

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

Fabian Gülzau<sup>a</sup>

<sup>a</sup>Scientific Staff of the German Expert Council on Integration and Migration, Berlin, Germany

## **ABSTRACT**

## **KEYWORDS**

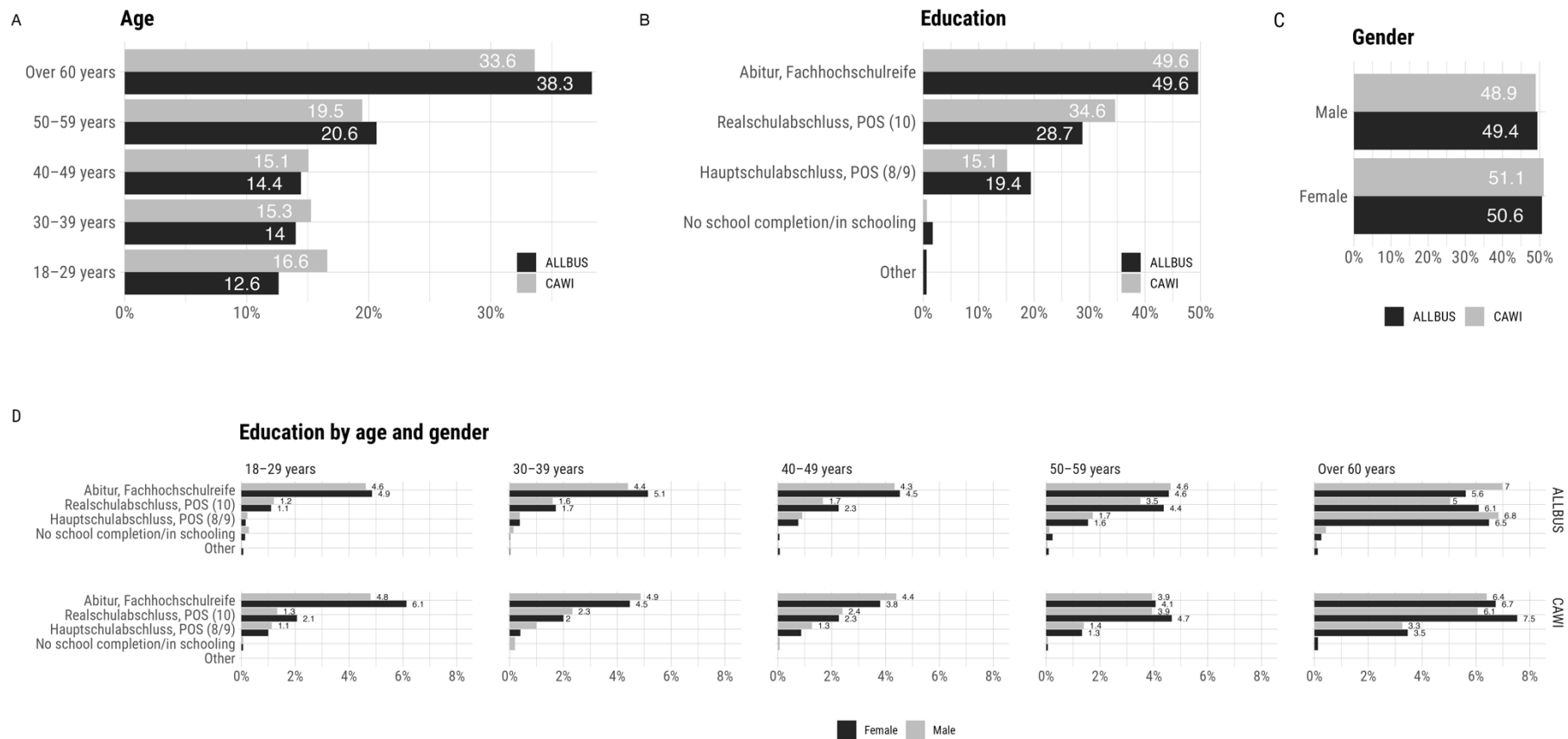
Citizenship; naturalization; migration; factorial survey

## **Content**

- (1) Survey description
- (2) Orthogonality
- (3) Full regression tables
- (4) Likelihood-ratio test
- (5) Non-differentiation
- (6) Different model specifications
- (7) Bibliography

## **1. Survey description**

The survey was administered by OmniQuest using their online access panel for which participants are recruited through online and offline channels. The sample was selected to be representative of the German population regarding age, gender, and region (NUTS-1 regions, i.e., federal states). Using secondary data from another high-quality survey, the German General Social Survey (ALLBUS) in its' most recent wave of 2021 (GESIS - Leibniz-Institut für Sozialwissenschaften 2023), I show that respondent characteristics closely align in both survey (see Figure A1). However, as can be expected from survey that requires internet access, the participants in the online survey are slightly younger than in the ALLBUS, which is conducted in a mixed-mode design by mail and CAWI.



**Figure A1.** Frequency distribution of age, education, and gender in online survey and ALLBUS (2021)

## 2. Orthogonality

**Table A1.** Correlations between vignette variables

	<b>Gender</b>	<b>Country of origin</b>	<b>Residence period</b>	<b>Employ- ment</b>	<b>German proficiency</b>	<b>Dual citizenship</b>
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

### 3. Full regression tables

**Table A2.** Multilevel modeling results

	Unconditional	Vignette	Vignette interactions	Respondent characteristics	Full model
Intercept	4.233*** (0.088)	2.841*** (0.077)	2.720*** (0.084)	4.212*** (0.212)	4.649*** (0.240)
Gender: Male (ref.: Female)		-0.099* (0.047)	0.129 (0.090)	0.107 (0.091)	0.096 (0.092)
Country of origin: Turkey (ref.: Great Britain)		- 0.368*** (0.059)	-0.362*** (0.057)	-0.367*** (0.057)	0.173 (0.142)
India		- 0.323*** (0.059)	-0.317*** (0.056)	-0.315*** (0.056)	0.068 (0.144)
Duration of residence: 5 years (ref.: 3 years)		0.120* (0.060)	0.148+ (0.080)	0.120 (0.080)	0.110 (0.081)
10 years		0.277*** (0.061)	0.315*** (0.080)	0.295*** (0.080)	0.294*** (0.081)
Language proficiency: Very good (ref.: Little)		1.347*** (0.047)	1.348*** (0.044)	1.357*** (0.045)	1.356*** (0.045)
Employment: Employed (ref.: Seeking employment)		0.949*** (0.047)	0.952*** (0.045)	0.947*** (0.045)	0.467*** (0.113)
Current citizenship: Renounce (ref.: Retain)		0.783*** (0.047)	0.972*** (0.064)	0.961*** (0.064)	-0.047 (0.157)
Current citizenship: Renounce × Gender: Male			-0.375*** (0.091)		- 0.351*** (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+ (0.066)	-0.120+ (0.066)
Age (resp.)				-0.004+ (0.002)	- 0.011*** (0.002)
Education (resp.): Realschule (10) (ref.: Hauptschule (8/9))				-0.097 (0.100)	-0.099 (0.100)
Abitur, Fachhochschulreife				0.003 (0.098)	0.000 (0.098)
No diploma/in school				-0.433 (0.403)	-0.429 (0.403)
Citizenship (resp.): Dual citizenship (ref.: Only German)				0.473*** (0.128)	0.471*** (0.128)
Third country				-0.039 (0.178)	-0.032 (0.178)
Region (resp.): East Germany (ref.: West Germany)				0.138 (0.091)	0.139 (0.091)
Immigration concern (resp.)				-0.237*** (0.020)	- 0.253*** (0.029)

Continued on next page

Economic concern (resp.)				-0.007 (0.019)	-0.006 (0.019)
Party preference (resp.): SPD (ref.: CDU/CSU)				0.480*** (0.113)	0.471*** (0.113)
Bündnis 90 / Die Grünen				0.199 (0.124)	0.201 (0.125)
FDP				0.132 (0.161)	0.124 (0.161)
Die Linke				0.011 (0.157)	0.016 (0.157)
AfD				-0.365** (0.115)	-0.367** (0.115)
Other				-0.378* (0.175)	-0.369* (0.175)
No preference				-0.032 (0.098)	-0.035 (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

#### 4. Likelihood-ratio test

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

Term	DF	LRT	<i>p</i>
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 $\times$ Country of origin	1	1.44	0.2339
Gender $\times$ Residence period	1	9.49	0.0027
Gender $\times$ Employment	2	0.02	0.9827
Gender $\times$ German proficiency	2	1.02	0.3642
Gender $\times$ Dual citizenship	1	17.78	0.0001
Country of origin $\times$ Residence period	1	0.86	0.3574
Country of origin $\times$ Employment	2	2.91	0.0596
Country of origin $\times$ German proficiency	2	0.27	0.7649
Country of origin $\times$ Dual citizenship	1	1.37	0.2449
Residence period $\times$ Employment	2	0.28	0.7530
Residence period $\times$ German proficiency	2	0.15	0.8649
Residence period $\times$ Dual citizenship	1	0.20	0.6589
Employment $\times$ German proficiency	4	1.39	0.2440
Employment $\times$ Dual citizenship	2	0.24	0.7884
German proficiency $\times$ Dual citizenship	2	0.99	0.3766



## 5. Full regression tables

Table A4. Multilevel modeling results

	Unconditional	Vignette	Vignette interactions	Respondent characteristics	Full model
Intercept	4.224*** (0.093)	2.665*** (0.080)	2.549*** (0.088)	3.796*** (0.205)	4.196*** (0.242)
Gender: Male (ref.: Female)		-0.103* (0.051)	0.120 (0.098)	0.103 (0.098)	0.092 (0.099)
Country of origin: Turkey (ref.: Great Britain)		- 0.399*** (0.064)	-0.395*** (0.061)	-0.397*** (0.061)	0.220 (0.159)
India		- 0.330*** (0.063)	-0.327*** (0.060)	-0.324*** (0.061)	0.155 (0.161)
Duration of residence: 5 years (ref.: 3 years)		0.144* (0.064)	0.156+ (0.086)	0.129 (0.087)	0.118 (0.087)
10 years		0.285*** (0.065)	0.314*** (0.086)	0.297*** (0.087)	0.296*** (0.087)
Language proficiency: Very good (ref.: Little)		1.496*** (0.051)	1.498*** (0.048)	1.507*** (0.049)	1.504*** (0.049)
Employment: Employed (ref.: Seeking employment)		1.061*** (0.051)	1.062*** (0.048)	1.061*** (0.049)	0.549*** (0.127)
Current citizenship: Renounce (ref.: Retain)		0.865*** (0.051)	1.063*** (0.069)	1.053*** (0.070)	0.031 (0.173)
Current citizenship: Renounce × Gender: Male			-0.393*** (0.098)		- 0.372*** (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 (0.061)	-0.068 (0.061)
Age (resp.)				-0.005** (0.002)	- 0.012*** (0.002)
Education (resp.): Realschule (10) (ref.: Hauptschule (8/9))				-0.105 (0.094)	-0.105 (0.094)
Abitur, Fachhochschulreife				-0.049 (0.092)	-0.050 (0.092)
No diploma/in school				-0.416 (0.351)	-0.407 (0.351)
Citizenship (resp.): Dual citizenship (ref.: Only German)				0.288* (0.123)	0.287* (0.123)
Third country				-0.038 (0.164)	-0.031 (0.164)
Region (resp.): East Germany (ref.: West Germany)				0.068 (0.083)	0.070 (0.083)
Immigration concern (resp.)				-0.164*** (0.019)	- 0.171*** (0.030)

Continued on next page

Economic concern (resp.)				-0.006 (0.018)	-0.005 (0.018)
Party preference (resp.): SPD (ref.: CDU/CSU)				0.396*** (0.104)	0.382*** (0.104)
Bündnis 90 / Die Grünen				0.055 (0.115)	0.054 (0.115)
FDP				0.041 (0.144)	0.031 (0.144)
Die Linke				-0.063 (0.141)	-0.060 (0.141)
AfD				-0.217* (0.107)	-0.226* (0.107)
Other				-0.445** (0.168)	-0.437** (0.169)
No preference				-0.118 (0.090)	-0.121 (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

## 6. Full regression tables

Table A5. Multilevel modeling results

	Unconditional	Vignette	Vignette interactions	Respondent characteristics	Full model
Intercept	4.317*** (0.059)	2.286*** (0.102)	2.101*** (0.115)	4.265*** (0.329)	4.846*** (0.370)
Gender: Male (ref.: Female)		-0.140* (0.059)	0.201+ (0.117)	0.173 (0.117)	0.157 (0.115)
Country of origin: Turkey (ref.: Great Britain)		- 0.572*** (0.075)	-0.561*** (0.074)	-0.565*** (0.074)	0.280 (0.211)
India		- 0.489*** (0.074)	-0.481*** (0.074)	-0.476*** (0.073)	0.208 (0.215)
Duration of residence: 5 years (ref.: 3 years)		0.173* (0.075)	0.204+ (0.105)	0.164 (0.104)	0.151 (0.103)
10 years		0.410*** (0.077)	0.485*** (0.106)	0.460*** (0.105)	0.458*** (0.104)
Language proficiency: Very good (ref.: Little)		1.973*** (0.059)	1.976*** (0.059)	1.989*** (0.059)	1.984*** (0.058)
Employment: Employed (ref.: Seeking employment)		1.385*** (0.059)	1.388*** (0.058)	1.384*** (0.058)	0.656*** (0.168)
Current citizenship: Renounce (ref.: Retain)		1.174*** (0.059)	1.459*** (0.084)	1.444*** (0.084)	-0.069 (0.231)
Current citizenship: Renounce × Gender: Male			-0.563*** (0.118)		- 0.524*** (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* (0.105)	-0.220* (0.105)
Age (resp.)				-0.005 (0.003)	- 0.015*** (0.004)
Education (resp.): Realschule (10) (ref.: Hauptschule (8/9))				-0.106 (0.159)	-0.110 (0.159)
Abitur, Fachhochschulreife				0.052 (0.156)	0.047 (0.156)
No diploma/in school				-0.637 (0.637)	-0.627 (0.638)
Citizenship (resp.): Dual citizenship (ref.: Only German)				0.749*** (0.205)	0.746*** (0.205)
Third country				-0.071 (0.282)	-0.059 (0.282)
Region (resp.): East Germany (ref.: West Germany)				0.190 (0.145)	0.196 (0.145)
Immigration concern (resp.)				-0.372*** (0.032)	- 0.381*** (0.044)

Continued on next page

Economic concern (resp.)	-0.012 (0.031)	-0.010 (0.031)
Party preference (resp.): SPD (ref.: CDU/CSU)	0.854*** (0.180)	0.837*** (0.180)
Bündnis 90 / Die Grünen	0.429* (0.198)	0.431* (0.198)
FDP	0.355 (0.255)	0.346 (0.255)
Die Linke	0.155 (0.249)	0.166 (0.249)
AfD	-0.568** (0.184)	-0.579** (0.184)
Other	-0.527+ (0.280)	-0.509+ (0.281)
No preference	0.083 (0.155)	0.081 (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

## **7. Bibliography**

GESIS - Leibniz-Institut für Sozialwissenschaften. 2023. "Allgemeine Bevölkerungsumfrage Der Sozialwissenschaften ALLBUS 2021." <https://doi.org/10.4232/1.14238>.