VII. APPENDIX

A.I The PELA-USAL database

The Latin American Parliamentary Elites Research Project of the Ibero-American Institute of the University of Salamanca (PELA-USAL) was launched in 1994. This research has pioneered the analysis of parliamentary elites in general, and of Latin American elites in particular. Its extensive databases are available by country and accessible through its website: https://oir.org.es/pela/. After nearly three decades of work, and thanks to a comparative research approach, the PELA-USAL results have come to be the main open source for data on the attitudes and opinions of legislators in Latin America.

The gathering of information by PELA-USAL is conducted through a standardized questionnaire, applied in person to parliamentary representatives at the beginning of each legislature. This standardization allows for comparison by country. The sample conducted by legislative period is stratified according to the number of seats held by each political party, covering some 85% to 90% of the chamber in smaller congresses (such as that of Costa Rica) and 50% to 75% of the chamber in other countries – except in Argentina, Mexico, and Brazil where (due to the size of their legislatures) the numbers range between 20% and 25% of members. Information on the distribution of data analyzed in this article by country, year of fieldwork, legislature, interviews conducted, and samples is provided in Table A.1.

Table A.1: Distribution of interviews

Country	Year of fieldwork	Legislature	Interviews conducted	% of the chamber	Sampling error
Bolivia	2015	(2015-2020)	93	71,54%	+/- 5,85
Costa Rica	2018	(2018-2022)	44	77%	+/- 6,88
Ecuador	2017	(2017-2021)	88	64,23%	+/- 6,39
El Salvador	2018	(2018-2021)	79	94,04%	+/- 2,15
Guatemala	2016	(2016-2020)	78	49%	+/- 8,52
Honduras	2018	(2018-2022)	92	71,87%	+/- 5,54
Mexico	2016	(2015-2018)	100	20%	+/- 9,29
Nicaragua	2018	(2018-2022)	59	64,8%	+/- 7,74
Panama	2014	(2014-2019)	47	70%	+/- 10,46
Peru	2018	(2016-2021)	73	56,15%	+/- 7,55
Dominican Republic	2017	(2016-2021)	61	32,1%	+/- 7,38
Venezuela	2016	(2016-2021)	67	40%	+/- 8,95
			Total: 881		

Source: PELA-USAL

A.II. Confirmatory factorial operationalization strategy

Discussion around the use of Bollen or Goertz (or Sartori) as an aggregation mechanism for items that measure populism as a multidimensional construct becomes less relevant when the questionnaire items selected are those proposed by Akkerman *et al.* (2014)[1]. The majority of these questions – including those used in our analysis – are 'double-barreled' and present a certain duality in their formulation that serves to measure more than one dimension. That is, they have the advantage of

[1] Akkerman, A., Mudde, C., & Zaslove, A. (2014). How Populist Are the People? Measuring Populist Attitudes in Voters. Comparative Political Studies, 47(9), 1324-1353. Doi: 10.1177/0010414013512600.

taking into account (at least in part) the non-compensatory dimensions of the concept during the measurement phase and before operationalization[2] – "it has the advantage of at least partly accounting for the concept's non-compensatory dimensions before operationalization already at the stage of measurement," according to Wuttke *et al.* (2020: 361). In cases such as this, "if all items were measuring the intersection of all concept components, then it would be unnecessary to account for the dimensions' non-compensatory relationship in the aggregation procedure"[3] (Wuttke *et al.*, 2020)[4]. However, on the scale proposed by Akkerman *et al.* (2014), only some (and not all) of the items present this characteristic.

The theoretical conceptualization of populism in the study by Akkerman *et al.* (2014) is based on Mudde's (2007) definition ("Populism is a thin-centered ideology that considers society to be ultimately separated into two homogeneous and antagonistic groups, 'the pure people' and 'the corrupt elite', and which argues that politics should be an expression of the *volonté générale* (general will) of the people"). These authors take into consideration three (necessary and sufficient) conditions of populist attitudes: popular sovereignty, opposition to the elite, and Manichean division ("sovereignty of the people, opposition to the elite, and the Manichean division between "good" and "evil"); however, probably due to the nature of the questions referred to above, as well as the focus of analysis, operationalization does not take these factors directly into consideration. The original source does not select and distribute items (questions) into these three (sufficient and necessary) dimensions of the theoretical construct it proposes.

Since this approach to measuring populist attitudes begins with an analysis of principal components to differentiate populism from pluralism and elitism (that is, to differentiate it from what it "is not"), the measurement approaches populism as a unidimensional concept (opposed to others). Despite this, the authors do mention in their text the presence of dimensions within populism – see the first column of Table A.3 for the explanation by Akkerman *et al.* (2014).

Returning to this issue, and in order to resolve the problem that not all items on the Akkerman scale measure "the intersection of all concept components," Wuttke *et al.* (2020) interpreted the multidimensionality of the theoretical construct from the work of Akkerman *et al.* (2014) by proposing two strategies for operationalization and disaggregating the scale into one with several components (Table A.3).

Taking into account these two proposals, we proceeded to combine them while making a modification. We followed the second strategy suggested by Wuttke *et al.* (2020) for the construction of the first dimension, but we modified this for the second. Where their proposal indicates measurement of the dimensions "Anti-elitism" and "Manichean outlook" separately, we unified these (see the final two columns of Table A.3). Two decisions justify this modification. First, keeping to a single item for measurement of a Manichean outlook could bias the results for the general construct when the Goertz operationalization is applied to obtain a composite index of populist attitudes, thus producing results that do not account for of the true complexity of survey responses. For example, when the values in the other items are consistently high but a very low value is recorded in this item

[2] According to Wuttke, Schimpf, and Schoen (2020: 361), these also carry the disadvantage of presenting an "ambiguous meaning of low values or greater differential item functioning.". Wuttke, A., Schimpf, C., & Schoen, H. (2020). When the whole is greater than the sum of its parts: On the conceptualization and measurement of populist attitudes and other multi-dimensional constructs. American Political Science Review, 114, 356-374. Doi: 10.1017/S0003055419000807

[3] "Under these circumstances, aggregating the items with simple averages – as if they reflected one dimension – would be feasible; the composite score would still assess populist attitudes as an attitudinal syndrome because the necessary conditions were already accounted for at the stage of measurement." (Wuttke et al., 2020: XXXIV)

[4] Supplementary material for de article Wuttke *et al.*, 2020.

(which constitutes a dimension in itself), Goertz's logic would imply taking this as the general value of populism.

On the other hand, given that in the second operationalization strategy proposed by Wuttke, item POP3 from the Akkerman scale had already been excluded from the construction of the first dimension ('sovereignty') and joined with POP5 to create the 'anti-elitism' dimension, it makes more theoretical and empirical sense for item POP7 ("In politics, what is called 'consensus' really means to renounce one's own principles" – POP202 in PELA) to be added to the second dimension, which our study has termed 'anti-elitist antagonism'.

In this way, the three conditions that according to the literature must be present for the measurement of populist attitudes are all taken into consideration but are configured into two dimensions for their operationalization: people-centrism and anti-elitist antagonism.

Table A.2: Correspondence of Akkerman *et al.* (2014) scale items with PELA-USAL for the measurement of populist attitudes

Items from Akkerman *et al.* (2014)	Items from PELA
POP1: The politicians in the [NATIONAL] Parliament need to follow the will of the people	POP101. Los políticos en la Cámara tienen que seguir la voluntad del pueblo
POP2: The people, and not politicians, should make our most important policy decisions	POP203. Las decisiones más importantes deberían ser tomadas por el pueblo y no por los políticos
POP3. The political differences between the elite and the people are larger than the differences among the people	POP103. Las diferencias políticas entre la clase política y el pueblo son más grandes que las diferencias que existen en el pueblo
POP4. I would rather be represented by a citizen than by a specialized politician	POP204. Es preferible ser representado por un ciudadano común que un político experimentado
POP5. Elected officials talk too much and take too little action	POP105. Los políticos hablan mucho y hacen muy poco
POP7. What people call "compromise" in politics is really just selling out on one's principles	POP202. En política se llama consenso a lo que realmente significa renunciar a los propios principios
POP6. Politics is ultimately a struggle between good and evil *Not included in the final scale*	*Not included in the questionnaire*
POP8. Interest groups have too much influence over political decisions *Not included in the final scale*	*Not included in the questionnaire*

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Table A.3: Construction of the dimensions of populism

Construction of dimensions in the proposal of Akkerman *et al.* (2014)	Interpretation of the dimensions of Akkerman *et al.* (2014) in the proposal of Wuttke, Schimpf & Schoen (2020)		Alternative construction of the dimensions of Akkerman *et al.* (2014) in the proposal of Wuttke, Schimpf & Schoen (2020)		Construction of dimensions in the proposal of our study	
"The first four items reflect ideas about representative government, reflecting the ideas that there is a division between the people and the politicians (the elite) and that politicians do not represent the true will of the people. In addition, POP3 ("The political differences between the elite and the people are larger than the differences among the people") focuses on the idea that the people have more in common with one another than with the elite. The ideas on this scale express a view of the political world that resembles the belief in popular sovereignty combined with a negative view of representative government, directed primarily at existing politicians." (2014: 1332-34).	Anti-elitism and sovereignty dimension	POP1 a POP4 "Specifically, using weighted or unweighted summary scores, one would first aggregate POP1 through POP4 into a composite index to reflect the conjunct acceptance of anti-elitist and sovereignty-supporting views." (2020: XXXVI)	Sovereignty dimension	POP1, POP2, POP4 "As POP1, POP2, POP4 all relate to the distribution of political power –more specifically to the tenet of transferring power from the elites to the people– we understand these items as measuring one's support for popular sovereignty as the items' most salient facet and thus grouped these items to the respective sovereignty dimension." (2020: XXXVI)	People-centrism dimension	POP101, POP203, and POP204 (In Akkerman *et al.* (2014): POP1, POP2 and POP4)
"The Manichean nature of the distinction between the people and the elites is also a feature of our survey questions: statements POP5, POP6, and POP7 are intended to emphasize that the distinction between the people	Anti-elitism and Manichean outlook dimension	POP5 and POP7 "The second index of POP5 and POP7 would reflect a person's conjunct acceptance of anti-elitist and of Manichean orientations." (2020: XXXVI).	Anti-elitism dimension	POP3 y POP5 "POP3 ("The political differences between the elite and the people are larger than the differences among the people"), in contrast, assesses differences	Anti-elitist antagonism dimension	POP103, POP105, and POP202 (In Akkerman *et al.* (2014): POP3, POP5, and POP7

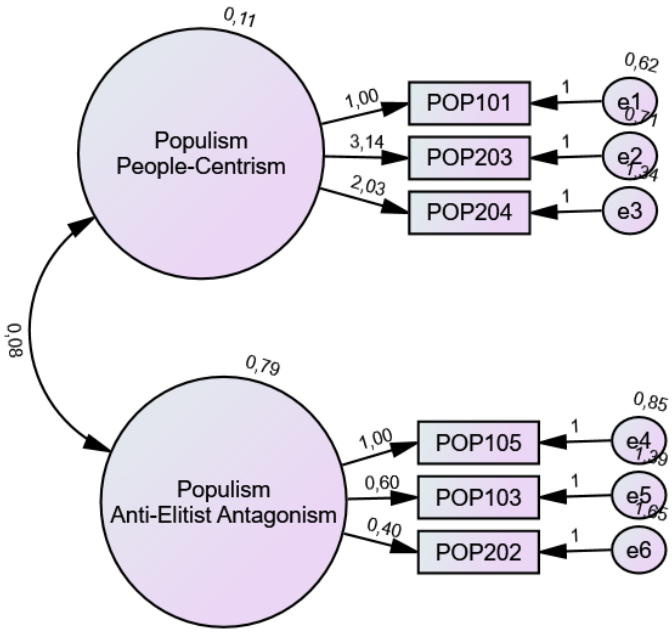
and the elite is a battle between good and evil." 2014: 1331). "The Manichean dimension, that is, the tension between "good" and "evil", is captured in the questions POP5 through POP7. The first Manichean statement, POP5 ("Elected officials talk too much and take too little action"), loads high on the populist dimension. However, this is not the case for the second Manichean statement, POP6 ("Politics is ultimately a struggle between good and evil")." (2014: 1334). "Item POP7 ("What people call 'compromise' in politics is really just selling out on one's principles") loads high on both the populism dimension and the elitism dimension". (2014: 1335).				between the elite and the people and refers to popular sovereignty only indirectly, and we thus grouped this item in the anti-elitism dimension We also grouped POP5 ("Elected officials talk too much and take too little action") in the anti-elitist dimension in line with the Schulz *et al.* populism scale which also uses the item in indicator of anti-elitist orientation." (2020: XXXVII)		
			Manichean outlook dimension	POP 7 "Finally, as POP7 ("What people call "compromise" in politics is really just selling out on one's principles") refers to elites only indirectly but assesses one's general outlook on political issues, we interpreted it as mainly reflecting the Manichean dimension." (2020: XXXVII).		

A.III. Confirmatory factor analysis

Table A.4: CFA fit indices for populist attitudes

Fit index	Value
Chi squared ²	34.782 (0.000)**
Discrepancy between ² and degrees of liberty (CMIN/DF)	4.348
Root Mean Square Error of Approximation (RMESA)	0.064
Comparative Fit Index (CFI)	0.884
Adjusted Goodness of Fit Index (AGFI)	0.963
Goodness of Fit Index (GFI)	0.986

Diagram A.2: CFA RESULT with UNSTANDARDIZED RESIDUALS



A.IV. Box plot by country (Populist Attitudes)

Figure A1: People-centrism attitudes by country

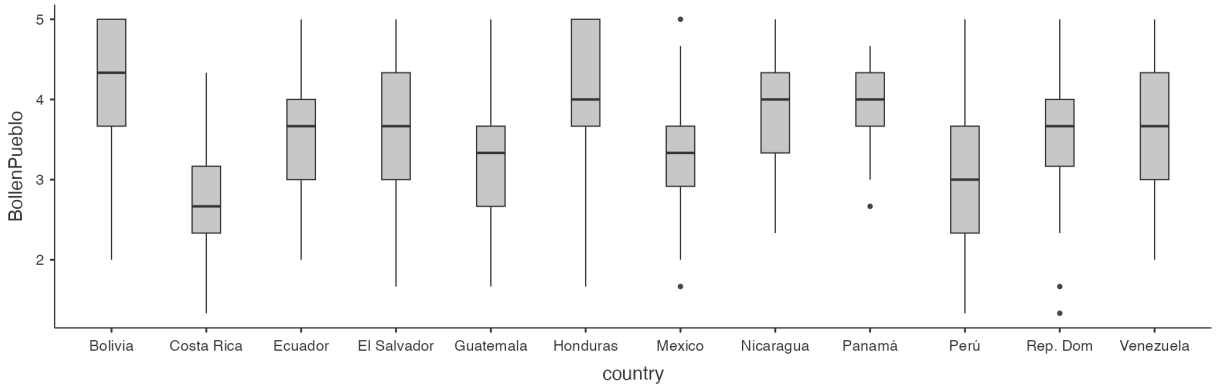


Figure A2: Anti-elitist antagonism attitudes by country

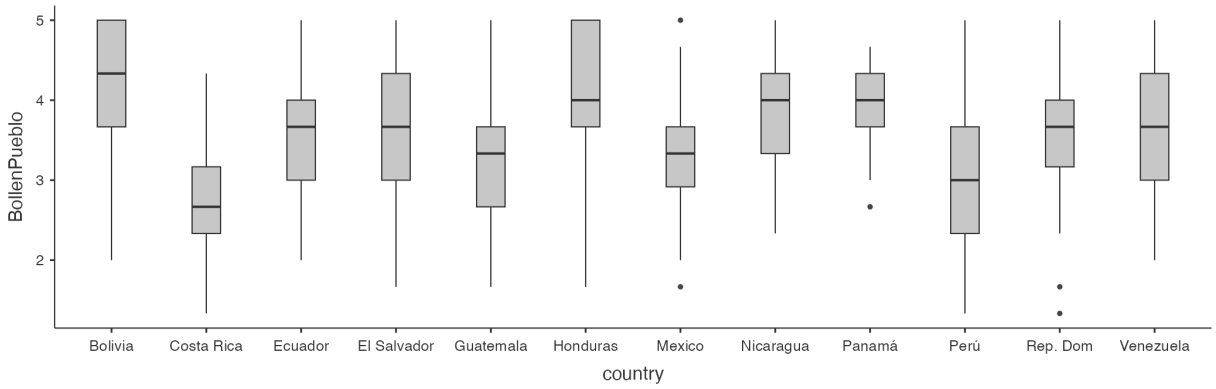


Figure A3: Populist attitude (Bollen) by country

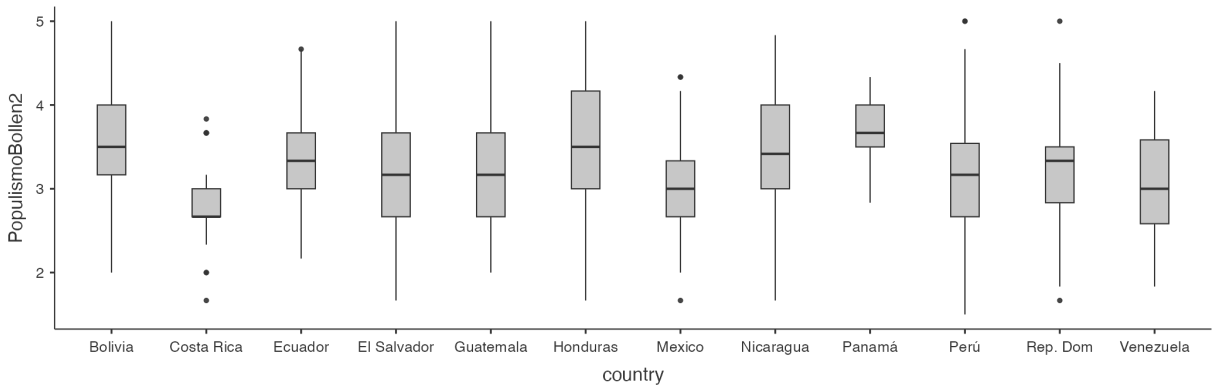
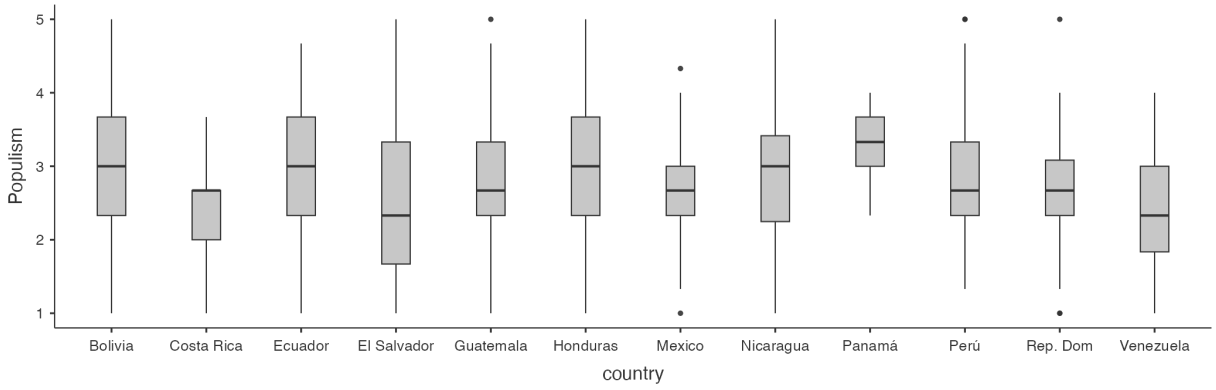


Figure A4: Populist attitude by country (Independent Variable)



A.V. Box plot by country (Variables Dependent)

Analysis 1

Figure A5: Satisfaction with democracy by country

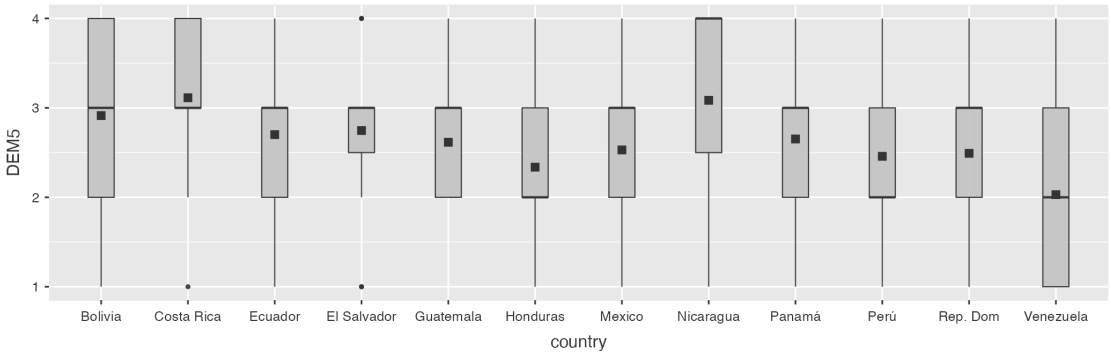
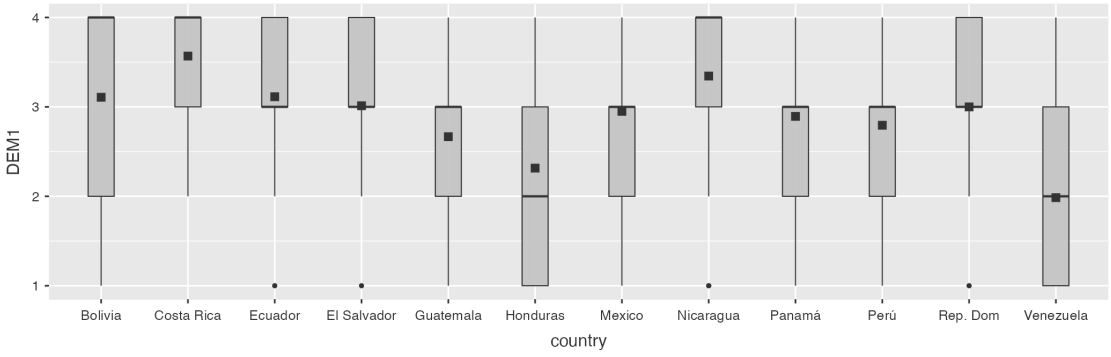


Figure A6: Stability of democracy by country



Analysis 2

Figure A7: Elections preference by country

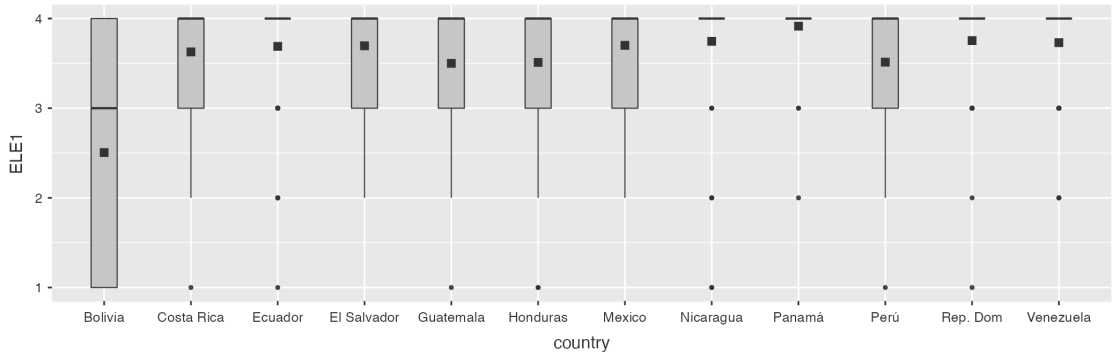


Figure A8: Political Party Trust by country

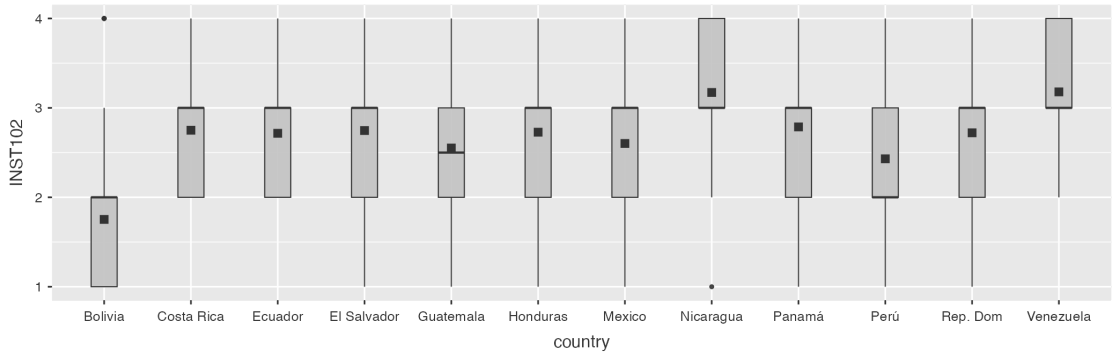


Figure A9: Parliament Trust by country

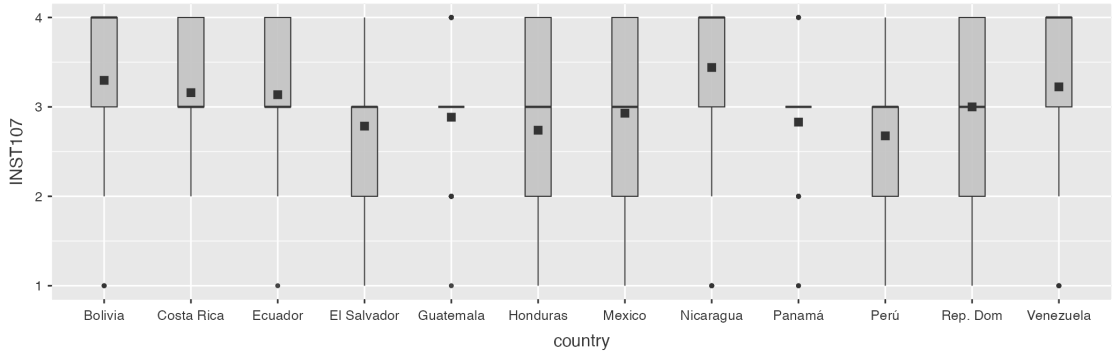
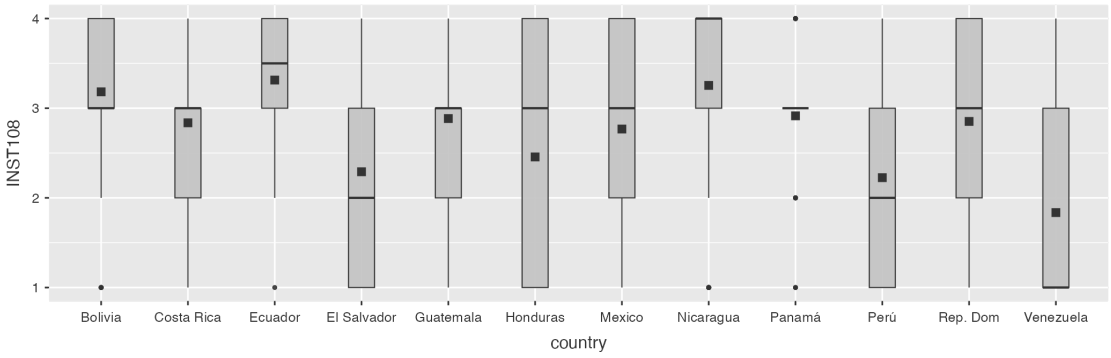


Figure A10: President Trust by country



Analysis 3

Figure A11: Independent Judiciary by country

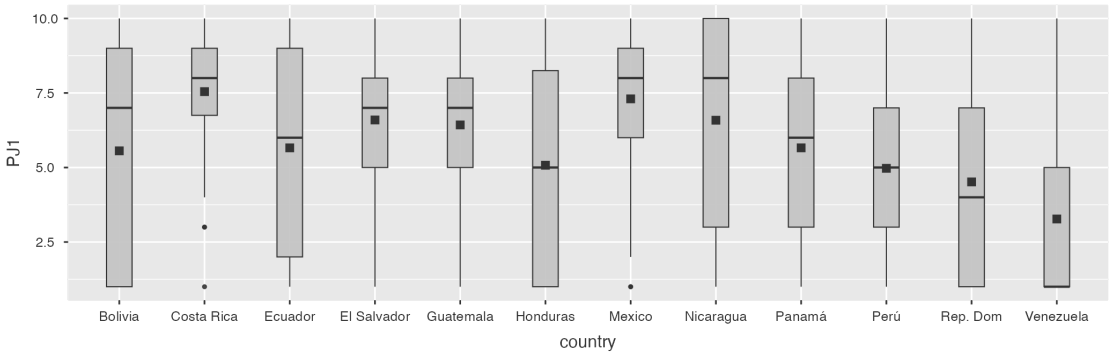
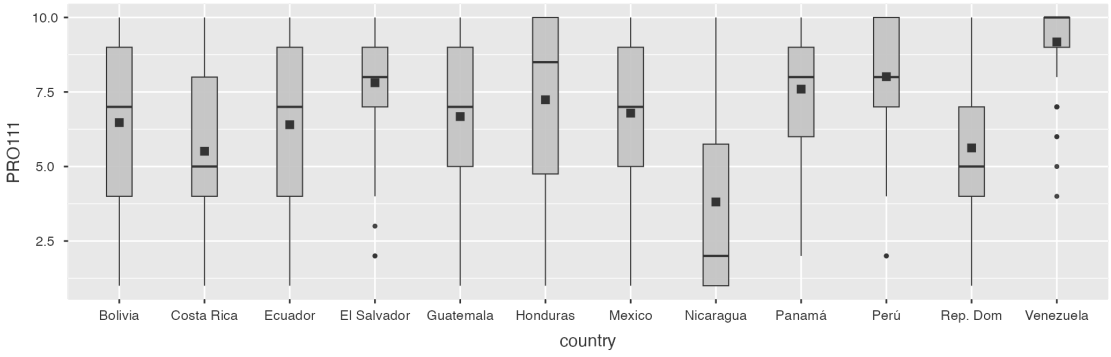


Figure A12: Conflicts between powers by country



A.VI Analysis 1: Populist attitude, satisfaction with democracy and assessment of its stability

The dependent variables of analyses 1 are ordinal (Likert scale 1-4) and models have been estimated through Linear Mixed Models and Ordinal Logistic Mixed Model, the results have proven virtually identical, guaranteeing their robustness. For the sake of better visualization, the LMMs have been left in the text of the article and the OLMMs provided here in the Appendix.

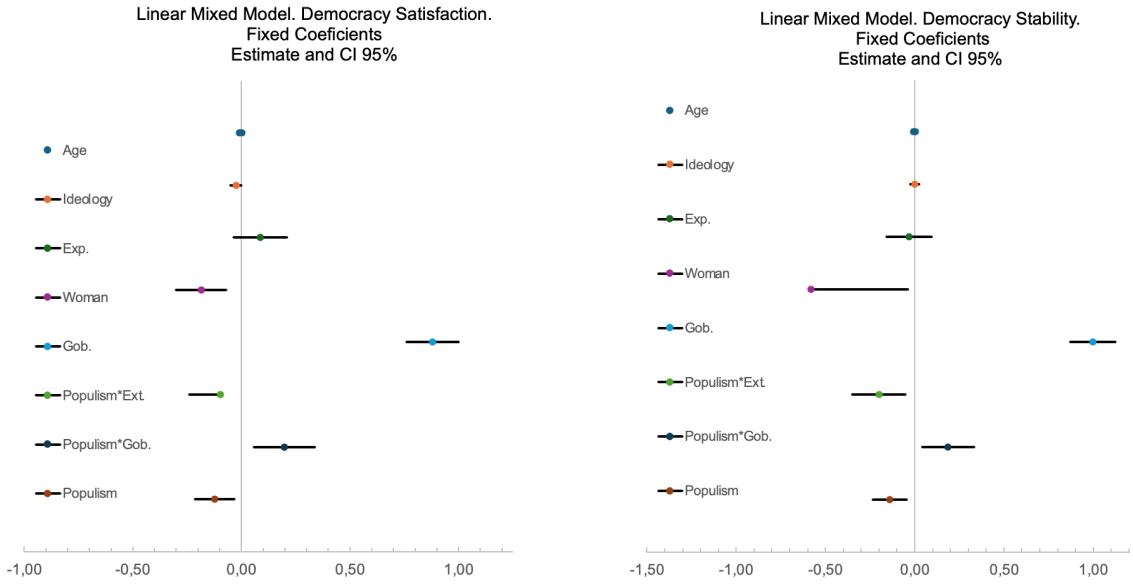
Table A5. Ordinal logistic mixed model (OLMM) (Analysis 1): satisfaction and stability of democracy

	Stability of democracy		Satisfaction with democracy	
	Model 1	Model 2	Model 1	Model 2
Fixed Effects				
Threshold 1				
Not at all stable/Slightly stable	0.087 *** (0.296)	-0.042*** (0.339)		
Very dissatisfied/Dissatisfied			0.111*** (0.249)	0.057*** (0.276)
Threshold 2				
Slightly stable/Fairly stable	0.410** (0.282)	0.278 *** (0.320)		
Dissatisfied/Satisfied			0.635* (0.235)	0.430*** (0.256)
Threshold 3				
Fairly stable/Very stable	2.506*** (0.282)	2.607** (0.317)		
Satisfied/Very satisfied			6.155*** (0.244)	7.719*** (0.266)
Populism	0.579*** (0.082)	0.700** (0.123)	0.604*** (0.081)	0.729** (0.122)
Populism*government		1.503** (0.198)		1.806** (0.194)
Populism*extremism		0.621** (0.205)	-	0.500*** (0.199)
In government		11.418*** (0.188)		10.242*** (0.189)
Sex (ref: woman)		0.648** (0.160)		0.642** (0.158)
Age		0.993 (0.006)		0.989 (0.006)
Ideological position		0,994 (0.032)		0.936* (0.031)
Experience		0.941 (0.166)		1.253 (0.164)
Random Effects (country)				
Intercept Variance	0.871	1.08	0.591	0.670
LogLikelihood	-1009.162	-814.358	-1004.611	-812.793
AIC	2028.325	1652.717	2019.221	1649.587
BIC	2051.920	1708.364	2042.810	1705.218
Deviance	5897.820	5200.570	4873.242	4333.355
ICC	0.209	0.247	0.152	0.166
AjustedR²	0.29	0.73	0.23	0.72
N	828	763	827	762

Odds Ratio, standard errors in parentheses

* p < 0.05, ** p < 0.01, *** p < 0.001
Number of groups: 12

Figure A13. (Analysis 1) Effect sizes of variables from Model 2 LMM on satisfaction and stability of democracy (fixed effects)



A.VII Analysis 2: Populist attitude and support for and trust in the institutions of liberal representative democracy

The dependent variables of analyses 2 are ordinal (Likert scale 1-4) and models have been estimated through Linear Mixed Models and Ordinal Logistic Mixed Model, the results have proven virtually identical, guaranteeing their robustness. For the sake of better visualization, the LMMs have been left in the text of the article and the OLMMs provided here in the Appendix.

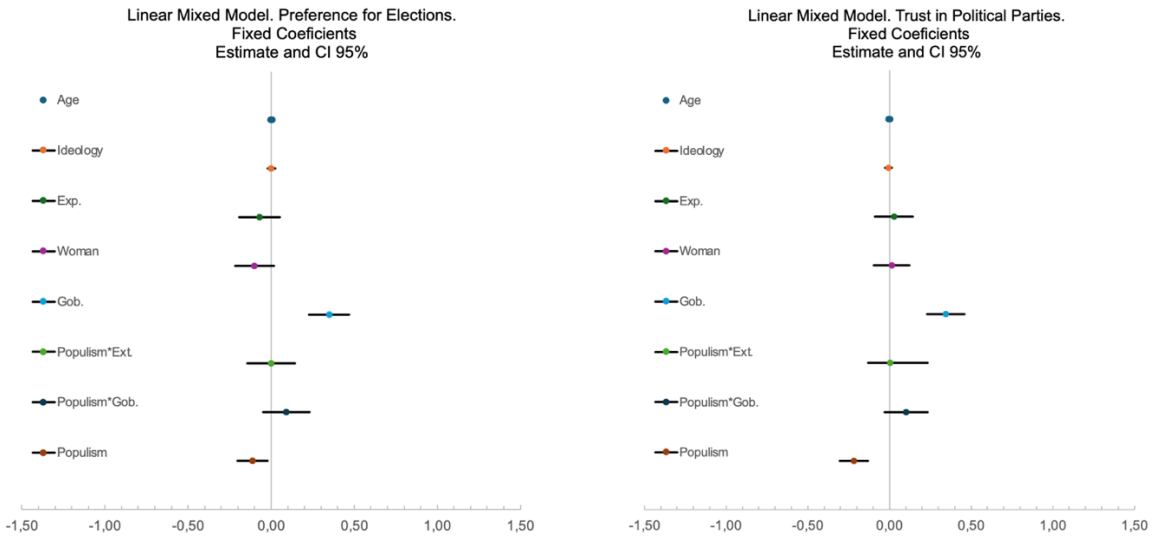
Table A6. Ordinal logistic mixed model (OLMM) (Analysis 2): support for and trust in the institutions of democracy

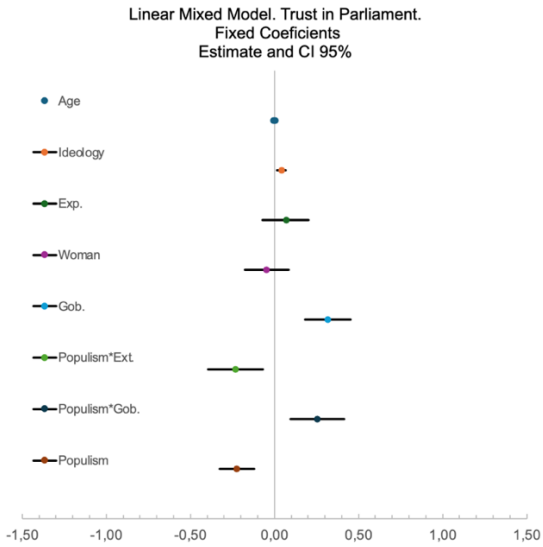
	Election		Party Trust		Parliament trust		President Trust	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Fixed Effects								
Threshold 1								
None/Little	0.034*** (0.293)	0.028*** (0.332)	0.042*** (0.329)	0.027*** (0.380)	0.045** (0.228)	0.036*** (0.253)	0.207*** (0.273)	0.058*** (0.290)
Threshold 2								
Little/Some	0.0956*** (0.264)	0.085*** (0.298)	0.735 0.295)	0.619 0.339	0.348*** (0.183)	0.307*** (0.205)	0.656 (0.267)	0.266*** (0.277)
Threshold 3								
Some/A lot	0.359*** (0.249)	0.352*** (0.282)	7.358*** (0.304)	7.748*** (0.347)	1.999*** (0.181)	1.934*** (0.201)	2.564*** (0.269)	2.806*** (0.274)
Populism	0.722***	0.753*	0.542***	0.507***	0.611)***	0.619***	0.600***	0.912

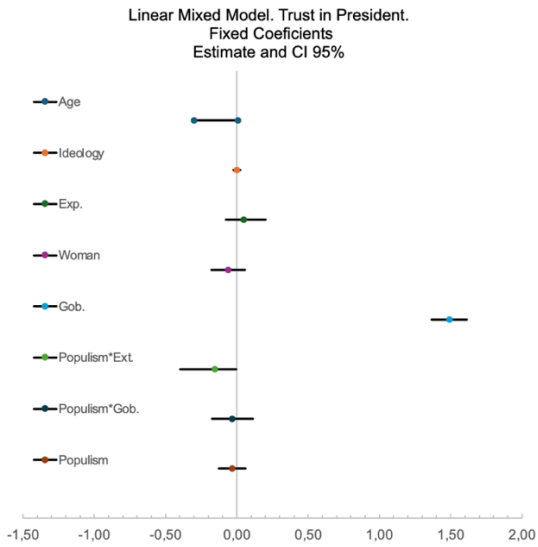
	(0.095)	(0.137)	(0.086)	(0.130)	(0.082	(0.120)	(0.082)	(0.123)
Populism*governm.		1.305 (0.237)		1.339 (0.194)		1.659** (0.190)		0.905 (0.199)
Populism*extrem.		0.906 (0.238)	-	1.012 (0.683)		0.591 (0.200)**		0.607** (0.214)
In government		2.822*** (0.205)		2.633*** (0.168)		2.164*** (0.163)		41.78*** (0.226)
Sex (ref: woman)		0.713 (0.180)		1.008 (0.158)		0.934 (0.153)		0.874 (0.165)
Age		1.002 (0.007)		0.995 (0.006)		0.998 (0.006)		1.008 (0.007)
Ideological position		1.034 (0.038)		0.979 (0.032)		1.095** (0.031)		0.977 (0.033)
Experience		0.792 (0.195)		1.073 (0.166)		1.177 (0.162)		1.206 (0.171)
Random Effects (country)								
Intercept Variance	0.643	0.810	0.973	0.670	0.319	0.383	0.784	0.733
LogLikelihood	-690.459	-629.778	-901.951	-788.738	-978.979	-881.692	-1059.103	-757.556
AIC	1390.918	1283.555	1813.902	1601.476	1967.958	1787.384	2128.206	1539.112
BIC	1414.494	1339.202	1837.479	1657.091	1991.541	1843.015	2151.777	1594.727
Deviance	7594.405	6988.093	4759.371	4300.487	6327.529	5745.358	5697.982	4757.546
ICC	0.163	0.198	0.228	0.278	0.0884	0.104	0.192	0.182
AjustedR²	0.20	0.32	0.33	0.46	0.18	0.28	0.27	0.76
N	825	763	827	761	826	762	824	761

Odds Ratio, standard errors in parentheses
* p < 0.05, ** p < 0.01, *** p < 0.001
Number of groups: 12

Figure A14. (Analysis 2) Effect sizes of variables from Model 2 LMM on support and trust in institutions (fixed effects)







A.VIII Analysis 3: Populist attitude and support for and separation powers

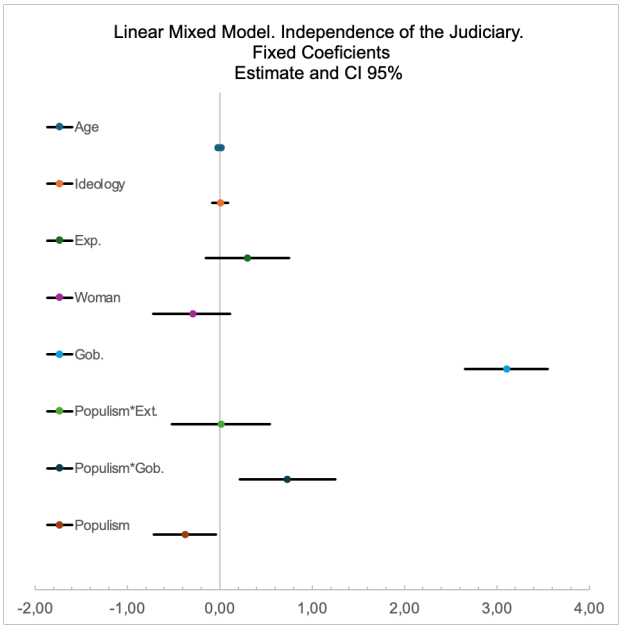
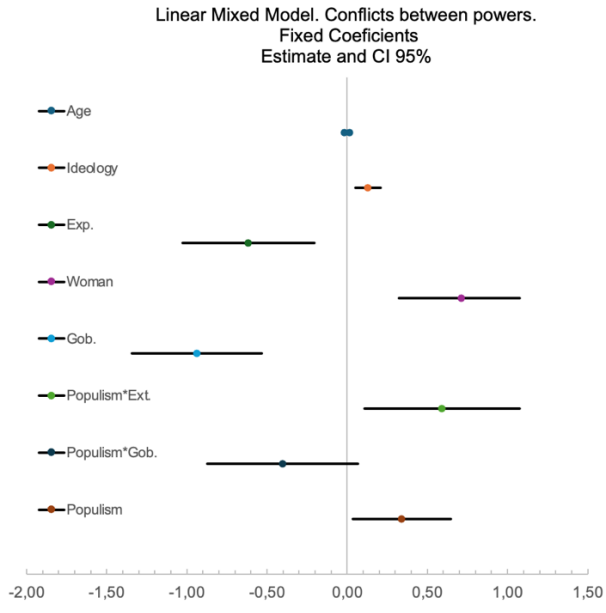



Figure A15. (Analysis 3) Effect sizes of variables from Model 2 LMM on separation of powers (fixed effects)