | (0.118) |  | (0.116) |
| Gender: Male × Residence period: 5 years |  |  | -0.053 |  |  |
|  |  |  | (0.146) |  |  |
| Gender: Male × Residence period: 10 years |  |  | -0.148 |  |  |
|  |  |  | (0.145) |  |  |
| Gender (resp.): Male |  |  |  | -0.228\* | -0.220\* |
|  |  |  |  | (0.105) | (0.105) |
| Age (resp.) |  |  |  | -0.005 | -0.015\*\*\* |
|  |  |  |  | (0.003) | (0.004) |
| Education (resp.): Realschule (10) (ref.: Hauptschule (8/9)) |  |  |  | -0.106 | -0.110 |
|  |  |  |  | (0.159) | (0.159) |
| Abitur, Fachhochschulreife |  |  |  | 0.052 | 0.047 |
|  |  |  |  | (0.156) | (0.156) |
| No diploma/in school |  |  |  | -0.637 | -0.627 |
|  |  |  |  | (0.637) | (0.638) |
| Citizenship (resp.): Dual citizenship (ref.: Only German) |  |  |  | 0.749\*\*\* | 0.746\*\*\* |
|  |  |  |  | (0.205) | (0.205) |
| Third country |  |  |  | -0.071 | -0.059 |
|  |  |  |  | (0.282) | (0.282) |
| Region (resp.): East Germany (ref.: West Germany) |  |  |  | 0.190 | 0.196 |
|  |  |  |  | (0.145) | (0.145) |
| Immigration concern (resp.) |  |  |  | -0.372\*\*\* | -0.381\*\*\* |
|  |  |  |  | (0.032) | (0.044) |
|  | Continued on next page | | | | |
|  |  |  |  |  |  |
| Economic concern (resp.) |  |  |  | -0.012 | -0.010 |
|  |  |  |  | (0.031) | (0.031) |
| Party preference (resp.): SPD (ref.: CDU/CSU) |  |  |  | 0.854\*\*\* | 0.837\*\*\* |
|  |  |  |  | (0.180) | (0.180) |
| Bündnis 90 / Die Grünen |  |  |  | 0.429\* | 0.431\* |
|  |  |  |  | (0.198) | (0.198) |
| FDP |  |  |  | 0.355 | 0.346 |
|  |  |  |  | (0.255) | (0.255) |
| Die Linke |  |  |  | 0.155 | 0.166 |
|  |  |  |  | (0.249) | (0.249) |
| AfD |  |  |  | -0.568\*\* | -0.579\*\* |
|  |  |  |  | (0.184) | (0.184) |
| Other |  |  |  | -0.527+ | -0.509+ |
|  |  |  |  | (0.280) | (0.281) |
| No preference |  |  |  | 0.083 | 0.081 |
|  |  |  |  | (0.155) | (0.155) |
| Current citizenship: Renounce × Age (resp.) |  |  |  |  | 0.022\*\*\* |
|  |  |  |  |  | (0.003) |
| Country of origin: Turkey × Immigration concern (resp.) |  |  |  |  | -0.165\*\*\* |
|  |  |  |  |  | (0.039) |
| Country of origin: India × Immigration concern (resp.) |  |  |  |  | -0.132\*\*\* |
|  |  |  |  |  | (0.039) |
| Employment: Employed × Immigration concern (resp.) |  |  |  |  | 0.142\*\*\* |
|  |  |  |  |  | (0.031) |
| Current citizenship: Renounce × Immigration concern (resp.) |  |  |  |  | 0.079\* |
|  |  |  |  |  | (0.031) |
| + p < 0.1, \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001 | | | | | |