

ONLINE SUPPLEMENTARY MATERIAL

Great Expectations: The Effect of Democratic Ideals on Political Trust in European Democracies

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1. Robustness of the Latent Class Model Choice

Table A1 displays the goodness of fit statistics for selecting the optimal number of latent classes. The BIC is the most widely used statistic for assessing goodness of fit, and a smaller BIC indicates better model fit. A complementary approach is to evaluate the percent change in the likelihood chi-squared statistic L^2 in comparison to the one-class model (Magidson & Vermunt 2004: 176-177). Even though the absolute value of the BIC continues to decrease through the 6-class model, the percent reduction of the L^2 is minimal in the 6-class model. Based on these considerations, we selected the five-class model.

Table A1. Latent class analysis model fit statistics for democratic ideals

<i>Selecting optimal number of latent classes</i>	BIC(LL)	CAIC(LL)	L^2	Change L^2	Class.Err.
1-Class	1194720	1194742	414310		0.00
2-Class	1020489	1020523	239949	-0.42	0.04
3-Class	973207	973253	192535	-0.54	0.06
4-Class	955536	955594	174733	-0.58	0.08
5-Class	936685	936755	155751	-0.62	0.10
6-Class	929586	929668	148521	-0.64	0.12

Notes: European Social Survey, 2012 (n=54,673). BIC = Bayesian Information Criterion; LL = log likelihood; L^2 =likelihood ratio chi-square statistics. Entries are test statistics for latent class models identifying one and more clusters of respondents, based on 11 indicators of democratic ideals with ‘country’ as a covariate, missings imputed, and design weights applied. Optimal model highlighted in bold.

A2. Latent class measurement equivalence tests

In order to determine the viability of the latent classes as variables in subsequent cross-national analyses, it is necessary to test for whether the latent classes identified in the optimal model are equivalent across the countries in the data (Kankaraš, Moors & Vermunt, 2010; Kankaraš & Vermunt, 2014). Table A2 includes the fit statistics of tests for two kinds of measurement equivalence:

- (1) Partial equivalence means that the same latent construct (in this study, the five democratic ideals identified by the latent class groups) is valid across all of the groups under investigation (in this study, the 29 countries included in the study). The test of partial equivalence can be understood as parallel to the test for metric equivalence in factor analysis.
- (2) Homogeneous equivalence can be understood as parallel to the test for scalar equivalence in factor analysis.

The equivalence tests in Table A2 show that the partial equivalence model has the lowest BIC and is the optimal model. The subsequent models remove direct effects for single indicators to test whether full equivalence is found for specific indicators, testing first for indicators with the lowest bivariate residuals. The increased BIC in the models that selectively remove direct effects for single indicators shows that no indicators are fully homogeneous across countries, and therefore the partial equivalence model with direct effects (i.e. that allows the intercepts for each item to vary across countries) is the optimal model. The five-class partial equivalence model is comparable across countries, and can be used as data for next-step cross-national analyses.

Table A2. Latent class analysis measurement equivalence tests

<i>Measurement equivalence test, 5-class model</i>	BIC(LL)	CAIC(LL)	L ²	Change L ²	Class.Err.
Homogeneous model	929450	929632	326900		0.10
Heterogeneous model	917778	919808	295067	-0.10	0.10
Partial equivalence	913246	914044	303976	-0.07	0.11
Partial equivalence, 1 direct effect removed (meprief)	913905	914647	305245	-0.07	0.10
Partial equivalence, 1 direct effect removed (oppgrgv)	913885	914627	305225	-0.07	0.10

Notes: European Social Survey, 2012 (n=54,673). BIC = Bayesian Information Criterion; LL = log likelihood; L²=likelihood ratio chi-square statistics. Entries are test statistics for latent class measurement equivalence tests across countries for the 5-class model, based on 11 indicators of democratic ideals with ‘country’ as a covariate, missings imputed, and design weights applied. Optimal model highlighted in bold.

2. Cross-cultural equivalence of the political trust scale

Table A3. Factor analysis of the political trust scale for every country separately

	Belgium	Bulgaria	Switzerland	Cyprus	Czech R.	Germany
Parliament	.56	.86	.74	.75	.87	.71
Courts	.76	.78	.72	.58	.83	.57
Police	.52	.84	.78	.38	.77	.45
Politicians	.88	.92	.84	.89	.87	.72
Parties	.88	.90	.82	.90	.86	.77
Eigen Val.	2.720	3.703	2.579	2.641	3.517	2.126
Expl. Var.	54.4	74.1	51.6	70.3	70.3	42.5

	Denmark	Estonia	Spain	Finland	France	United K.
Parliament	.79	.69	.64	.61	.84	.76
Courts	.79	.74	.78	.67	.64	.61
Police	.49	.63	.76	.22	.43	.54
Politicians	.85	.77	.88	.73	.89	.86
Parties	.80	.74	.88	.70	.89	.88
Eigen Val.	2.840	2.557	3.132	1.883	2.832	2.732
Expl. Var.	56.8	51.1	62.6	37.7	56.6	54.6

	Hungary	Ireland	Israel	Iceland	Italy	Lithuania
Parliament	.88	.82	.79	.86	.75	.76
Courts	.86	.73	.76	.75	.67	.82
Police	.82	.52	.67	.67	.46	.63
Politicians	.93	.90	.87	.88	.68	.85
Parties	.91	.88	.82	.83	.71	.84
Eigen Val.	3.864	3.068	3.079	3.219	2.183	3.065
Expl. Var.	77.3	61.4	61.6	64.4	43.7	61.3

	Netherl.	Norway	Poland	Portugal	Russia	Sweden
Parliament	.73	.85	.76	.72	.84	.77
Courts	.38	.78	.67	.64	.82	.48
Police	.14	.63	.56	.41	.83	.37
Politicians	.88	.92	.82	.87	.86	.83
Parties	.86	.90	.79	.82	.85	.85
Eigen Val.	2.198	3.381	2.642	2.506	3.511	2.360
Expl. Var.	44.0	67.6	52.8	50.1	70.2	47.2

	Slovenia	Slovak R.	Ukraine	Kosovo
Parliament	.76	.77	.77	.76
Courts	.83	.81	.72	.69
Police	.60	.83	.68	.55
Politicians	.88	.80	.84	.75
Parties	.86	.79	.79	.81
Eigen Val.	3.119	3.207	2.903	2.569
Expl. Var.	62.4	64.1	58.1	51.4

As an additional test, we have also built more explicitly on the study by Marien (2011), where she has shown that, even when applying stricter criteria, the measurement scale is cross-culturally equivalent. As we use the same dataset as this previous study, we can therefore use these results. The only difference is that this study did not include Albania, Israel, Italy, Russia, Ukraine and Kosovo. As an additional check, we therefore repeated our analysis, but excluding these countries (Table A4). The conclusions we can draw from this more conservative analysis confirms our initial findings and this has been noted in the new version of the manuscript.

Table A4. Additional Robustness check: analyses on subsample of 29 countries for which cross-cultural equivalence was established in the literature

	Model V	Model VI
Interactions		
Good governance * Low expec.	-0.020*** (0.003)	
Good governance *High expec.	0.014*** (0.003)	
Good governance *Political rights	0.015*** (0.004)	
Good governance *Social rights	0.004 (0.004)	
Good Governance	0.060*** (0.009)	
Democratic Ideals (ref: Medium)		
High ideals	-1.385*** (0.236)	-0.237*** (0.027)
Low ideals	1.473*** (0.251)	-0.133*** (0.034)
Political rights	-1.178*** (0.319)	0.113*** (0.282)
Social rights	-0.476 (0.366)	-0.160*** (0.027)
Inter-class correlation	0.10	0.10

Control variables are the same as in the original analyses (age, age2, sex, education and left-right orientation) Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. *Source:* ESS, 2012.

3. Fixed effects analysis

Table A5. Explaining Political Trust: Fixed effects

	Model I (New - Fixed Effects)	Model I (original Multilevel as reported in the article)
Democratic Ideals (ref: Medium)		
Low ideals	-0.049 (0.033)	-0.050 (0.033)
High ideals	-0.272*** (0.025)	-0.273*** (0.025)
Political rights	0.114*** (0.027)	0.114*** (0.027)
Social rights	-0.157*** (0.026)	-0.158** (0.026)
Age	-0.043*** (0.003)	-0.043*** (0.003)
Age²	0.000*** (0.000)	0.000*** (0.000)
Sex (1=female)	-0.037* (0.018)	-0.037* (0.018)
Education (ref:low)		
Mid	0.087*** (0.024)	0.087*** (0.024)
High	0.439*** (0.025)	0.439*** (0.025)
Left-right	0.077*** (0.004)	0.077*** (0.004)
Constant	4.770*** (0.065)	2.277*** (0.290)
Intra-class correlation	0.2824	0.2750

Note: Entries are results of a fixed effects regression. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Source: ESS, 2012 N=43,277 within 29 countries.

4. Test for non-linear interaction effects

Table A6. Explaining Political Trust (non-linear interaction)

	Model I	Model II	Model III	Model IV	Model V	Model VI	Model VII
Democratic Ideals (ref: Medium)							
Low ideals	-0.050 (0.033)	-0.050 (0.033)	-0.050 (0.033)	-0.050 (0.033)	-0.050 (0.033)	0.929*** (0.145)	-0.261 (0.319)
High ideals	-0.273*** (0.025)	-0.272*** (0.025)	-0.273*** (0.025)	-0.272*** (0.025)	-0.272*** (0.025)	-1.054*** (0.139)	-0.210 (0.315)
Political rights	0.114*** (0.027)	0.114*** (0.027)	0.114*** (0.027)	0.114*** (0.027)	0.114*** (0.027)	-0.602** (0.187)	0.156 (0.421)
Social rights	-0.158** (0.026)	-0.158*** (0.026)	-0.158*** (0.026)	-0.158*** (0.026)	-0.158*** (0.026)	-0.326 (0.210)	-0.120 (0.474)
Age	-0.043*** (0.003)	-0.043*** (0.003)	-0.043*** (0.003)	-0.043*** (0.003)	-0.043*** (0.003)	-0.044*** (0.003)	-0.044*** (0.003)
Age ²	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
Sex (1=female)	-0.037* (0.018)	-0.037* (0.018)	-0.037* (0.018)	-0.037* (0.018)	-0.037* (0.018)	-0.041* (0.018)	-0.043* (0.018)
Education (ref:low)							
Mid	0.087*** (0.024)	0.087*** (0.024)	0.088*** (0.024)	0.087*** (0.024)	0.087*** (0.024)	0.079** (0.024)	0.076** (0.024)
High	0.439*** (0.025)	0.439*** (0.025)	0.440*** (0.025)	0.439*** (0.025)	0.440*** (0.025)	0.420*** (0.025)	0.414*** (0.025)
Left-right	0.077*** (0.004)	0.077*** (0.004)	0.077*** (0.004)	0.077*** (0.004)	0.077*** (0.004)	0.079*** (0.004)	0.079*** (0.004)
GDP/ cap (1000USD)		0.075*** (0.008)					
Established democracy			1.522*** (0.314)				
'Weak' democracy				-1.576** (0.528)			
Good governance (index)					0.046*** (0.006)	0.043*** (0.006)	-0.094*** (0.026)
Interactions, linear							
Good governance * Low expec.						-0.013*** (0.002)	0.032** (0.011)
Good governance *High expec.						0.010*** (0.001)	-0.020* (0.010)
Good governance *Political rights						0.009*** (0.002)	-0.017 (0.013)
Good governance *Social rights						0.002 (0.001)	-0.005 (0.015)
Interactions, non-linear							
Good governance ² * Low expec.							-0.000*** (0.000)
Good governance ² *High expec.							0.000** (0.000)
Good governance ² *Political rights							0.000* (0.000)
Good governance ² *Social rights							0.000 (0.000)
Constant	2.277*** (0.290)	1.154* (0.492)	4.876*** (0.206)	2.277*** (0.290)	3.765*** (0.249)	1.429** (0.482)	5.336*** (.819)
σ_{u0}^2	0.656*** (0.087)	0.537*** (0.071)	0.625*** (0.083)	0.485*** (0.064)	0.656*** (0.087)	0.635*** (0.085)	.450*** (0.061)
$\sigma_{Democratic\ ideals}^2$						0.059*** (0.010)	0.055*** (.010)
Intra-class correlation	0.2750	0.08926	0.1730	0.2248	0.1153	0.1104	0.0589

Note: Entries are results of a Multilevel regression. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Source: ESS, 2012 N=43,277 within 29 countries. Baseline model intra-class correlation: 0.28. The slope of 'democratic ideals' varies significantly over the countries ($\sigma_{Democratic\ ideals}^2 = 0.066$ with SE 0.011).

5. Controls for potential outliers

Table A6. Explaining Political Trust: Without potential influential cases

	Model VI (new on 25 countries)	Model VI (original 29 countries)
Interactions		
Good governance * Low expec.	-0.029*** (0.004)	-0.013*** (0.002)
Good governance *High expec.	0.017*** (0.003)	0.010*** (0.001)
Good governance *Political rights	0.015*** (0.004)	0.009*** (0.002)
Good governance *Social rights	0.003	0.002
Democratic Ideals (ref: Medium)		
Low ideals	2.269*** (0.306)	0.929*** (0.145)
High ideals	-1.618*** (0.278)	-1.054*** (0.139)
Political rights	-1.169** (0.361)	-0.602** (0.187)
Social rights	-0.408 (0.440)	-0.326 (0.210)
Age	-0.044*** (0.003)	-0.044*** (0.003)
Age ²	0.000*** (0.000)	0.000*** (0.000)
Sex (1=female)	-0.019 (0.018)	-0.041* (0.018)
Education (ref= low)		
Mid	0.128*** (0.025)	0.079** (0.024)
High	0.494*** (0.025)	0.420*** (0.025)
Left-right	0.064*** (0.004)	0.079*** (0.004)
Good governance (index)	0.079*** (0.009)	0.043*** (0.006)
Constant	-1.656* (0.752)	1.429** (0.482)
σ_{u0}^2	0.475*** (0.069)	0.635*** (0.085)
$\sigma_{Democratic\ ideals}^2$	0.062*** (0.011)	0.059*** (0.010)
Intra-class correlation	0.0682	0.1104

Note: Entries are results of a Multilevel regression. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Source: ESS, 2012. Baseline model intra-class correlation: 0.28. The slope of 'democratic ideals' varies significantly over the countries ($\sigma_{Democratic\ ideals}^2 = 0.066$ with SE 0.011).

Figure A1. Marginal effects without outliers

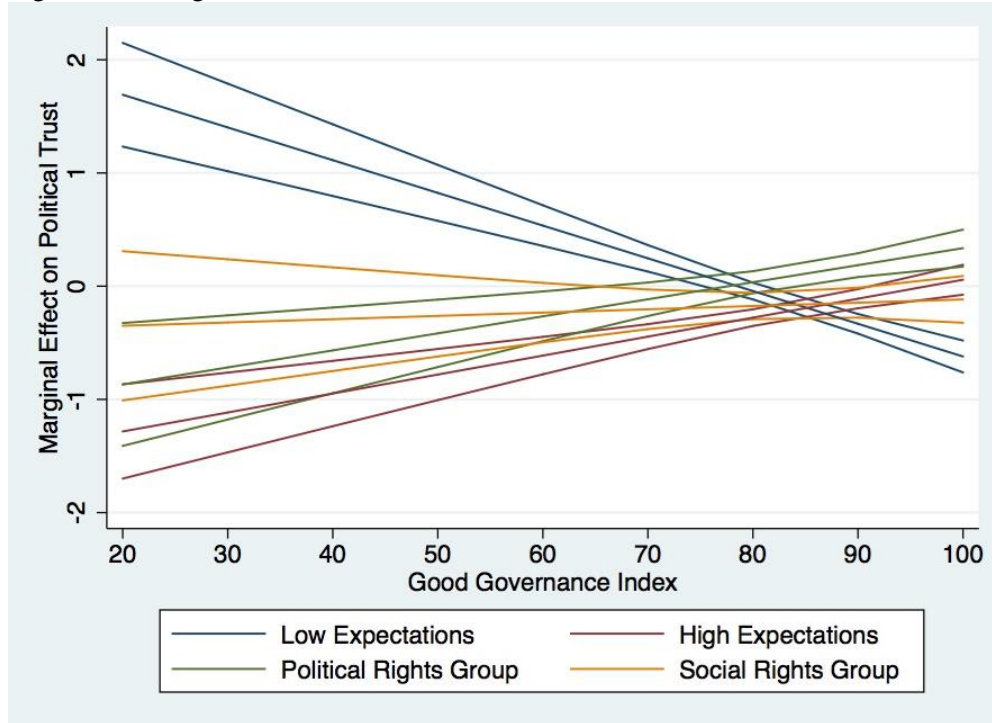


Figure A2. Marginal effects with distribution of countries

